

## Original Research Article

### The Influence of Competence and Training on Teacher Performance is Mediated by Creativity InAsn Teachers

#### ABSTRACT

The study aims to test the influence of competence and training on the performance of teachers in the State High School with creativity as a mediation variable. The research method used is quantitative causal research. The population of this study is as much as 88 teachers in the first preventive school of the state of PusakanagaraSubang. The sample in this study covers the entire population that exists. Data analysis method using Structural Equation Model-partial Least Square (SEM-PLS). The results of the research show that: (1) competence has a positive and significant impact on teacher performance, (2) training has a significant and positive impact on teachers performance, (3) competences have a significant positive influence on creativity, (4) competencies have a positive, significant influence upon creativity; (5) creativity has a positive and significant effect on teacher's performance, (6) competences influence positive and meaningful influence of teacher performance through creativity. 7) training influence positive and meaningful influence of teacher performance through creativity. Conclusion: that competence, training and creativity can be used to improve teacher performance. Contribution: Competence, training and creativity can be the basis of policy to improve teacher performance especially in the field of education. Novelty: Creativity plays an important role as a mediator of competence and training to improve teacher performance.

*Keywords: Competency, Training, Creativity, Teacher Performance, Junior High School*

#### 1. INTRODUCTION

The governments very serious about paying attention to the education sector to create a quality gen Teachers play a key role in formal education as models and main influences on students.Educational suc influenced by the ability and quality of teacher performance. Teachers need to have basic skills, competence, creativity and innovation to achieve educational goals. Teachers are required to continue to improve their abilities, provide examples, and develop students' creativity. However, the reality on the ground shows variations in the quality of te including some who prioritize part-time work over their main duties as teachers.

In 2021, the achievements related to the percentage of teachers and professional education staff will be 54.65%, or 1,645,42 people out of a total of 3,010,856 teachers. This achievement is lower than the target, namely 57.30%, with an achievement percentage of 95.38%. When compared with the 2020 achievement of 55.91%, there was a decrease in the achievement in 2021, but in 2020 the realization was achieved more than the target. In 2022, the achievement regarding the percentage of teachers and professional education personnel will be 51.90%, lower than the target, namely 59.71%, with an achievement percentage of 86.92%. When compared with the 2021 achievement of 54.65%, there is a decrease in achievement, namely 2.74 points in 2022. This achievement shows a decline from year to year, meaning that there is still a lack of professional teaching staff and the low quality of teachers, which is why it is wrong one factor in achieving less than optimal teacher performance.

Based on teacher performance data at SMPN Pusakanagara, although in general it can be seen that performance achievements are more dominant in the good category, there are still very few teachers who have ve performance and are even considered rare. In terms of management, if there are those who are better or very means that performance is still not optimal. In increasing the effectiveness of learning activities, teachers must b creative and innovative. Teachers must have creativity in delivering learning material, there is a need to deliver material using various models of learning methods and media, foster enthusiasm for student learning, different assessment techniques. Quality learning really depends on student motivation and teacher creativity. However, the teacher at PusakanagaraSubang showed the opposite, namely that the teacher was less creative in the learning process.

Training is provided for teaching staff in facing the challenges of the world of education and to help optimize more innovative learning, by attending workshops and exchanging ideas and experiences with fellow teachers so that they can gain more knowledge. Based on interviews with public relations at SMPN 1 Pusakanagara, there are several teachers or

**Comment [h1]:** The context is unclear. Which government and which country are you referring to?

**Comment [h2]:** The context is still unclear to the readers.

**Comment [h3]:** There are no references for this information.

**Comment [h4]:** The author needs to specify the country and clarify what is meant by the term "SMPN."

**Comment [h5]:** The reference(s)?

not all teachers who have received training, but the training that has been implemented has not been able to change the teacher's mindset. Not only are many facilitators unable to convey the essence of the training, the implementation of the training is often not in accordance with the program and agenda. which had been planned, the schedule was compressed, the quality of the assignments during the training was not controlled and billed properly, so that after attending the training, there were no changes to the learning process carried out by the teacher in the classroom. Yuliati & Liana (2022) prove that competency has a positive and significant influence on teacher performance. However, research Umar et al. (2022) found that competency partially has a negative effect on teacher performance. But in Research Yanita (2023) that Teacher competency has no effect on teacher performance. Likewise with research by Rehman (2020) proves that training has a significant effect on teacher performance, supported by Basalamah et al. (2022). But instead, research Aisyah et al. (2022) found that training had no influence on teacher performance. Based on several previous researchers, it is known that there are inconsistencies in the research results. Therefore, researchers feel the need to conduct further research regarding variables that are thought to influence teacher performance in this research.

