The Impact of Managerial and Principal Academic Supervision on Teacher Performance

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Article Information	Abstract
Keywords: Managerial Supervision, Academic Supervision, Supervisor, Principal, Teacher Performance.	Supervision is carried out in the context of mentoring, directing, and coaching toward improving teacher performance more optimally. This study aims to determine how managerial and principal academic supervision affect teacher performance in private junior high schools in the Tigaraksa District of the Tangerang Regency. This study uses correlational and regression analysis, which are both types of quantitative research methods. The population comprises 41 teachers, three principals, and one supervisor, for a total of 45 respondents. This study takes a sample of the whole population, which is the whole population. With a 97% contribution, the results showed that managerial supervision greatly improved teacher performance. The study's development shows that the principal's academic control has a significant effect on improving teacher performance, with a contribution of 88%, and that the supervisor's managerial supervision and the principal's visionary leadership have a substantial impact on improving teacher performance, with a contribution of 91%.
Kata kunci: *Supervisi Manajerial,* *Supervisi Akademik,* *Supervisor, Kepala Sekolah,* *Kinerja Guru..*	**Abstrak**. *Supervisi dilakukan dalam rangka pendampingan, pengarahan, dan pembinaan terhadap peningkatan kinerja guru secara lebih optimal. Tujuan dari penelitian ini adalah untuk mengetahui bagaimana pengaruh supervisi manajerial dan supervisi akademik kepala sekolah terhadap peningkatan kinerja guru di SMP Swasta Kecamatan Tigaraksa Kabupaten Tangerang. Penelitian ini menggunakan metode penelitian kuantitatif dengan teknik analisis korelasional dan regresi. Populasinya adalah 41 guru, 3 kepala sekolah, dan 1 orang pengawas. Seluruh populasi dijadikan sampel dalam penelitian ini. Total keseluruhan sampel adalah 45 orang. Hasil penelitian menunjukkan terdapat pengaruh yang signifikan dari supervisi manajerial kepala sekolah terhadap peningkatan kinerja guru dengan kontribusi sebesar 97 %; Ada pengaruh yang signifikan dari supervisi akademik kepala sekolah terhadap peningkatan kinerja guru dengan kontribusi sebesar 88%; dan ada pengaruh supervisi manajerial dan supervisi akademik kepala sekolah terhadap peningkatan kinerja guru dengan kontribusi sebesar 91 %.*

INTRODUCTION

The success or failure of education in schools primarily depends on teachers, principals, and supervisors in a framework of regional autonomy and decentralisation of education because these three figures are the keys that determine and drive numerous components and other characteristics of the school (Brooks & Ezzani, 2022; Ezzani, Brooks, Yang, & Bloom, 2021). Educator leaders, such as principals and supervisors, need to improve a wide range of talents and skills within their staff if their work is to benefit them personally (Amelia, Aprilianto, Supriatna, Rusydi, & Zahari, 2022). The primary purpose of supervision is to enhance the quality of instruction and effectiveness, which is best achieved through a systematic and dialogical approach that includes mentoring, guiding, and coaching (Fischer, Tian, Lee, & Hughes, 2021; Penning de Vries, Knies, & Leisink, 2022). Law Number 14 of 2005 explained that in the formal education system, teachers have jobs as professionals in early childhood education, primary education, and secondary education. They are hired according to laws (Minister of National Education Regulation Number 13 2005, 2005). Academic supervision needs to be carefully planned, integrated, directed and systematic. Planning is often understood as maintaining and determining the various objectives, strategies, methods, budgets, and evaluations used. (Donni Juni Priansa, 2014) define planning as a process or series of activities that are interrelated with each other in choosing one alternative from the various alternatives available to achieve the desired goal. This is in line with (Noorfaidah, Kuswarno, Mardiana, & Rostini, 2022) state that supervision is crucial as needed as its impact on school development. As well as the supervision role, (Dian, Faizal, & Hasanah, 2022; Dian, Trisna, & Huda, 2022) found that school principals' motivation also affects the teachers' performance.

A principal needs to be able to increase the performance of the teachers or subordinates and must also be able to handle all of the school's resources as effectively as it can be to improve the overall quality of education (Liebowitz & Porter, 2019). As (Sharar & Nawab, 2020) said, good teachers' performance is the key factor supporting the school's quality. So that as a leader, the principal must be able to provide influences that can cause teachers to be moved to carry out their duties effectively so that their performance will be better (Landa & Donaldson, 2022; Wang & Sun, 2022). Managerial supervision is carried out by supervisors with an emphasis on supervisor observations of administrative aspects that serve as supporters and facilitators of the implementation of learning (Tasrif, Abubakari, & Hidayat, 2022).

