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## The Contribution of Principal's Academic Supervision and Pedagogical Competence to Teacher Performance

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### Abstract

This research aims to analyze (1) the performance of *SMPN* [state junior high school] teachers, (2) the principal's academic supervision, and (3) pedagogical competence. This research uses a correlational quantitative method with an associative type. The population is 165 teachers at *SMPN*. Meanwhile, the samples were taken using a proportional stratified random sampling technique. The research instrument used a Likert scale model questionnaire. In addition, the test results show a valid. Next, the research data was analysed using the mean for data description, and test requirements, which are normality, homogeneity, independence, and linearity. The teacher performance results were 89.51%, academic supervision 85.00%, and pedagogical competence 79.66%. The results showed that the contribution of academic supervision to teacher performance was 13.10%. The pedagogical competence contribution to teacher performance was 16.60%, and the academic supervision and pedagogical competence contribution to teacher performance was 37.60%. The implications of the findings are also discussed.

### Keywords

Academic supervision,  
pedagogical competence,  
teacher performance

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## Introduction

Human resources are crucial to achieving the goals of an organization because they are the key to the success of the organization. Teachers play a paramount role in improving the quality of human resources, especially students in schools. Student success depends on the teacher's high level of performance during the learning process. The extent to which a teacher can teach and guide students to achieve the required competencies is a way to measure their performance. Effective teachers encourage and motivate their students to achieve their full potential along with teaching them knowledge and skills. How effectively teachers teach and interact with students has a significant influence on how well students understand concepts and grow as individuals.

A teacher is said to have good performance if they can do everything they have. Thus, teachers have an essential role in improving the quality of education, whether the learning process succeeded or not, whether educational goals are achieved or not, and how the facilities and infrastructure, media, materials, and learning materials are organized. More specifically, an effective teacher can organize thoughtful, captivating lessons that complement learning objectives; use a range of pedagogical strategies to engage different learning styles; promote a culture of positivity and support in the classroom; make good use of technology and media to supplement instruction; routinely assess student progress to give prompt feedback and assistance; and reflect on their methods to keep getting better. Supardi (2013) stated that teacher performance is a teacher's ability to carry out learning tasks at school and be responsible for the students under his guidance by improving students' learning achievements. Therefore, teacher performance is a condition that shows a teacher's ability to carry out his duties at the school and describes the teacher's actions in or during learning activities. Teacher performance is the ability to fulfil varied learning requirements, professional accountability, subject matter competence, instructional design, classroom management, assessment abilities, and classroom management. The foundation of a quality teaching performance is established by extensive preparation courses that give new teachers a theoretical and practical foundation. It must continue with structured supervision and mentoring support during the early years of employment, in addition to educational environments that encourage teamwork, independent experimentation with new skills, constructive criticism, and ongoing development on both an institutional and individual basis.

Teacher performance can be influenced by several factors, both internal and external. Rachmawati (2013) explained the existence of teachers in carrying out their duties and obligations cannot be separated from the influence of internal and external factors that influence changes in teacher performance. Several factors that influence teacher performance include internal factors: personality and dedication, professional development, teaching ability, interrelationships and communication, relations with the community, discipline, welfare, and work climate. Meanwhile, external factors that can influence teacher performance are supervision carried out by the school principal.

More specifically, a teacher's effort, creativity, and relational teaching methods are significantly influenced by their personality and intrinsic motivation to teach students. It is

essential to pursue professional development through continuous training, conferences, mentoring programs, and learning communities to keep up to date with curriculum changes, technological advancements, cultural sensitivity, and educational legislation. Teaching ability includes material understanding, classroom management skills, pedagogical expertise, and the capacity to motivate pupils. Building relationships with peers enables educators to work together, share constructive criticism, and discuss forward-thinking concepts. Conversely, speaking with parents and the school administration promotes openness and assistance.