Various studies have attempted to test various factors that influence performance, such as the competence of researchers Yuliati & Liana (2022) and training (Basalamah et al., 2022; Rehman, M., Ansari, RH, & Ali, 2020). Apart from the various results of these studies, there is one variable that is very crucial and overlooked in the analysis process, namely creativity. Because the challenges teachers face in teaching are very diverse, which means a teacher is required to be creative, such as using a variety of learning strategies. With these considerations, researchers want to make creativity a mediating variable between competence and training. Based on research by Loren Sianturi & Melisa Hutabarat (2023) which proves that the results of this research show that there is a positive and significant influence of teacher professionalism on creativity. and Dzikri (2023) proves that training has a positive and significant effect on increasing creativity. Apart from that, it is certain that teacher creativity contributes to teacher performance, based on research by Serang et al. (2023). Supported by Lindawati et al. (2022) that teacher creativity has a positive and significant influence on teacher performance. However, on the contrary, research conducted by Ratnasari et al. (2021) shows that the influence of creativity on teacher performance is negative and not significant. " Based on the literature above , the aim of this research is to determine the effect of competency and training on teacher performance mediated by creativity . "

## 2. MATERIAL AND METHODS

### A. Teacher performance

Teacher performance is the teaching achievement resulting from the activities carried out by teachers in their main tasks and functions in concrete realization which is a logical consequence as a professional in the field of education. (Regulation of the Minister of National Education (Permendiknas) No. 41 of 2007)

### B. Creativity

Utami Munandar, (2017) defines creativity as the process of producing new consequences for actions. These new results arise from the unique characteristics of individuals who interact with other individuals, experiences, and life circumstances.

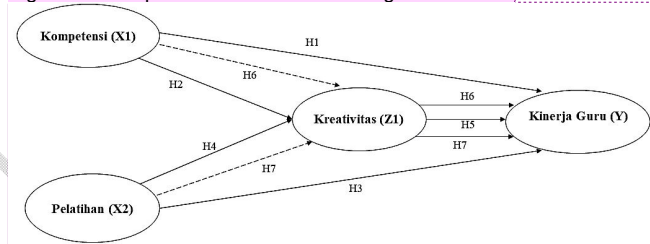
### C. Competence

The abilities that must be possessed by a teacher are stated in the regulation of the Minister of National Education (Permendiknas) number 16 of 2007 concerning academic qualification standards and teacher competencies, defining teacher competency as the qualifications possessed by a teacher which include the knowledge, skills, and attitudes needed to carry out their professional duties effectively and efficiently.

### D. Training

Training is giving employees the skills they need to do their jobs. training is any effort to improve job performance in a particular job that is currently being answered or a job that is related to the job to be effective. (Dessler, 2015)

Fig .1 Teacher performance is the teaching achievement



based on these theories, the framework of this study is as follows:

method with an associative causality approach. Data sources are primary data and secondary data. Primary data was collected using questionnaires, secondary data using books, journals and scientific literature. The research objects were all ASN (State Civil Apparatus) teachers at SMPN in the Pusakanagara District, Subang Regency. The sample used was 88 ASN teachers. The data collection technique in this study is non-probability sampling using saturated samples.

**Comment [h6]:** Again, the conceptual definition of the terms used by the author such as « competency » was unclear to the readers.

**Comment [h7]:** The authors cited three references with opposing results without providing any details about the context of these studies, the study samples, or other important factors that justified their decision to consider these references over many others.

**Comment [h8]:** Same remark as previous

**Comment [h9]:** Where are the research questions?

**Comment [h10]:** These concepts and framework have to be part of the literature review

**Comment [h11]:** Need to be translated in english language

Questionnaires with a Likert scale of 1-5. The analysis technique uses the Structural Equation Model (SEM), namely SmartPLS.4 version 4.1.0. The data will be analyzed with two models. The measurement model (outer model) is a measurement model that connects indicators with latent variables. The structural model (inner model) is a structural model that connects latent variables.

The illustration of the Structural Equation Model-Partial Least Square (SEM-PLS) model in this study can be described as follows:

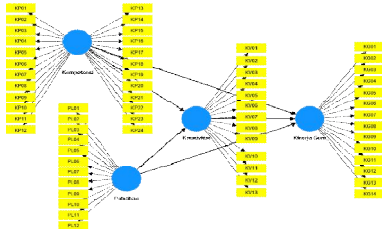


Fig.2 Illustration of the Structural Equation Model-Partial Least Square (SEM-PLS) model Based on the Structural Equation Model Image

Construct variables consist of:

Endogenous : teacher performance and creativity

Exogenous : competence, training and creativity

The Inner or structural model consists of:

KG: Teacher Performance KP = Competence

PL: Training KV = Creativity

Outer model or measurement in the form of construct variable instruments, namely:

1. Performance

**Table 1. Teacher performance**

Outer	Instrument Construct Teacher Performance
KG.01	Formulate learning objectives of lesson plans according to the curriculum
KG.02	Compile teaching materials sequentially
KG.03	Plan effective learning activities
KG.04	choose learning resources according to the material in the learning strategy
KG.05	Start learning effectively
KG.06	Master the lesson material
KG.07	Implement effective learning approaches
KG.08	Utilize learning resources
KG.09	Maintain student involvement
KG.10	Use correct language
KG.11	End learning effectively
KG.12	Design evaluation tools to measure progress in learning success
KG.13	Use assessment strategies to monitor progress in learning outcomes in achieving certain competencies according to the lesson plan
KG.14	Utilize assessment results to provide feedback on learning progress

Source: Permendiknas) No. 41 tahun 2007)

1. Creativity

**Table 2. Creativity**

Outer	Instrument Construct Creativity	outer	Instrument Construct Creativity
KV.01	Fluency	KV.08	Incubation
KV.02	Flexibility	KV.09	Illumination
KV.03	Originality	KV.10	Verification
KV.04	Elaboration	KV.11	Novelty
KV.05	Internal Drivers	KV.12	Solving
KV.06	External Drivers	KV.13	Details
KV.07	Preparation		