According to the research (Priansa & Setiana, 2018; Priansa & Somad, 2014), academic supervision is a coaching activity that helps teachers by giving them technical support as they carry out the learning process. This is done to benefit teachers' expertise and students' education. According to a study (Setyaningsih & Suchyadi, 2021), academic supervision carried out by principals in a methodical and sequential method has a beneficial impact on teacher effectiveness. It is expected that, as a principal with clout, he would be able to boost the morale of teachers and school personnel and that this will flow down to the students, who will then be more self-aware and motivated to improve their academic performance. In addition, (Estiani & Hasanah, 2022; Ro'is & Rokhman, 2021; Rostini, Syam, & Achmad, 2022) research reveal that teacher efficiency and student achievement rise when a principal implements a new management method. The school's principal has a significant influence, but they aren't the only ones. According to (Munjin & Rosyadi, 2021), managerial supervision plays a role in effecting school growth with principal supervision.

From the preceding, both professional principal and academic, managerial supervision and unprofessional principal and management academic supervision can positively affect teacher performance (Zhou, Liu, Pourpanah, Zeng, & Wang, 2021). Therefore, teachers need direction from the principal and supervisor to develop qualities such as responsibility, authority, independence, and discipline. Teachers should also be well-versed in and strive to uphold societal, moral, and ethical standards (Mulyasa, 2022). However, many principals still do not understand their primary duties and functions as principals, so there is no improvement in the quality of the schools they lead, and a lack of guidance for teachers to improve teacher professionalism (Suhifatullah, 2022; Waruwu, Arifin, & Alam, 2022).

This research was done because no prior work had compared the effects of supervisory, managerial oversight and principal academic supervision on teachers' effectiveness. Furthermore, many Tigaraksa District principals have low performance, so junior high school principals in the Tigaraksa District of Tangerang Regency aren't doing a good job. Similarly, many educators in Tigaraksa District private junior high schools are still hampered in their efforts to enhance their performance due to a lack of direction from their supervisors and principals. This is because supervisors do not offer direct guidance to educators. The supervisor's visit to the target school is strictly confined to gathering the information they require from the school. No instruction from the instructor or students is provided during this time. In light of the foregoing, the current study aimed to quantify the hypothesis that managerial supervision and principal academic supervision positively affect teachers' performance in private junior high schools in the Tigaraksa District of the Tangerang Regency. The other goal is to compare the results of this study to those of other studies that found that each type of supervision can make teachers better at their jobs.

RESEARCH METHODS

This study uses quantitative research methods with analysis. The type of this research is survey research, which takes samples from the population and uses a questionnaire as the primary data collection tool (Singarimbun, 1989). The approach used is descriptive, a process that aims to determine whether there is a relationship or influence (Arikunto, 2006). The three private schools in the Tigaraksa sub-district of the Tangerang district that are the focus of this study are the SMP IT Al-Husein, the Islamic Junior High School Plus Insan Rabbani, and the Al-Fattah Junior High School.

This study was divided into three phases, the first involved collecting data on the number of populations and samples that would be used in the study. Instrument validation occurs in Stage 2, followed by data collection and analysis in Stage 3. Quantitative or statistical data analysis was employed in this study to look into the numbers. The entire thing began in June 2020 and ended in May 2021.

The primary data for this study is whether or not managerial supervision and principal academic supervision make a big difference in how well teachers do their jobs. The numbers in this study's data show how effective management supervision and principal academic supervision have on how well teachers do their jobs. The data for this study were gathered by giving out questionnaires. It was the instrument, or method, for collecting the data.