Furthermore, discipline in carrying out responsibilities and active community involvement at schools indicate professional accountability. Morale is improved by reasonable wages, advantages, work-life balance, job stability, and a supportive work environment. In addition, micromanagement and excessive assessment are two ways that administering supervision techniques can either demotivate teachers or strengthen their autonomy. Overall, instructors can maintain their passion and flourish in directing students because of their optimism, determination, nurturing leadership, peer collaboration, and growth possibilities. Furthermore, [Dybowski et al. \(2017\)](#), apart from individual, organizational, and psychological, other factors that influence teacher performance are situational factors, such as the following:

- Individual variables include attitudes, characteristics, physical characteristics, abilities, interests and motivation, experience, age, gender, education, and other individual factors.
- Situational variables:
  - Physical and work factors include work methods, condition, and design of work equipment, spatial arrangement, and physical environment (lighting, temperature, and ventilation (work climate).
  - Social and organizational factors include organizational regulations, the nature of the organization, the type of training and supervision, the wage system, and the social environment.

It is by the results of research conducted by several studies. [Ardana et al. \(2020\)](#) showed that academic supervision contributes to the performance of SMPN teachers in the *Marga* sub-district by 42.9% and effective contribution (SE) by 20.8%. [Novebri \(2020\)](#) showed that academic supervision contributes to teacher performance by 44%. Furthermore, [Sukayana et al. \(2019\)](#) showed that pedagogical competence contributes to teacher performance, and there is a significant contribution of pedagogical competence to teacher performance at *Kertha Wisata Denpasar* Vocational School, amounting to 22.34%. [Novebri \(2020\)](#) showed that pedagogical competence contributes to teacher performance by 12.1%. [Zuldesiah et al. \(2021\)](#) claimed that supervision is to guarantee high-quality instruction and ensure quality learning. One form of supervision related to the learning process is academic supervision. [Diat and Sudiyo \(2011\)](#) stated the core competency of academic supervision is to guide teachers in improving the quality of the learning process. Therefore, the target of academic supervision is the teacher in the learning process, which consists of the material in the learning process, the use of media and information technology in learning, assessing the learning process and results, and classroom action research.

More comprehensively, school administrators supervise academic supervision, which is methodologically observing, assessing, and counselling teachers to improve student learning.

Supervisors observe classes to assess student involvement, discussion quality, instructional methods, and curricular alignment. Formative feedback is given on areas of strength, development potential, and targeted improvement tactics. Supervisors can also offer guidance on action research projects in the classroom that allow instructors to investigate pertinent educational issues. This collaborative reflective cycle aims to increase the quality of education so that learning outcomes and teaching can advance continually throughout the system or school. Moreover, another factor that affects how well teachers succeed is proficiency in executing instructional tasks. Salmawati et al. (2017) stated that teacher performance will improve if they are attentive to and enthusiastic about their students, possess pedagogical competency, and apply it well in managing students. In addition, according to Hadiyanto (2016), teacher support for students is a form of good relationship between teachers and students. Furthermore, Rifma (2013) stated regarding pedagogical competence, teachers should carry out good learning planning, implement learning, assess learning outcomes, and appropriate follow-up to realize effective and efficient learning.

Performance is crucial in helping the achievement of educational goals because performance is the ability to carry out the duties and responsibilities that are carried out (Indajang et al., 2021). More precisely, teacher performance includes competencies in various areas, including subject matter expertise, professional accountability, curriculum design, pedagogical approaches, classroom management, assessment strategies, and student supervision. A proficient teacher possesses the ability to grasp the subject matter they instruct and convert it into clear, well-considered lessons that stimulate students' critical thinking. They use interactive teaching techniques to accommodate different learning preferences and provide a supportive learning environment.

Quality teacher performance is one of the keys to achieving national education goals (Bailey et al., 2009). Teacher performance is necessary because it is part of the overall educational process. The statement goes according to the opinion of previous studies, which stated that teacher performance in the teaching-learning process becomes one of the most obligatory parts in supporting the creation of an effective educational process, especially in the development of learning discipline and learning quality (Yang et al., 2021).

Thus, academic supervision and pedagogical competence are expected to improve teacher performance to create education that is in line with national education goals. There is usually a contribution from the principal's academic supervision and pedagogical competence to improve teacher performance, so of course, it will have an effect on teacher performance. To achieve and optimize teacher performance, it is necessary to discuss the factors that contribute to teacher performance or what causes teacher performance to not work as expected. To help teachers improve their performance, one thing that needs to be done is to carry out academic supervision of school principals and improve teachers' pedagogical competence.