Source: Utamimunandar, (2017)

2. Competence

**Table 3. Competence**

Outer	Instrument Construct Variable Competence
KP.01	Mastering the characteristics of students

- KP.02 Mastering educational learning theories.
- KP.03 Developing a curriculum related to the subjects taught
- KP.04 Organizing educational learning.
- KP.05 Utilizing information and communication technology for learning purposes.
- KP.06 Facilitating the development of students' potential to actualize their potential
- KP.07 Communicating effectively with students.
- KP.08 Organizing assessments in evaluating the learning process and outcomes.
- KP.09 Utilizing the results of evaluation assessments for learning purposes.
- KP.10 Taking reflective action to improve the quality of learning
- KP.11 Acting in accordance with Indonesian national culture
- KP.12 Presenting oneself as a role model for students
- KP.13 Presenting oneself as an authoritative person.
- KP.14 Demonstrating a high work ethic, responsibility
- KP.15 Upholding the code of ethics of the teaching profession.
- KP.16 Acting objectively and not discriminating.
- KP.17 Communicating effectively with fellow educators
- KP.18 Adapting to a place of duty that has socio-cultural diversity
- KP.19 Communicating with one's own professional community and other professions
- KP.20 Mastering materials that support the subjects taught.
- KP.21 Mastering the basic competency standards of the subjects taught
- KP.22 Developing the learning materials taught creatively.
- KP.23 Developing professionalism sustainably with reflective actions.
- KP.24 Utilizing information and communication technology to develop oneself

(permendiknas) nomor 16 tahun 2007

#### 4. Training

**Table 4. Training**

Outer Instrument Construct Variable Training	outer Instrument Construct Variable Training
PL01 Adequate Competence	PL07 Having clear targets
PL02 Motivating participants	PL08 Increasing ability.
PL03 Need for feedback	PL09 Suitability of material with training objectives.
PL04 Enthusiasm to follow Training	PL10 Material target setting
PL05 Desire to pay attention	PL11 Improving training participant skills.
PL06 Suitability of method with type of Training	PL12 Understanding of work ethics of training participants

(Dessler, 2015)

#### Model evaluation SEM-PLS

**Table 5. Outer model analysis test instrument**

(Outer Model)	Parameter	Rule of Thumb
Validitas Convergent	Outer Loading dan (AVE)	> 0.7 States the level of validity
	(AVE) (Akarkuadrat AVE) Fornelldanlacker HTMT	> 0.50 has sufficient discriminant each construct > than the correlation between constructs with other constructs < 0.90 discriminant validity evaluation is accepted
Reliabilitas	Cronbach Alpha dan Composite Realibility	• > 0.70 States the level of reliability or internal consistency of measurement

(hair et al, 2021)

**Table 6. Instrument test analisis inner model**

Criteria	Statistical Measures
R-Square	0.67, 0.33, and 0.19 (strong, moderate and weak models)
Q2	Q2>0 indicates the model has predictive relevance
Effect Size f2	0.02, 0.15 and 0.35 (Small, medium and large)
GoF	0.02, 0.25 and 0.35 (weak, moderate, strong)
Model Fit (VIF)	(SRMR) below 0.1 (good fit) (indicates model suitability) VIF value>5, meaning there is a critical collinearity problem VIF value <3, meaning there is no collinearity problem
PLS Predic	if all indicators = high prediction If the majority or the same number = medium prediction A minority of one indicator = low prediction

Hipotesis It can be said that there is a significant influence if the p-value <0.05, the T statistic value > T table (1.987) at the 5% level,

(hair et al, 2021)

**RESULTS AND DISCUSSION**

This research was conducted by collecting the opinions of teachers at SMPN 1, 2 and 3 PusakanagaraSubang. Pusakanagara 1 Middle School which is located on Jl. Raya TimurPusakanagara No.31 Pusakanagara District Subang 41255. SMPN 2 Pusakanagara which is located on Jl. Raya PanturaMundusari Km 02 PusakanagaraSubang 41255. And SMPN 3 Pusakanagara which is located on Jl. Pusakanagara Km 3.5 KalentamboPusakanagara District Subang 41255. The characteristics of the 88 respondents are as follows. The sample in this study was dominated by female respondents 53%, while male 47%. age 21 - 30 years 22%, dominated by 31-40 years 30%, 41 - 50 years 22%, > 50 years 24%. not certified Teachers 57% certified 43%, from group III 85%, group IV 15% Last education S1 99%, S2 only 1%, work period 2-7 years 25% the dominant is 8-13 years 33%. 14 - 19 years 20% and > 20 years 22%.

**Comment [h12]:** The author needs to explain how the sample is representative, phrasing it in a way that is clear and accessible to both regional and international readers.