There are three variables in this research, namely: managerial supervision as the first independent variable (X^1), principal's academic supervision as the second variable (X^2), and teacher performance as the criterion or dependent variable (Y). The research paradigm that links

managerial supervision and academic supervision with improving the performance of private junior high school teachers in the Tigaraksa sub-district can be seen in the image below:

Figure 1. Research Variables
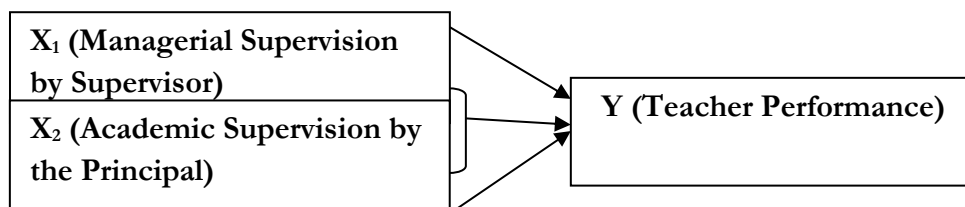
According to (Arikunto, 2010), the population is the whole subject of research. If someone wants to examine all the elements in the research area, then the research is a population study. At the same time, according to (Sugiyono, 2008) the population is a generalisation area consisting of objects/subjects with certain qualities and characteristics determined by researchers to be studied and then concluded. From the above understanding, it can be concluded that the population is all research subjects that have been determined and will be studied. The population in this study were 45 respondents, which included one supervisor, three principals, and forty-one teachers.

This study uses a private junior high school in the Tigaraksa District of the Tangerang Regency as its research subject for several reasons. Because of its proximity to the researcher's home and its convenience for conducting the study, the junior high school served as the research site. The intended audience of this study is the supervisors, principals, teachers, and educators of the 20 private junior high schools in the Tigaraksa District of Tangerang Regency. The private sector is interested in the impact of managerial and academic supervision on these institutions' teaching quality.

Researchers can only access and study populations they can afford to recruit and study. Alternatively, researchers can generalise from the affordable population because it represents a realistically selected sample (Creswell & Creswell, 2018). All units in the affordable population should be included since they are equally likely to be chosen as study samples. There is a limit to what can be sampled and what can be afforded in terms. Three private junior high schools in the Tigaraksa District of Tangerang Regency were chosen as the study's sample, along with their respective supervisors, principals, and teachers. All three of these schools have been in operation for fewer than 15 years but fall into the category of private junior high schools in high demand among the general public.

Table 1. Total Population

Name of School	Amount			Accreditation
	Principal	Teacher	Supervisor	
SMP Islam Terpadu Al-Husein	1	10	1	B
SMP Islam Plus Insan Rabbani	1	14		A
SMP Swasta Al-Fatah	1	17		B
Total	45			

According to (Sugiyono, 2008) the sample is part of the number and characteristics possessed by the population. The sample is part or representative of the population under study. If the population exceeds 100 people, it is permissible to take an example, but if the population is less than 100 people, it is better to study it as a whole. Meanwhile, the total population of this study were 41 teachers, three principals, and one supervisor. In total, there are less than 100 people. This study only consisted amounted to 45 respondents. This is why the sampling technique of this study used the total sampling technique, where the entire population was sampled. If the estimated number of people in a population is low, say under a hundred, a total sample is taken, as suggested by (Yusuf, 2014).

RESULTS AND DISCUSSION
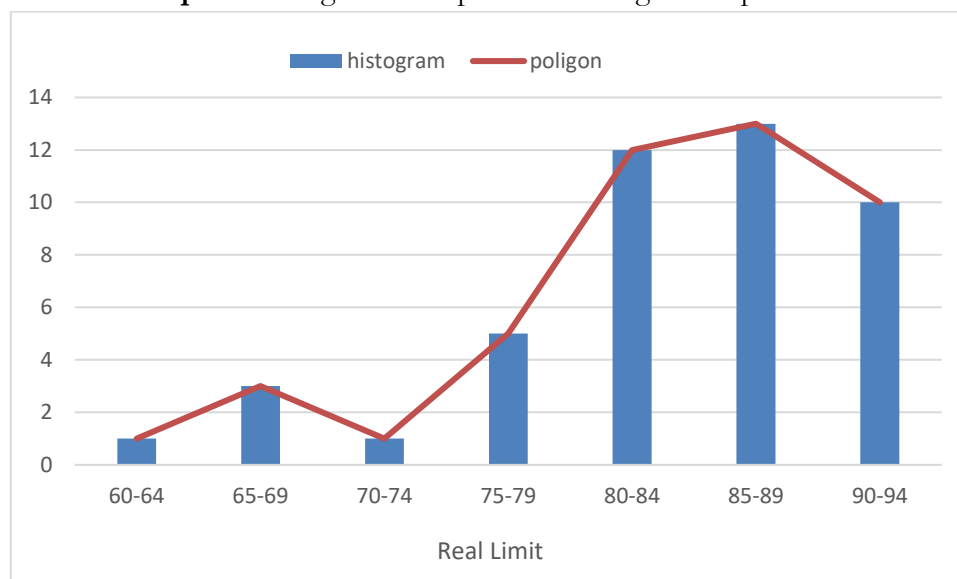### Descriptive of Managerial Supervision Data (X^1)