Based on the research results above, supported by researchers' findings regarding low teacher performance, the following phenomena were obtained: 1) there were still teachers who did not know the student character. It can be seen from teachers who have not provided equal opportunities for students to actively participate in learning activities, 2) there are still teachers who have not mastered learning theory and the principles of educational learning, 3) there are

still teachers who are not optimal in developing the curriculum, such as making learning preparations before teaching, lesson materials only follow the order of material in the students' textbooks, 4) teachers still do not enough pay attention to educational learning activities, 5) It is still found that teachers do not have good communication with students, 6) teachers have not prepared assessments and evaluations optimally, 7) There are still teachers who do not show mature personalities and are good role models, 8) some teachers have not been able to understand and develop students' potential, 9) teachers rarely use tools and media in learning, 10) teachers in implementing learning also do not use learning strategies optimally.

Several of these phenomena prove that SMPN teachers in Subrayon 2 Agam Regency continue to perform poorly in their duties. It has been intended that teacher performance in learning activities can be improved through the academic supervision program by the school principal and teacher pedagogical competence. If the implementation of the principal's academic supervision and pedagogical competence goes well, the teacher's performance will increase, thus improving the quality of learning and education. Therefore, it is suspected that there is a link between academic supervision, pedagogical competence, and teacher performance. For instance, Kartini et al. (2020) aim to examine the influence of the principal's leadership, academic supervision, and professional competence on teachers' performance. The findings of this research indicated that academic supervision has a significant effect on pedagogical competence and teacher performance.

## Methodology

### *Research design, site, and participants*

It is quantitative research with the use of a correlational method. The researcher used this to know the contribution of the principal academic supervision and teacher pedagogy competence towards the performance of SMPN teachers in Subrayon 2 Regency Agam. The population in this research are all ASN teachers who teach at SMPN Subrayon 2 Regency Agam. Around 165 people from 13 State Junior High Schools were obtained for this research. Meanwhile, the research sample was determined using proportional stratified random sampling techniques.

The population characteristics considered in this sampling consist of (1) group strata, namely  $\leq$  III<sub>d</sub> and  $>$  IV<sub>a</sub>, and 2) working period strata  $<$ 15 years and  $>$ 15 years sampling from these two data was taken because the length of service affects performance since a long period of service can influence on teacher performance. Different groups also provide different knowledge and skills to teacher performance. The proportion of each stratum is group III<sub>d</sub> working period  $<$  15 years = 54,  $\geq$  15 years = 27 and group  $\geq$  IV<sub>a</sub> working period  $<$  15 years = 0,  $\geq$  15 years = 93 131. If there are fewer than 100 subjects, it is preferable to include them all because the sample size has been established. If the subject is large or more than 100 people, 10-15% or 20-25% or more can be taken (Arikunto, 2010). Based on the researcher's opinion, the sample size was 30% of the research population, so the total research sample was 78 teachers.

### *Data collection and analysis*

The instrument used in this research was a questionnaire prepared using a Likert scale model with five alternative answers, namely Always (A), Often (O), Sometimes (S), Rarely (R), and Never (N). Before using a questionnaire in this research, trial testing took place to determine the validity and reliability of the instrument. The trial test involved administering the questionnaire to a sample of respondents and analysing the data to determine the validity and reliability of the instrument. The trial test results showed that the research questionnaire was valid and reliable. A valid and reliable questionnaire is used as an instrument to collect data in field research.

Data collection was carried out directly by handing questionnaires to respondents. The researcher ensured that the questionnaires were distributed evenly among the respondents to avoid any bias in the data. Research data were analysed using simple regression and multiple regression methods with the help of SPSS Version 27.0 software. Data analysis includes 1) data description, 2) analysis prerequisite tests: normality test, homogeneity test, independence test, and linearity test, 3) hypothesis testing by determining the level of contribution through correlation analysis, significance level, coefficient of determination analysis, regression, relative contribution, and effective contribution.