**A. Measurement model (outer model)**

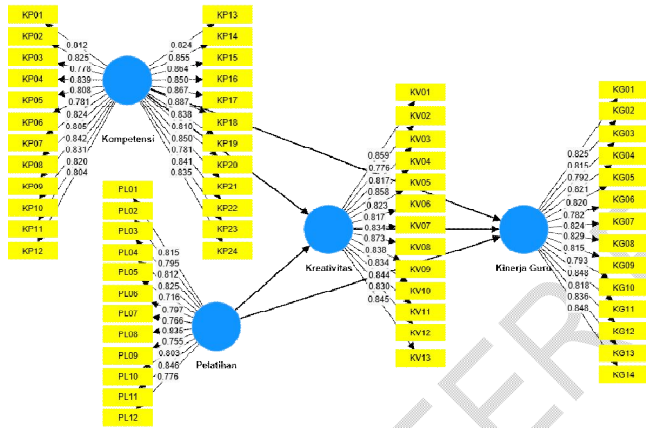


Fig .3 Evaluation of the measurement model

Source: Output Smart PLS 4.1.0.0, (2024)

Overall, each item that measures the variables of competence, training, creativity and performance has a Loading Factor  $\geq 0.70$  so that it meets convergent validity.

**Comment [h13]:** Here, you could write: These results are derived from the current study; These results are from the current study.

**Table 7. Results of Conbach alpha values, composite reliability, AVE**

Variable	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
Teacher Performance	0,962	0,964	0,671
Competence	0,980	0,981	0,686
Creativity	0,964	0,965	0,697
Training	0,948	0,961	0,633

Source: Output Smart PLS 4.1.0.0, (2024)

The table shows that all research variables have a cobach alpha value and composite reliability of more than 0.7. And has an AVE value of more than 0.5 so it can be concluded that all variables have met discriminant validity (hair, 2021)

**Table 8. Fornell Larcker Criterion Test Results**

Variable	Teacher Performance	Competence	Creativity	Training
Teacher Performance	<b>0,819</b>			
Competence	0,712	<b>0,829</b>		
Creativity	0,763	0,588	<b>0,835</b>	
Training	0,690	0,618	0,631	<b>0,796</b>

Source: Output Smart PLS 4.1.0.0, (2024)

From the table shows that the Square Root of AVE values are 0.819, 0.829, 0.835 and 0.796. These values are greater than the correlation of each construct and meet the criteria of discriminant validity.

**Table 9. HTMT Test Results**

	Teacher Performance	Competence	Creativity
Competence		0,723	
Creativity	0,785	0,600	

**Comment [h14]:** Here, you could write: These results are derived from the current study; These results are from the current study.

Training 0,681 0,633 0,625

Source: SmartPLS 4.1.0.0 Output, (2024)

The test results show that the HTMT value is below 0.90 for the variable pair, so the discriminant validity is achieved.

**Comment [h15]:** Here, you could write: These results are derived from the current study; These results are from the current study.

**B. Structural model evaluation (inner model)**

The inner model test can be seen from the determination coefficient value / R-Square (R2), Effect Size (F2), predictive relevance (Q2), and GoF, while the significant coefficient path to test the hypothesis is to predict the relationship between latent variables.

**- Test results of the R-Square (R2) and Predictive Relevance (Q2) values**

The determination coefficient R-Square (R2) shows how much the exogenous variables explain the endogenous variables.

**Table 10. R-Square (R2)**

Variable endogen	R-square
Teacher Performance	0,711
Creativity	0,462

Source: Output SmartPLS 4.1.0.0, 2024

Based on the R-Square value in table 10, it shows the magnitude of the influence of Competence, Training and Creativity on Teacher Performance of 71.1%. and has a relationship with the category "Strong" while the remaining 29.9% is explained by other variables outside the study. In the Creativity construct of 0.462, the magnitude of the influence of Competence, and Training on Creativity is 46.2%. including the influence of "moderate"

**Comment [h16]:** Here, you could write: These results are derived from the current study; These results are from the current study.

**-Results of the effect size f2 test**

The effect size is used to determine how much the exogenous latent variable can support the endogenous latent variable

**Table 11. Effect size f2**

connection	f-square	Effect size
Competence -> Teacher Performance	0,197	Sedang
Competence -> Creativity	0,118	Sedang
Creativity -> Teacher Performance	0,359	Tinggi
Training -> Teacher Performance	0,081	Rendah
Training -> Creativity	0,216	Sedang
Training -> Creativity->Teacher Performance	0,036	Rendah
Competence -> Creativity->Teacher Performance	0,019	Rendah

Source: SmartPLS 4.1.0.0 output, 2024.

**Comment [h17]:** These terms are still in the author's original language.

**- Predictive Relevance (Q2) results**

Relevance (Q2) measures how well the observed values are generated by the model

**Table 12. Predictive Relevance Q2**

Variable endogen	Q²predict
Teacher Performance	0,552
Creativity	0,417

Source: SmartPLS 4.1.0.0 Output, 2024.

In table 12, the endogenous variables that show Q²predict values of 0.417 (creativity) and 0.552 (teacher performance), the Predictive Relevance (Q2) value > 0 means that it can be concluded that the model has a relevant predictive value.

**Comment [h18]:** Same remark as above

**- GoF Index Results**

The formula for calculating GoF is as follows

$$GoF = \sqrt{Com \times R2} = \sqrt{(0,612+0,638)/2 \times (0,711+0,462)/2} = \sqrt{0,625 \times 0,587} = \sqrt{0,3666} = 0,605$$

**Table 13. Gof index test results**

Rata-rata Coummunality	Rata-rata R square	IdexGof
0,625	0,587	0,605

Source: SmartPLS 4.1.0.0 Output, 2024

Table 13 shows the GoF index result is 0.605 including high GoF. The overall level of fit of the structural measurement model is included in the high category.