The managerial supervision variable (X1) score has a theoretical range between 60 - 94. So from the results of descriptive statistical calculations, the mean score = 82.73, median = 85.00, mode = 80.00, variance = 67.88, and standard deviation = 8.23. The data on the managerial supervision variable (X^1) can be described in the frequency distribution table as follows:

Table 2. Frequency Distribution

No	Interval	Frequency Absolute	Xi	FiXi	Frequency Relative	FK
1	60 – 64	1	62	62	2,2 %	2,2%
2	65 – 69	3	67	201	6,7 %	8,9 %
3	70 – 74	1	72	72	2,2 %	11,1 %
4	75 – 79	5	77	385	11,1 %	22,2 %
5	80 – 84	12	82	984	26,7 %	48,9 %
6	85 – 89	13	87	1131	28,9 %	77,8 %
7	90 – 94	10	92	920	22,2 %	100 %
		45	**539**	**3755**	**100 %**	

Based on table 2, the frequency distribution above shows four respondents (8.9%) are in the group below the average or other words, less effective, 17 respondents (37.8%) are above the average or other words effective, 23 respondents (51.1%) are in the group above the average or other words very effective. And here is the presentation in the form of a histogram.

Graph 1. Histogram of Supervisor Managerial Supervision

Supervising managers can confidently assume that their data follow a normal distribution because of the pattern depicted in graph 1 above. It can be seen from the distribution that there are less effective conditions, adequate conditions, and efficient situations.

Description of Principal Academic Supervision Data (X2)

The principal academic supervision variable (X2) score has a theoretical range between 62 - 66. So from the results of descriptive statistical calculations, the mean score = 83.44, median = 85.00, mode = 80.00, variance = 65.07, and standard deviation = 8.06.
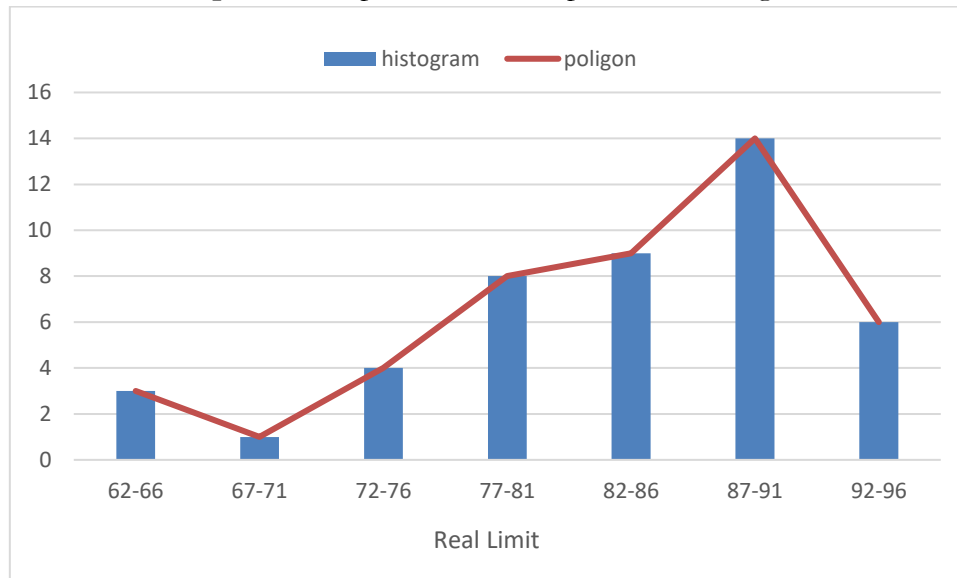
The data on the principal academic supervision variable (X2) can be described in the frequency distribution table as follows:

Table 3. Distribution of Academic Supervision by the Principal

No	Interval	Frequency Absolute	Xi	FiXi	Frequency Relative	FK
1	62 – 66	3	64	256	6,7 %	6,7 %
2	67 – 71	1	69	69	2,2 %	8,9 %
3	72 – 76	4	74	296	8,9 %	17,8 %
4	77 – 81	8	79	632	17,8 %	35,6 %
5	82 – 86	9	84	756	20,0 %	55,6 %
6	87 – 91	14	89	1246	31,1 %	86,7 %
7	92 - 96	6	94	564	13,3%	100 %
		45	**553**	**3819**	**100 %**	

Based on table 3, the above frequency distribution shows that four respondents (8.9%) are in the group below the average, which means they are less effective. Twenty-one respondents (46.7%) are above the average, which means they are effective, and twenty respondents (44.4%) are above the average, which means they are very effective. And here is how it looks in a chart histogram below:

Graph 2. Principal Academic Supervision Histogram

The data from the principal's academic supervision are regularly distributed, as seen in Graph 2. It can be seen from the distribution that there are less effective conditions, adequate conditions, and convenient situations.

Description of Teacher Performance Data (Y)

The variable score of the teacher performance variable (Y) has a theoretical range between 63 - 97. So from the results of descriptive statistical calculations, the mean score = 84.95, median = 80.00, mode = 85.00, variance = 67.63, and standard deviation = 8.22.

The data on the teacher performance variable (Y) can be described in the frequency distribution table as follows:

Table 4. Distribution of Teacher Performance Supervision

No	Interval	Frequency Absolute	Xi	FiXi	Frequency Relative	FK
1	63-67	2	65	130	4,4 %	4,4 %
2	68-72	2	70	140	4,4 %	8,9 %
3	73-77	3	75	225	6,7 %	15,6 %
4	78-82	4	80	360	8,9 %	24,5 %
5	83-87	15	85	1335	33,3 %	57,8 %
6	88-92	10	90	900	22,2 %	80,0 %
7	93-98	9	95	855	20,0 %	100 %
		45	**560**	**3945**	**100%**	

According to the table above, four respondents (8.9%) are in the group below the average, which means they are less effective. 22 respondents (48.9%) are above the average, which means they are effective, and 19.2% of respondents are in the group above the average, which means they are very effective. And here is how it looks in a chart called a histogram:

Graph 3. Teacher Performance Histogram
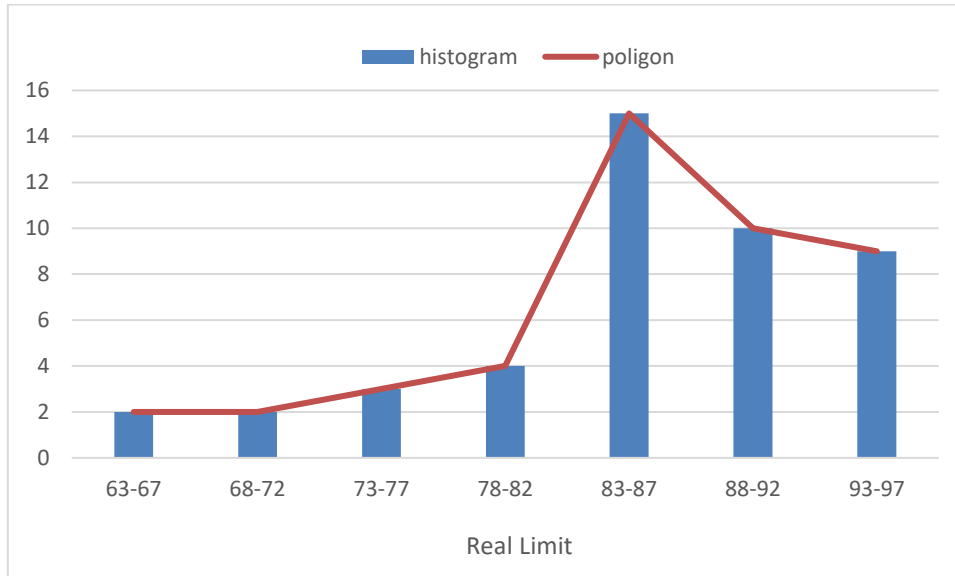
The normality of distribution can be inferred from graph 3 above, which depicts data on teacher performance. It can be seen from the distribution that there are less effective conditions, sufficient conditions, and very practical situations.

Inferential Research Results

Regression analysis can be used to forecast the future and test hypotheses, but only if the intended analytical need is met. Three prerequisites must be satisfied before the investigation can begin: the normality test, the homogeneity test, and the estimation error analysis. Normality test with regression estimation error Y over X is intended to test whether the population is normally distributed or not. The following is statistically written as follows:

H_0 : Population data is normally distributed.