### **Findings and Results**

#### *Normality test*

Based on research data processing, normality test results were carried out using the SPSS application, informing that the Kolmogorov Smirnov test results obtained a significance value for teacher performance of  $0.200 \geq 0.05$ . The normality test is a crucial step in statistical analysis since many statistical techniques—such as correlation, regression, t-tests, and analysis of variance—make assumptions about normalcy when analysing data. Comparing the distribution of the sample data with a known standard normal distribution is done using the non-parametric Kolmogorov-Smirnov test. The significance value of the principal's academic supervision is  $0.200 \geq 0.05$ . In addition, the significance value of pedagogical competence is  $0.183 \geq 0.05$ . The testing criteria for the normality test via the Kolmogorov-Smirnov test is the sig value. Kolmogorov-Smirnov test  $\geq 0.05$ . Furthermore, the data is said to be normal, and if sig. Kolmogorov-Smirnov test  $< 0.05$  means the data is not normal. Based on this, the significance value exceeds alpha 5% (0.05), namely 0.200, which means the data is normally distributed, so it meets the normality test requirements.

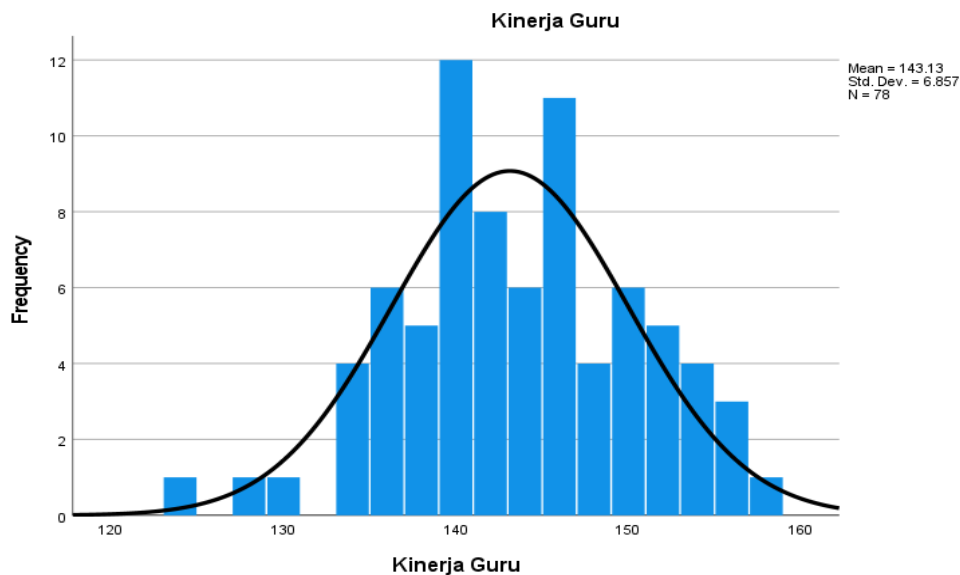
**Table 1.** *Normality test results*

One-Sample Kolmogorov-Smirnov Test				
		Supervision Academic	Competence Pedagogy	Teacher Performance
N		78	78	78
Normal Parameters <sup> a, b</sup>	Mean	140.46	139.40	143.13
	Std. Deviation	7,401	12,901	6,857
Most Extreme Differences	Absolute	,090	,088	,060
	Positive	,090	,088	,060
	Negative	-.053	-.069	-.060
Statistical Tests		,090	,088	,060
Asymp. Sig. (2-tailed) <sup> c</sup>		,183	,200 <sup> e</sup>	,200 <sup> e</sup>
Monte Carlo Sig. (2-tailed) <sup> d</sup>	Sig.	.117	.133	,681
	99% Confidence Interval	Lower Bound	.108	.125
		Upper Bound	.125	,142

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. Lilliefors' method based on 10000 Monte Carlo samples with a starting seed 2000000.
- e. It is a lower bound of the true significance.