**- Model Fit Evaluation**

**Table 14. Model fit test results**

	Saturated model	Estimated model
SRMR	0,078	0,078

Source: SmartPLS 4.1.0.0 Output, 2024

Table 14 shows that the SRMR value is 0.078 < 0.10, it can be concluded that the model in this study has a Good Fit.

**- Collinearity Statistic (VIF) Results**

Inner VIF to see whether there is multicollinearity between variables

**Table 15. Inner VIF**

Variable	Teacher Performance	Creativity
Creativity	1,860	
Competence	1,808	1,617
Training	1,966	1,617

Source: SmartPLS 4.1.0.0 Output, 2024 (algorithm)

The estimation results show an inner VIF value <3, so the level of multicollinearity between the variables is low. then collinearity is not a problem or there is no multicollinearity between the variables that affect teacher performance and creativity. These results strengthen the results of parameter estimation in SEM PLS which is robust (unbiased).

**-The strength of the predictive power of a model**

Comparing the predictive power of PLS with the Linear Regression Model (LM). The size compared is the error or error of the RSME and MAE predictions, so to determine a good prediction the error must be low. So PLS must be lower than LM

**Table 16. Comparison of RMSE and MAE (PLS vs LM Model)**

	PLS RMSE	PLS MAE	LM_ RMSE	LM_ MAE		PLS RMSE	PLS MAE	LM_ RMSE	LM_ MAE
KG.01	0,566	0,454	0,721	0,547	KV.01	0,697	0,540	0,805	0,605
KG.02	0,598	0,466	0,800	0,601	KV.02	0,539	0,430	0,712	0,534
KG.03	0,640	0,483	0,958	0,713	KV.03	0,655	0,485	0,802	0,605
KG.04	0,608	0,468	0,748	0,533	KV.04	0,639	0,480	0,727	0,541
KG.05	0,562	0,455	0,858	0,635	KV.05	0,748	0,575	1,145	0,883
KG.06	0,582	0,485	0,831	0,637	KV.06	0,555	0,383	0,713	0,561
KG.07	0,460	0,361	0,481	0,350	KV.07	0,625	0,490	0,699	0,545
KG.08	0,578	0,454	0,588	0,426	KV.08	0,690	0,519	0,997	0,740
KG.09	0,788	0,614	1,001	0,732	KV.09	0,682	0,483	0,890	0,636
KG.10	0,761	0,587	1,048	0,718	KV.10	0,523	0,386	0,743	0,527
KG.11	0,593	0,437	0,692	0,523	KV.11	0,588	0,402	0,802	0,621
KG.12	0,633	0,523	0,712	0,541	KV.12	0,885	0,672	1,200	0,906
KG.13	0,756	0,591	0,858	0,646	KV.13	0,609	0,491	0,873	0,637
KG.14	0,612	0,472	0,693	0,505					

Source: SmartPLS 4.1.0.0 Output, 2024

Table 16. shows that the measurement items of all PLS model indicators have lower RMSE and MAE values than the LM model (linear regression) except for items KG.07 and KG.08 which have higher MAE values than the LM model. This means that the PLS SEM Model has medium predictive power or is approaching high predictive power.

**- Testing Hypothesis**

To test the proposed hypothesis, it can be seen from the *Original Sample* and the *T-Statistic value* through the *Bootstrapping procedure*. According to Hair *et al.* (2021), the path coefficient value is in the range of -1 to +1, where a path coefficient value close to +1 represents a strong positive relationship and a path coefficient value of -1 indicates a strong negative relationship. Meanwhile, the *T-Statistic value limit* for rejecting and accepting the proposed hypothesis is  $\pm 1,987$ , where if the *T-Statistic value* is in the value range  $< 1,987$  then the hypothesis will be rejected or in other words accept the null hypothesis (H0).

**Table 17 Results of Direct Effect Hypothesis Testing**

Hypothes	Direct Effects (DE)	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values	decision
Hypo 1	Competency -> Teacher Performance	0.321	0.313	0.154	2,082	0.037	Accepted
Hypo 2	Competence -> Creativity	0.321	0.314	0.113	2,831	0.005	Accepted
Hypo 3	Creativity -> Teacher Performance	0.439	0.447	0.105	4,169	0,000	Accepted
Hypo 4	Training -> Teacher Performance	0.215	0.212	0.107	2,000	0.04 6	Accepted
Hypo 5	Training -> Creativity	0.433	0.447	0.102	4,236	0,000	Accepted

Source: SmartPLS 4.1.0.0 Output, 2024

Based on Table 17, it can be seen that

**H1: competence has a positive and significant effect on teacher performance.** This is shown by the test results between these two variables which show that there is an *original sample value* (0.321) and has a *T-Statistic value* (2.082 > 1.987) or p value (0.037 < 0.05). Thus it can be concluded that the better the teacher's competence, the greater the teacher's performance. This shows that the higher the teacher's competence, the higher the teacher's performance.