H_1 : Population data is not normally distributed

The Liliefors test was used to perform the calculation for the normality test. In order to make things more precise, the findings of the computation for the normality test are presented in the table below:

Table 5. Summary of Normality Test Analysis

No	Estimated Error	Lo $_{Count}$	Lo $_{table}$	Explanation
1	Y of X_1	0,127	0,133	Normal
2	Y of X_2	0,109	0,133	Normal

Table 5 above shows that the error in the estimation of the managerial supervision variable (X^1) on the teacher performance variable (Y) shows the results of $Lo_{count} = 0.127 < 0.133 = Lo_{table}$. Thus, the data distribution of the managerial supervision variable (X^1) on teacher performance (Y) is normally distributed. At the same time, the estimation error shows the number $Lo_{count} = 0.109 < 0.130 = Lo_{table}$. Thus, the distribution of the principal's academic supervision variable (X^2) on the teacher's performance improvement variable (Y) is normally distributed.

The homogeneity test is intended to test the homogeneity of variance between groups of dependent variable scores (Y), which are grouped based on the similarity of the independent variable values (X). The variable data (Y) is grouped in the testing process based on similarity (X). The first calculation for testing the homogeneity of the variable variance (Y) on the variable (X^1)

obtained the number F_{count} 1.02 < 1.65 F_{table} with an average value -average = 82.71. Because F_{count} < F_{table}, then H_0 is accepted, and H_1 is rejected, it can be concluded that the Y variant on X1 is homogeneous in testing.

Furthermore, the second calculation for testing the homogeneity of the variance of the variable (Y) over the variable (X2) obtained F_{count} 0.96 < 1.65 F_{table} with an average value = 83.44. Because (F_{count} < F_{table}), then H_0 is accepted and H_1 is rejected, it can be concluded that it is homogeneous in testing the Y variant on X2.

The computation of the homogeneity of the variance of Y over X1 and Y over X2 is summed up in the following, which is a summary of the method:

Table 6. Summary of Homogeneity Test Analysis

No	Var Y of Grouping	Number of Samples	F count	F Table	Explanation
1	X_1	45	1,02	1,65	Homogeneous
2	X_2	45	0,96	1,65	Homogeneous

Note: * 5% significance level

The analysis of the requirements analysis test showed that the samples taken in the normality test were normally distributed, while in the homogeneity test, the variables were declared homogeneous. With this, statistical hypothesis testing can be done.

Hypothesis Testing
The Effect of Managerial Supervision on Teacher Performance Improvement

This first hypothesis proposes that managerial supervision (X1) significantly affects how well teachers do their jobs (Y). So, regression and correlation analysis were used to figure out the effect of managerial supervision on teacher performance improvement. And the table below shows the results of simple regression analysis calculations:

Table 7. Analysis of Significance Test Variance and Regression Linearity Test

Su.Va	Db	JK	RJK	Fh	Ft
Total	45	327761			
Reg a	1	324785.09	324785.09	73.16	4.07
Reg b	1	7218.46	7218.465		
Balance	43	4242.55	98.66404		
Tuna Match	27	2704.59	100.17	0.96	2,07
Error	16	1537.96	96.12277		

Based on the analysis of variance in the regression significance test between the X^1 variable and the Y variable in table 7 above, it is known that the F_{count} is 73.16 > F_{table} 4.07. It can be concluded that the Y regression on X^1 is very significant. At the same time, the value of F matches the results of the calculation F_{count} 0.96 < F_{table} 2.07, and the Y regression form over X^1 is linear.

After that, a correlation test was carried out, namely calculating the influence between the independent variable X^1 and the dependent variable Y, where the processed data was taken from the overall value of the X^1 variable (managerial supervision) and Y variable (improvement of teacher performance). The results of a simple analysis obtained a correlation coefficient of 0.987.

The calculation shows that the correlation between the X^1 variables has an effect on the Y variable of 0.987 if consulted with a significant level of 5% and N-nr = 43. The r table value is 0.248. Thus r_{count} is greater than r_{table} (0.987 > 0.248). So, it can be concluded that H_0 is rejected and H_1 is accepted.