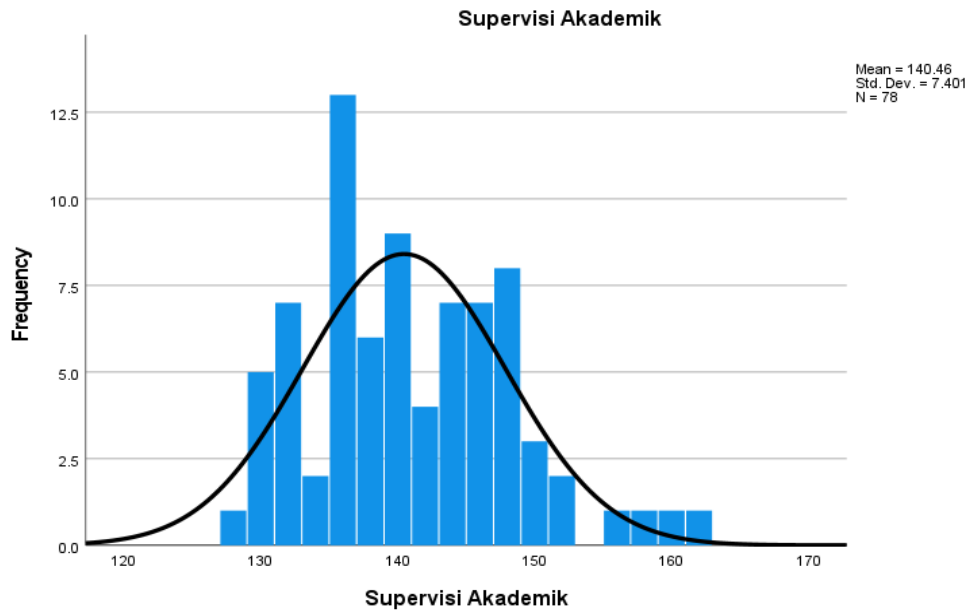
Data normality results can also be seen in the following image.

**Figure 1.** *Teacher performance*



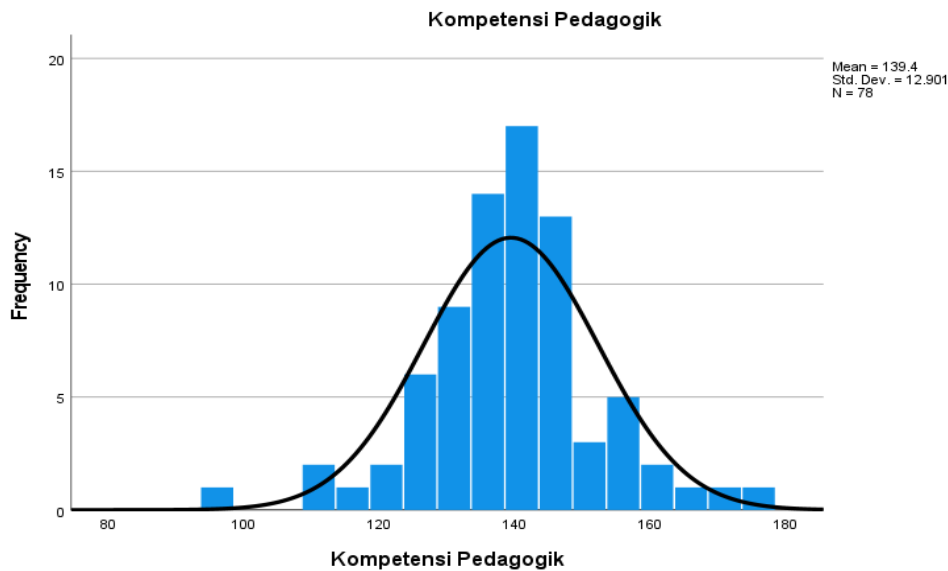
Note: *Kinerja guru*: Teacher performance

Figure 2. *Principal academic supervision*



Note: *Supervisi akademi*: Principal academic supervision

Figure 3. *Teacher pedagogical competencies*



Note: *Kompetensi pedagogik*: Teacher pedagogical competencies



### *Homogeneity*

The homogeneity test uses the Levene test with the SPSS version 27.0 program by looking at the significance level value  $> 0.05$ , meaning the research data comes from the same variance (homogeneous), and if the significance level value  $< 0.05$  means the research data comes from unequal variances (not homogeneous) as attached in the following table.