**H2: Competence has a positive and significant influence on creativity**

Competence has a positive and significant effect on creativity. This is shown by the test results between these two variables which show that there is an *original sample value* (0.321) and has a *T-Statistic value* of 2.831 (>1.987) or p value (0.005 < 0.05). Thus it can be concluded that competence influences creativity.

**H3: Creativity has a positive and significant effect on teacher performance.** This is shown by the test results between these two variables which show that there is an *original sample value* (0.439) and has a *T-Statistic value* of 4,169 (>1,987) or p value (0.000 < 0.05). Thus it can be concluded that better creativity causes teacher performance to increase.

**H4: Training has a positive and significant effect on teacher performance.** This is shown by the test results between the two variables which show that there is an *original sample value* (0.215) and has a *T-Statistic value* of 2,000 (> 1.987) or p value (0.046 < 0.05). Thus it can be concluded that better training leads to increased opportunities for teacher performance.

**H5: Training has a positive and significant effect on creativity.** This is shown by the test results between these two variables which show an *original sample value* of 0.433 and a *T-Statistic value* of 4.236 (> 1.987) or p value (0.000 < 0.05). Thus it can be concluded that the better and more focused the training program in the company causes increased creativity.

**Table 18 Results of Indirect Effect Hypothesis Testing**

Hypothesis	indirect effects	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	Decision
Hypothesis 6	Competence --> Creativity -> Teacher Performance	0.141	0.14 2	0.066	2.1 17	0.034	Accepted
Hypothesis 7	Creativity -> Teacher Performance	0.190	0.201	0.071	2,677	0.007	Accepted

Source: SmartPLS 4.1.0.0 Output, 2024

**H 6: Competence has a positive and significant influence on teacher performance through creativity**

Comment [h19]: Same remark as above

Based on table 2, it shows that the indirect influence of competence on teacher performance through creativity has a positive and significant influence. This is shown by the test results between these two variables which show that there is an original sample value (0.141) and has a T-Statistic value of 2.117 ( $>1.987$ ) or p value ( $0.034 < 0.05$ ). Creativity significantly acts as a variable that mediates the indirect influence of competence on teacher performance. The mediation role is partial mediation. So that **Hypothesis 6 Accepted**.

#### H 7: Training has a positive and significant impact on performance Teacher Through Creativity

Based on table 19, it can be seen that training has a significant indirect effect on teacher performance through the mediation of creativity. This is shown by the test results between these two variables which show that there is an original sample value (0.190) and has a T-Statistic value of 2.677 ( $>1.987$ ) or p value ( $0.007 < 0.05$ ). This shows that creativity significantly acts as a variable that mediates the indirect effect of training on teacher performance. Thus, the presence or absence of creativity does not change the relationship between training and performance. So it can be concluded that creativity partially mediates the relationship (partial mediation) between training and performance, this is because there is no change that occurs in the influence of direct effects (direct effects) and indirect relationships (indirect effects) where previously it was known that training on performance has positive and significant influence, these changes are not found through creativity. So **Hypothesis 7 is accepted**.

**Table 19 Total Effect Hypothesis Testing Results**

Direct effects	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
Competency -> Teacher Performance	0.462	0.455	0.149	3,094	0.002
Competence -> Creativity	0.321	0.314	0.113	2,831	0.005
Creativity -> Teacher Performance	0.439	0.447	0.105	4,169	0,000
Training -> Teacher Performance	0.405	0.413	0.114	3,548	0,000
Training -> Creativity	0.433	0.447	0.102	4,236	0,000

Source: SmartPLS 4.1.0.0 Output, 2024

Based on table 19, because there is no intermediary between X1 and Z, X2 and Z and Z and Y, the total effect is the same as the direct effect. So in this case it will not be discussed further. We will explain where there is only an intermediary variable, namely the total influence of X1 on Y and the total influence of X2 on Y. because competence (X1) and training (X2) affect teacher performance (Y) through creativity (Z).

#### 1. Total effects or the influence of total competence (X1) on teacher performance (Y)

The parameter coefficient for variable X1 on Y (the sum of direct and indirect influences through Z) is 0.462, which means there is a positive total influence of with a calculated T value of 3.094  $> 1.987$  and a standard deviation of 0.149. So the p value is  $0.002 < 0.05$  so that we accept H1 or which means the total influence of X1 on Y is significantly positive.

#### 2. Total effects or total influence of training (X2) on teacher performance (Y)

The parameter coefficient for variable X2 on Y (the sum of direct and indirect influences through Z) is 0.405, which means there is a positive total influence of amounting to 0.413 with a calculated T value of 3.548 and a standard deviation of 0.114. So the p value is  $0.000 < 0.05$  so that we accept H1 or which means the total influence of X2 on Z is positive and statistically significant.

### 3. RESULTS AND DISCUSSION

#### The Influence of Competency on Teacher Performance

From the research conducted, the first hypothesis was found which connects teacher competency with teacher performance. The research results show that there is a significant relationship between these two variables. The implications of these findings are very important because they show that the higher the teacher's competence, the higher the teacher's performance. Thus, strategies for increasing teacher competency can be effective in improving their performance. The research results show that competence has a positive effect and significant impact on teacher performance. The results of this research are in line with research conducted by Basalamah et al. (2022); Andi, N., Firman, A. (2022); Lindawati et al. (2022); Fakoubun (2022); Umar et al. (2022a); Masriah (2022) who stated that Competence influences teacher performance. The same thing applies to researchers Maharani & Johanes Lo (2021); Priyasmimana et al. (2022); Wahyudi et al. (2022); Yuliaty & Liana (2022) research results show that teacher competency has a positive and significant effect on teacher performance. The results of this research strengthen the results of existing research previously carried out by Hidayatullah et al. (2020) The results of this research show that

Comment [h20]: Same remark as above

Comment [h21]: These terms must first be defined.