Then to find out how much influence the X^1 variable (managerial supervision by supervisors) has on the Y variable (improvement of teacher performance) by calculating the coefficient of determination (KD = r2.100%), the results obtained are 97%. The results of these calculations explain the contribution of managerial supervision made by supervisors to the improvement of teacher performance by 97%. The remaining 3% is influenced by other factors.

The following is a summary table of the results of the calculation of the significance test, the correlation coefficient and the coefficient of determination:

Table 8. Significance, Correlation Coefficient, and Coefficient of Determination of Variable X1

Correlation	R	r^2	Significance Test						
			'N	A	Dk	F_{count}	F_{table}	Decision	Conclusion
r_{xy}	0,987.	97%	45	0,05	43	73,16	4,07	H_1 accepted	Significant Correlation

The Effect of Principal's Academic Supervision on Teacher Performance Improvement

The first hypothesis to be tested postulates that X2, academic supervision by the principal, has a positive and statistically significant effect on teachers' performance (Y). Therefore, regression and correlation analysis was employed to ascertain the impact of the principal's academic supervision on boosting teacher performance. This table displays the outcomes of a straightforward regression analysis.

Table 9. Analysis of Variance of Significance Test and Linearity Test of Regression Variable X^2

Su.Va	Db	JK	RJK	Fh	Ft
Total	45	327761			
Reg a	1	324785.09	324785.09	46.42	4.07
Reg b	1	40425.68	40425.68		
Balance	43	37449.77	870.9248		
Tuna Match	27	35044.23	1297.935	0.12	2,07
Error	16	2405.53	150.3458		

Based on the analysis of the variance of the regression significance test between the X^2 variable and the Y variable in table 9 above, it is known that F count 46.42 > F table 4.07. It can be concluded that the Y regression on X^1 is very significant. While the price of tuna F matches the results of the calculation of F count 0.12 < F table 2.07, the Y regression form over X^2 is linear.

The processed data was then used to conduct a correlation test, in which the link between the independent variable X2 (the principal's Academic Supervision) and the dependent variable Y

was calculated (improvement of teacher performance). The study was rather straightforward, and the resulting correlation coefficient was 0.936.

The computation reveals that the correlation between the X2 variables has an influence of 0.984 on the Y variable; if a 5% significance level and N-nr = 43 are applied, the table value is 0.248; hence, r_{count} is bigger than r_{table} (0.936 > 0.248). The conclusion is, therefore, that H_o is rejected, and H_1 is accepted.

The next step is to use the coefficient of determination to determine how significant of an impact X2 (academic monitoring by the principal) has on Y (improvement of teacher performance). (KD = r2.100%), the results obtained are 88%. The results of the calculations show that 88% of the improvement in teacher performance can be attributed to managerial supervision by supervisors. The other 12% can be attributed to other factors.

The following is a table that provides a summary of the findings obtained from the calculation of the significance test, the correlation coefficient, and the coefficient of determination:

Table 10. Significance, Correlation Coefficient, and Determination Coefficient of Variable X2

Correlation	R	r^2	Significance Test						
			N	α	Dk	F_{count}	F_{table}	Decision	Conclusion
r_{xy}	0,936	88 %	45	0,05	43	46,42	4,07	H_1 Accepted	Significant Correlation

Effect of Managerial Supervision and Principal Academic Supervision on Teacher Performance Improvement

Processed data were collected from the total value of the managerial supervision variable (X1), the principal academic supervision variable (X2), and the Y variable to determine the effect or relationship (teacher performance improvement). A correlation coefficient of 0.953 was calculated based on the data from the easy analysis. From the calculation, the correlation results between the managerial supervision variable (X^1) and the X^2 variable influence the Y variable of 0.953. If consulted with a significant level of 5% and N-nr = 42, the table value is 0.953. Thus, r_{count} is greater than r_{table} (0.953, > 0.304). So, it can be concluded that H_0 is rejected and H_1 is accepted.

The coefficient of determination (KD = r2.100%) between the X (managerial supervision) and Y (improvement of teacher performance) variables was calculated, yielding a 91% accuracy rate. The calculation findings demonstrate how management supervision performed by supervisors (X1) and academic supervision performed by school principals (X2) contribute to raising teacher performance by 91%, with the remaining 9% impacted by other factors.