**Table 2.** *Summary of homogeneity test results*

Variable	Levene Statistics	Df1	Df2	Sig	Information
Implementation of the principal's academic supervision and teacher pedagogical competence	1..010	17	52	0.464	Homogeneous
	4,378	18	52	0.070	Homogeneous

### *Independent variable independence test ( $x_1$ ) with ( $x_2$ )*

Another test requirement that needs to be met for correlation and regression analysis is the independence test between independent variables, namely, to ensure that there is no confounding (contamination) in the contribution of each independent variable to the dependent variable. For correlation with the SPSS assistance program (Version 27.0), which is the basis for decision making 1) if the Sig. (2-tailed)  $< 0.05$ , then there is a significant difference between the implementation of the principal's academic supervision and pedagogical competence, while 2) if the Sig value (2-tailed) is  $> 0.05$ , then there is no significant difference between the implementation of supervision principal's academic and pedagogical competence. A summary of the results of the independent variable correlation analysis is in the following table.

**Table 3.** *Summary of independence analysis between independent variables*

Equal Variances Assumed		
Variable	Sig	Sig (2-tailed)
X <sub>1</sub> with X <sub>2</sub>	0.002	0.028

The analysis results show that Sig. (2-tailed) is less than alpha 0.05. It means that the principal's academic supervision implementation variable, and the teacher's pedagogical competence are not significantly correlated with the teacher's performance variable. In other words, each variable is independent of the other.

***Test linearity***

The final requirement is testing the regression line of the independent variable with the dependent variable. This regression line test was carried out to see whether the data on the implementation variables of the principal's academic supervision and pedagogical competence tended to form a linear line on the teacher performance variable. The decision about whether the regression line is linear or not is tested by using the F test with a significance level of 0.05. If the F significance value is more than alpha 0.05, it means the regression line is linear, but if the F significance value is less than alpha 0.05 it means the regression line is not linear. The results of the linearity test between  $X_1$  and  $X_2$  against  $Y$  are in Table 4 below.

**Table 4.** *Summary of linearity test analysis results  $x_1$  against  $y$*

Source	Sum of Squares	Df	RJK	F	p
Deviation In Group	1208,005	24	50,334	1,351	0.181
Total	1937,545	52	37,260		

Table 4 shows the value of  $F = 1.351$  with  $p = 0.181$  ( $p > 0.05$ ). It means that the regression equation is linear.

***Hypothesis testing***

The first hypothesis tested in this research is that the principal's academic supervision implementation contributes to teacher performance. A simple correlational analysis has been done to determine the effect of the principal's application of academic supervision on teacher performance. According to the calculation results, the correlation coefficient for the implementation of the principal's academic supervision with teacher performance is 0.362. A summary of the analysis results is in Table 5.

**Table 5.** *Summary of correlation analysis results between principal academic supervision implementation variables ( $x_1$ ) and teacher performance ( $y$ )*

Correlation	Correlation Coefficient (r)	Coefficient of Determination ( $r^2$ )	Sig.
$r_{x_1 y}$	0.362	0.131	0.001

The calculation results in Table 5 show that the correlation coefficient ( $r_{x_1 y}$ ) = 0.362 with  $p = 0.000 < 0.05$ . The research indicated that there is a very significant relationship between the implementation of the principal's academic supervision and teacher performance. The coefficient of determination ( $r^2$ ) is 0.131. It means that the contribution of the principal's academic supervision to teacher performance is 13.1%, which means that the principal's

implementation of academic supervision (X<sub>1</sub>) contributes 13.10% to teacher performance. while the rest is influenced by other variables.

To determine the form of a predictive relationship or not between the implementation of the principal's academic supervision and teacher performance, a simple regression analysis occurred. With the analysis results, the regression equation  $Y = 190.276 + 0.336 X_1$ .

**Table 6.** *Summary of regression coefficient test results for the implementation of principal academic supervision (x<sub>1</sub>) on teacher performance (y)*

Source	Coefficient	Q	Sig.
Constant	190,276	13,656	0,000
Principal academic supervision	0.336	0.362	0,000

The second hypothesis tested in this research is that pedagogical competence (X<sub>2</sub>) contributes to teacher performance (Y). In hypothesis testing, correlation analysis is first carried out, and then simple regression analysis is carried out. The results of the correlation analysis of pedagogical competency scores with teacher performance scores are in Table 7.