Comment [h22]: This section began above

competence has a positive effect on teacher performance, giving a signal that the higher the teacher's competence, the teacher's performance will also increase. Mustikawati & Qomariah (2020) teacher competency has a significant effect on teacher performance. This could be due to aspects related to teacher competency which have been able to create teacher performance. Munandar (2021) teacher competency has a significant effect on teacher performance, this is considering the important role of teachers in schools, a teacher must be professional in carrying out his duties and responsibilities as an educator, so teacher professionalism must be built through mastery . competencies that are actually applied in completing the profession. This competency is used as a motivator for teachers in carrying out their performance as educators.

### **The Influence of Competence on Creativity**

The test results show that there is a significant positive relationship between the competency variable and the creativity variable. This means that the higher the level of teacher competence, the higher the level of teacher creativity. Thus, the findings of facts and data in this research analysis increasingly support previous findings regarding the existence of a positive relationship between teacher competence and teacher creativity. This finding is supported by research by Dzikri (2023) showing that there is a positive and significant influence from increasing competence on increasing the creativity of teaching staff. This means that after increasing competency, the teaching staff will be able to apply it in their daily work as teaching staff very well and if increasing competency continues to be carried out continuously, then the increase in creativity will increase further. Researchers Serang et al. (2023) show that the influence of competence on teacher creativity is positive and significant, meaning that an increase in competence will be followed by an increase in teacher creativity, assuming that other factors that influence the size of competence are constant. In line with that, in relevant research conducted by Lindawati et al. (2022) also stated that competence has a positive and significant influence on creativity, and researchers Loren Sianturi & Melisa Hutabarat (2023) showed that there is a positive and significant influence on creativity. teacher's professional competence is significant for creativity, a teacher who has high teacher professionalism must have good teaching abilities, be able to master the class and all the tasks assigned to him. Teachers will also be more active in guiding students to repeat all the lesson material provided, so that in the end the creativity obtained will increase. A teacher Those who have low teacher professionalism will be lazy to learn about innovation in the learning process so that it will also have an effect on student creativity

### **The Effect of Training on Teacher Performance**

The research results show that Training has a positive and significant influence on teacher performance. This means that if teachers often take part in training related to teacher performance, teacher performance will be better. with the training that teachers take part in, teachers can develop their personality, become more competent . There are several relevant research results that strengthen the results of this research. Research conducted by Mustikawati & Qomariah (2020) shows that training has a significant effect on teacher performance. Agustini et al. (2023) there is a significant influence of training on performance. Totween Helniha (2020) training has a positive effect on teacher performance. Also in line with other research which also observed the positive impact of training on teacher performance, namely in research conducted by Rehman, M., Ansari, RH, & Ali (2020). In line with research by Basalamah et al. (2022) Training influences teacher performance. This means that increasing education and training will be followed by an increase in teacher performance, assuming other factors that influence the size of training are considered constant. Likewise, researchers Karyono et al. (2020), training has a significant effect on employee performance, stating that high levels of training improve the performance of customer employees.

### **The Effect of Training on Creativity**

The research results show that training has a positive and significant effect on creativity. Rahayu & Apriyansyah (2022) Training has a significant effect on creativity. creativity, said that teacher creativity had increased after the training was implemented, showing quite significant changes. Previous research conducted by Nasiah (2022) stated that training had a positive effect on teacher creativity. It is important for teachers to carry out training in schools because it has a strong influence on student learning which will improve the quality of learning. Teachers who are able to apply active, innovative, environmental, creative, effective and interesting learning. Teacher creativity in teaching needs to be increased because the learning process is a benchmark that can determine whether the learning process is successful or not. Also in research conducted by Dzikri (2023) there is a positive and significant influence from training on increasing the creativity of teaching staff. This means that if training is carried out continuously, the creativity of teaching staff will increase. In line with researchers Sari & Susilo (2020) Job training has a positive effect on creativity. Training not only increases knowledge, but improves work skills and reduces employee error rates. Apart from this, more skilled employees will result in increased creativity at work. This means that good job training increases creative abilities, with teachers who have a high level of creativity, this means that teachers will continue to make updates to find the best alternative methods for completing work and overcoming problems that occur when completing assignments.

### **The Influence of Creativity on Teacher Performance**

The research results show that creativity has a positive and significant effect on teacher performance, meaning that teachers who are able to think creatively can design interesting learning methods, bring innovation to the classroom,

**Comment [h23]:** These statements need to be reformulated.

and motivate students. The higher the level of teacher creativity, the better their performance can be. Teachers need to be encouraged to look for new ways of teaching, developing materials, and interacting with students. This is supported by research conducted by Serang et al. (2023); Lindawati et al. (2022) teacher creativity has a positive and significant effect on teacher performance.