Table 11. Correlation Coefficient, Determination Coefficient of Variables X1 and X2 Against Y

Correlation	R	r^2	Significance Test				
			N	α	dk	Decision	Conclusion
r_{xy}	0,953	91	45	0,05	43	H_1 accepted	Correlate

DISCUSSION

The Effect of Managerial Supervision on Teacher Performance Improvement

The calculated hypothesis is that the variable of managerial supervision has a good and significant positive effect on teachers' performance improvement. This could be due to the fact that part of the job description for the supervisory manager is to help teachers with things like lesson planning and making sure the school year's schedule is all lined up, as well as to evaluate their work based on things like document 1 of the KTSP, how well it's being implemented, and how much they've learned from observing classrooms and classroom activities (Hossain, 2019; Javed, Malik, & Alharbi, 2020).

Furthermore, in the correlation test, which calculates the relationship between the independent variable X^1 and the dependent variable Y, the correlation coefficient is 0.987. When compared with the interpretation table of the Correlation Coefficient of $0.97 < KK < 0.99$, it shows a very high and very strong correlation level (Pahlawanti, Harapan, & Wardiah, 2020; Sherly, Lie, Candra, Siallagan, & Sudirman, 2021). The magnitude of the effect of variable X1 (managerial supervision by supervisor) on variable Y (improvement of teacher performance) by calculating the coefficient of determination, the results obtained are 97According to the findings, managerial supervision input accounts for 97% of the variance in teacher performance gains. In comparison, the remaining 3% is attributable to other influences.

The Effect of Principal Academic Supervision on Teacher Performance Improvement

Calculating the hypothesis shows that the principal academic supervision variable (X2) significantly positively affects teacher performance improvement (Y). It might be because the principal of academic supervision gave guidance, such as by making a programme academic supervision plan and giving a guidebook. The principal also kept a close eye on the teachers by evaluating the lesson plan and the evaluation sheet, which affected how well the teachers did their jobs.

Furthermore, in the correlation test, which calculates the relationship between the independent variable X^2 and the dependent variable Y, the correlation coefficient is 0.936. When compared with the interpretation table of the correlation coefficient at a vulnerable value of $0.71 < KK < 0.90$, it shows a very high and strong correlation level (Lipuku, Sang, & Rop, 2022; Muazza, 2021). The coefficient of determination finds that the X2 variable (principal academic supervision) significantly affects the Y variable (teacher performance improvement), with a value of 88%. According to these calculations, the principal's academic supervision contributes 88% to the rise in teacher performance (Y), while other factors influence the remaining 12%.

The Effect of Managerial Supervision and Principal Academic Supervision on Teacher Performance Improvement

Using a basic analysis, we determined a correlation coefficient of 0.953 between the independent variables of managerial supervision (X1) and principal academic supervision (X2) and the dependent variable of teacher performance improvement (Y). Compared with the interpretation table, the correlation coefficient of $0.91 < KK < 0.99$ indicates a very high and strong correlation level. Next, to find out how much influence the managerial supervision variable carried out by supervisors and academic supervision carried out by the principal together on improving teacher performance by calculating the coefficient of determination, the results obtained are 91%. The calculations reveal that academic supervision by principals (X2), in addition to managerial

supervision (X1), accounts for 91% of the total effect on teacher performance (Y), with the remaining 9% attributable to other influences.

CONCLUSION

After presenting descriptive and inferential data, researchers were able to derive the following conclusions about studies on managerial supervision by supervisors, academic supervision by principals, and teacher performance improvement. For starters, the correlation test results show a positive association between management oversight by supervisors and the quality of instruction provided to students. According to the findings, supervisors' administrative oversight accounts for 97% of the variance in teacher performance, while the remaining 3% can be attributed to other variables. Second, the correlation test results indicated a high and significant connection between the principal's academic supervision and teacher performance improvement. Principal academic supervision accounts for 88% of student success, whereas other factors account for the remaining 12%. Third, we find a substantial correlation between supervisor administrative oversight and principal academic supervision in terms of teacher performance enhancement. The impact of both management and academic supervision by the supervisor and principal on teachers' performance is determined to be 91%, with the remaining 9% attributable to other variables.

In light of the foregoing discussion, it seems reasonable to conclude that managerial supervision and principal academic supervision have significant effects on instructors. This study has limitations due to the small sample size, the nature of the phenomenon being studied, and the inability to dissect the sample further by demographic factors such as teachers' levels of experience, principals' levels of authority, students' ages, and participants' genders. Therefore, the researcher recommends that future researchers devote more time and energy to studying and investigating those areas.

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