**Table 7.** *Summary of correlation analysis results of teacher pedagogical competency variable scores (x<sub>2</sub>) with teacher performance variables (y)*

Correlation	Correlation Coefficient (r)	Coefficient of Determination (r <sub>2</sub> )	Sig.
Ryx <sub>2</sub>	0.407	0.166	0,000

The calculation results in Table 7 show that the correlation coefficient between the pedagogical competence variable and the teacher performance variable is of 0.407 with  $p = 0.000 < \alpha = 0.05$ , and the coefficient of determination is 0.166. It means that the contribution of teacher pedagogical competence to teacher performance is 16%. Meanwhile, the rest is influenced by other factors and other variables. From the regression analysis results, the regression equation  $\hat{Y} = 131,010 + 2,400X_2$ .

**Table 8.** *Summary of regression coefficient test results for teacher pedagogical competency (x<sub>2</sub>) on teacher performance (y)*

Source	Coefficient	Q	Sig.
Constant	112,942	14,489	0,000
Principal academic supervision	0.217	3,889	0,000

The third hypothesis tested in this research is that the implementation of the principal's academic supervision (X<sub>1</sub>) and pedagogical competence (X<sub>2</sub>) contribute to teacher performance (Y). The hypothesis test is done with an analysis correlation double. The calculation results are in Table 9 below.

**Table 9.** *Summary of correlation analysis results between principal academic supervision implementation variables ( $x_1$ ) and pedagogical competence ( $x_2$ ) on teacher performance ( $y$ )*

Correlation	Correlation Coefficient (r)	Coefficient of Determination (r)	Sig.
Ryx <sub>12</sub>	0.613	0.376	0,000

The calculation results in Table 9 show the correlation coefficient ( $r_{y1}$ ) = 0.613 with  $p=0.000 < \alpha 0.05$ , and the coefficient of determination is 0.376. It means the contribution of the principal's academic supervision and pedagogical competence to the teacher's pedagogical competence is 37.6%. It means the independent variable contributes to the dependent variable of 43,9% while the rest is influenced by other variables. To determine the form of the predictive relationship between the implementation of the principal's academic supervision and the teacher's pedagogical competence, multiple regression analysis was carried out to obtain the regression equation  $Y= 166.638+ -0.434 X_1 + 0.269 X_2$ .

**Table 10.** *Summary of results for the regression coefficient test for the implementation of principal academic supervision ( $x_1$ ) and teacher pedagogical competence ( $x_2$ ) on teacher performance ( $y$ )*

Source	Coefficient	t	Sig
Constant	166,638	13,161	0,000
Implementation of Principal Academic Supervision	0.434	5,024	0,000
Pedagogical Competence	0.269	0.506	0,000

Table 10 shows that the t regression coefficient for the implementation of school principal academic supervision is 5.024, and the significance level is 0.000, while the t regression coefficient for pedagogical competence is 0.506, and the significance level is 0.000. It means that the regression coefficients of 0.434 and 0.269 are significant and can be used to predict teacher performance.

## Discussions

### *Contribution of the principal's implementation of academic supervision on teacher performance*

According to the research results, the variable implementing the principal's academic supervision contributed significantly to teacher performance by 13.1%. The results suggest that the principal's academic supervision can be used as a tool to predict teacher performance. In other words, teacher performance can be determined by the principal's academic supervision by 13.1%. The teacher's performance improves with the principal's execution of academic monitoring and is highly influenced by principal supervision (Magdalena et al. 2020). The ability of the principal to oversee the accomplishment of the school's vision and mission,

as well as the usage of all school resources, is paramount to the school's growth. The principal has a significant effect on teachers' dedication and output.

Based on the descriptive analysis results, the principal's academic supervision is in the "good" category, with an average score of 85.05% of the ideal score. In addition, from each research indicator, the highest score is the first indicator, namely planning supervision, which is in the "very good" category (88.36% of the ideal score). Meanwhile, the lowest level of response achievement is the third indicator, namely follow-up supervision, which is in the sufficient category (79.27% of the ideal score). From the three indicators of the implementation of the school principal's academic supervision, they were still in the "good" category.

It indicates that the principal of SMPN Subrayon 2 Agam Regency has implemented academic supervision effectively. By being in the "good" category, a school principal needs to improve the implementation of academic supervision, so it becomes a "very good" category. It implies that teacher performance will benefit from the proper execution of the supervision plan by the school principal. Several research highlight the importance of effective academic supervision by the school principal in improving teacher performance. According to Magdalena et al. (2020), teacher performance is influenced by principal monitoring. Additionally, Ummah (2020) revealed that academic supervision and principal leadership have a positive effect on teacher performance.