#### **Influence of Competency on Teacher Performance Through Creativity**

The research results show that Competence has a positive and significant effect on teacher performance through creativity, meaning that teacher creativity mediates the relationship between teacher competence and performance. Teacher competency refers to the knowledge, skills and abilities possessed by a teacher in carrying out teaching duties. Meanwhile, creativity is the ability to produce new ideas, innovative solutions, and different approaches to solving problems. Teachers who have higher competence tend to show higher levels of creativity in designing learning, managing classes, and responding to student needs more effectively. Increasing teacher competency supported by strengthened creativity can pave the way to improve the quality of teaching, learning, and ultimately, influence teacher performance as a whole. The results of this research strengthen the results of previous research conducted by Yuliati & Liana (2022) proving that competency has a positive and significant influence on teacher performance. Other research conducted by Dzikri (2023); Serang et al. (2023) stated that competency has a positive and significant effect on educator creativity. The results of this research are also in line with researchers Serang et al. (2023) that teacher creativity has a positive and significant effect on teacher performance.

Therefore, an approach to teacher professional development, with a focus on competence and creativity, is very important to achieve optimal learning outcomes. It can be concluded that teacher competence that increases creativity will contribute positively to improving teacher performance.

#### **The Effect of Training on Teacher Performance Through Creativity**

The research results show that training has a positive and significant effect on Teacher Performance through Creativity. When teachers have developed creativity, teachers can find innovative approaches to delivering learning material and overcoming challenges that arise in the classroom. Thus, good training not only improves their technical skills, but also enriches the way they inspire and motivate students. This will ultimately lead to significant improvements in the quality of teacher performance and student learning outcomes. This is in accordance with the opinion expressed by Dzikri (2023) proves that training has a positive and significant effect on increasing creativity. Apart from that, it is certain that teacher creativity contributes to teacher performance, Serang et al. (2023). In line with Lindawati et al. (2022) that teacher creativity has a positive and significant influence on teacher performance. Likewise with research by Basalamah et al. (2022); Rehman, M., Ansari, RH, & Ali (2020). proves that training has a significant effect on teacher performance. The results of this research are also in line with the theory that is the reference in this research, namely Hamzah (2012), the factors that influence creativity are external factors such as (educational background, training, experience, welfare), which states that the results with the theory put forward by Yamin, Martinis. (2016) who say that performance is greatly influenced by characteristics (personal/individual) including elements of knowledge, skills, abilities, self-confidence, motivation.

Providing training is intended so that teachers can master the work they are responsible for so that efficiency and effectiveness can be achieved in carrying out their duties. Through this training, schools can also have teachers who are competent to compete, especially in global competition and the increasingly diverse demands of society as a manifestation of the function of developing teaching staff, the human resources owned by the organization must be given training which is a continuous process because of technological developments, economic and non-economic development in a country. With training, teachers have the opportunity to develop new ideas and creative approaches to teaching, which ultimately affects the quality of the teacher's teaching. This change in teaching methods also has the potential to improve overall student achievement.

#### **4. CONCLUSION**

Competence has a positive and significant influence on teacher performance. Competence has a positive and significant influence on creativity. Competent teachers are more creative in teaching. Creativity has a positive and significant influence on teacher performance. Training has a positive and significant influence on teacher performance. Training has a positive and significant influence on creativity. Creativity acts as a significant mediating variable in the indirect influence of training on teacher performance.

Creativity acts as a significant mediating variable in the indirect influence of competence on teacher performance. Increasing competency and training for teachers is very important to increase teacher creativity and performance. Teacher professional development with a focus on increasing competence and creativity will produce better teaching quality and optimal student learning outcomes.

#### **SUGGESTIONS**

A. for educational institutions Improving teacher performance can be done through periodic competency training that covers pedagogical, professional, social, and personal aspects. Periodic performance evaluation is important to provide constructive feedback. Mentoring programs by senior teachers are also needed. Teacher creativity can be improved

through program innovation, provision of supportive facilities, and learning communities. In addition, awards for creativity, collaborative projects, and innovative teaching methods can motivate teachers. Focused and practical training should be held periodically with feedback and follow-up to support continuous professional development. Integration of creativity in every training program is very important to mediate the relationship between teacher competence and performance.

B. For further research, the limitations of this study only include one mediator variable and a limited number of participants. For further research, it is recommended to use the total effect again and see the significant standard based on the loading factor. Explain the model by adding other variables or two mediators. Include other variables such as emotional intelligence and compensation. Expand the number of samples to cover a wider and more representative scope. Thus, research can make a greater contribution to improving teacher performance.

#### **CONSENT (WHERE EVER APPLICABLE)**

No consent was required for this study.

#### **ETHICAL APPROVAL (WHERE EVER APPLICABLE)**

The authors declare that all procedures involving human participants, in this case teachers, have been reviewed and approved by the appropriate ethics committee. This research has been carried out in accordance with the ethical standards laid down by the 1964 Helsinki Declaration and its relevant amendments.

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**Comment [h24]:** Even though the author uses recent references, there is a strong need to increase the percentage of international references, as teacher competency, training, and creativity are of worldwide interest and interpreted differently across various country contexts.

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#### **DEFINITIONS, ACRONYMS, ABBREVIATIONS**

Here is the Definitions section. This is an optional section.

**Term:** Definition for the term

UNDER PEER REVIEW