#### ***Contribution of pedagogical competency to teacher performance***

The results found that teacher pedagogical competence contributed significantly to teacher performance (Y) by 16.6% at SMPN Subrayon 2 Agam Regency. Accordingly, it is possible to predict teacher performance using the pedagogical competency of teachers. In other words, teacher performance can be determined by the teacher's pedagogical competence by 16.6%. The better the teacher's pedagogical competence, the better the teacher's performance. It is supported by several research, such as Kartini et al. (2020) found that principal leadership, academic supervision, and professional competence significantly influence teacher performance. Ummah (2020) revealed that academic supervision and principal leadership have a positive effect on teacher performance.

Descriptive analysis shows that the pedagogical competence of State Junior High School teachers in Subrayon 2 Agam Regency is in the "good" category, with an average score of 79.66% of the ideal score. Furthermore, from each indicator, it appears that the indicator with the highest score of achievement is the second indicator, which is mastering learning theory and educational learning principles, which is in the "very good" category (91.40% of the ideal score). The lowest score achieved is the fourth indicator, which is utilizing information technology, in the "sufficient" category (68.05% of the ideal score).

The results of this descriptive analysis show that the pedagogical competence of SMPN teachers in Subrayon 2, Agam Regency needs to be improved in a better direction so that the category becomes very good. It is because, according to research findings, which indicate that teacher pedagogical competence plays a part in raising teacher performance, raising teacher pedagogical competence can also result in improved teacher performance.

Thus, it shows that the teacher's pedagogical competence also determines whether the teacher's performance is good or not so it means that improving teacher performance can be done by increasing the teacher's pedagogical competence. Pedagogical competence is a crucial factor in managing learning in the classroom and is directly related to teacher performance and student learning outcomes. Therefore, it is necessary to provide opportunities for teachers to improve their pedagogical competence through academic supervision, professional development programs, and other relevant training programs.

### ***Contribution of the implementation of principal academic supervision and teacher pedagogical competence to teacher performance***

The data analysis research results show that the principal's supervision implementation variable and the teacher's pedagogical competency variable contribute to the teacher's performance variable. The contribution of the two variables to the implementation of teacher performance was 37.6%, and the remaining 62.4% was the contribution of other variables that influenced the performance of SMPN teachers in Subrayon 2, Agam Regency, which has been investigated in this research. In other words, teacher performance can be determined by the implementation of academic supervision by the school principal and pedagogical competence, which is 37.6%. The better the implementation of supervision by the school principal and the higher the teacher's pedagogical competence, the better the teacher's performance. A principal's ability to efficiently handle academic matters can enhance teacher performance, and a more qualified teacher can better oversee instruction in the classroom. For this reason, it is critical to give teachers the chance to advance their pedagogical proficiency through professional development courses, academic supervision, and other appropriate instruction activities.

Furthermore, data analysis shows that teacher performance is significantly influenced by the principal's academic supervision and teacher pedagogical competence, both individually and jointly. The principal's academic supervision and pedagogical competence are two paramount factors because they can influence a teacher's performance. The implementation of supervision provides opportunities for teachers to improve performance so that teachers are more advanced in increasing their ability to manage learning. In improving teacher performance, teachers need to have high teacher pedagogical competence so that students can actualize their potential and achieve. The higher a teacher's pedagogical competence, the greater the teacher's performance will be.

### **Conclusion**

The research that has been conducted and the results of data analysis on the contribution of school principals' academic supervision and pedagogical competence to the performance of SMPN teachers in Subrayon 2, Agam Regency, have a significant contribution to the performance of SMPN teachers in Subrayon 2, Agam Regency. It means that the principal's academic supervision and teacher pedagogical competence are factors that need to be considered in improving the performance of SMPN teachers in Subrayon 2, Agam Regency.

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This research implies that school principals and education agencies need to improve principals' academic supervision and teachers' pedagogical competence to improve teacher performance.

### Declaration of Conflicting Interests

The authors declared no potential conflicts of interest.

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