



Examining teacher performance from the perspective of principal academic supervision, work environment, and compensation

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Abstract. The teacher is one of the crucial aspects in the administration of education. No matter how good the curriculum, facilities, and school funding are, the teacher is the spearhead of learning. High teacher performance will make it easier for schools to achieve educational goals. So, in-depth research must be conducted to determine what factors influence teacher performance. This research was conducted to measure the relationship between teacher performance and the principal's academic supervision, work environment, and compensation, partially or simultaneously. Meanwhile, the approach used is quantitative. As many as 144 teachers were selected as research samples using a proportional random sampling technique. The research data were collected through a questionnaire instrument distributed and analyzed using multiple linear regression analysis. The results of the study indicate that teacher performance is significantly influenced by the principal's academic supervision (25.80%), work environment (9.62%), and compensation (8.08%).

Simultaneously, the three variables contribute 43.5% to the variation in teacher performance. This finding indicates that increasing supervision, creating a supportive work environment, and providing appropriate compensation can improve teacher effectiveness. Theoretically, this study strengthens the empirical basis that external factors play an essential role in shaping teacher performance. Further research is needed to explore the stages of follow-up of academic supervision carried out by school principals in developing teacher performance, such as the most effective mechanisms and models of follow-up of educational supervision.

Introduction

The development of the era is so fast, causing changes in various aspects of life. The Changes that occur cause competition among human resources globally. To keep pace with the times, creative, innovative, and superior human resources are needed (Sabrina, 2021). Competitive and quality human resources are a successful educational process (Tanzeh, 2019). Teachers, curriculum, financing, public relations, learning, infrastructure, and graduate competencies support the educational process's success (Mahmudah & Putra, 2021; Purnadewi et al., 2023). Of all the aspects that support the success of the educational process, the teacher is an essential component in the implementation of education. The teacher is the main factor in determining the success of the curriculum (Neliwati, 2021). Ideally, teachers must have good competence so that the curriculum can be implemented properly. Teacher competence is needed in interpreting the curriculum, as well as implementing the curriculum based on student skills and conditions, so that the curriculum can

be optimal (Tran & O'Connor, 2024). It shows that no matter how well the curriculum is designed, it will depend heavily on the teacher as the spearhead who implements the curriculum. The implementation of learning is part of pedagogical competence. This competency is the teacher's ability to introduce, organize, and evaluate learning so that students can develop their potential (Tyagita & Iriani, 2018). By understanding the characteristics of students, a teacher, through pedagogical competence, can produce learning that can overcome the problems that students have (Akbar, 2021; Widana et al., 2023).

The Ministry of Education and Culture organizes a Teacher Competency Test named Uji Kompetensi Guru (UKG) to measure teacher competency. Based on the 2019 UKG results, the average UKG score in Indonesia is 54.25. Data indicate that there is still room for improvement in Indonesia's teacher competency. Low competence will therefore have an impact on low student achievement. Good pedagogic competence will show better teacher performance. So, optimizing teacher performance can be realized if competencies can be carried out properly (Badrudin et al., 2020). Teacher performance is a manifestation of the achievement of learning implementation, which can produce quality graduates (Sopandi, 2019; Yasa et al., 2023). The quality of learning and learning outcomes will be determined by the performance of the teacher's school (Alawi, 2019). Thus, teacher performance is an essential component in realizing educational success. Good teacher performance will facilitate increased success and quality of education (Gaol & Siburian, 2018).

The urgency of this research is driven by the suboptimal performance of teachers observed in the field, supported by the low national average score in the 2019 Teacher Competency Test, which is 54.25. This situation indicates a pressing need for educational stakeholders to identify the key factors that significantly impact teacher performance. There is a lack of research on teacher performance, particularly concerning learning outcomes. Several previous studies have only identified teacher performance in the preparation, implementation, and assessment of learning. Teacher performance can be interpreted broadly, ranging from building relationships with students to providing enriching and remedial activities. Therefore, this research is important to be conducted to explore the factors that influence teacher performance.

Various factors influence the performance of teachers. Principals in developing countries play a role in supervising teacher performance (Alzoraiki et al., 2023). One of the things that principals can do is academic supervision. Academic supervision by the school principal is one of the elements that may have an impact on teacher performance. As a leader, the principal understands the school's actual condition, especially teacher performance (Raberi et al., 2020). Then the principal must carry out academic supervision.

Previously, supervision was only used to evaluate learning (finding teacher errors in teaching). Still, now it has developed into a means of coaching and direction for teachers (Al-Kiyumi & Hammad, 2019). So, academic supervision is an effort to direct and build teacher abilities pedagogically and professionally. So, if the principal's academic supervision runs optimally, it will undoubtedly impact teacher competence, which in turn will affect the teacher's performance. Supervision emphasizes providing guidance and development to teachers (Giri, 2019). Thus, academic supervision is related to advising on planning to implement the learning process in the classroom. In other words, academic supervision aims to improve teacher performance in learning activities. In the field of academic supervision, it has yet to run optimally (Maisyaroh et al., 2021). Academic supervision has not run. Ideally, it still identifies teacher mistakes but does not assist teachers in correcting errors made during learning, such as implementing learning tools (Krisdiana et al., 2022). It implies that academic supervision must be implemented as effectively as possible.

The work environment is essential in affecting teacher performance in their duties. The work environment consists of a physical work environment, an intermediary work environment, and a non-physical one. The physical work environment encompasses everything around the teacher that can be felt and seen, positively or negatively impacting teacher performance (Thahir, 2019). The intermediary environment includes air circulation, noise, lighting, color arrangement, decoration, and odors (Sedarmayanti, 2011). Meanwhile, the non-physical work environment is more focused on the social relationship between individuals, both superiors and co-workers (Lubis, 2020). A pleasant working environment will undoubtedly impact performance. Teacher performance is positively impacted by the work environment. Therefore, the more favorable the workplace, the better the teacher's performance will be. However, in reality, there are schools whose work environment could be more optimal in contributing to improving teacher performance. There is a work environment characterized by a dim color scheme, proximity to the main road, and noise (Pujianto et al., 2020).

Furthermore, the factors that influence teacher performance include compensation. According to (Yontz & Wilson, 2021), increased performance is encouraged by factors including teacher compensation. Reimbursement for teachers' contributions in performing their duties is known as compensation. Financial and non-financial compensation will impact teachers' performance in carrying out their duties (Windasari & Yahya, 2019). Enhancing compensation is crucial for enhancing performance (Astuti & Suhendri, 2019). So, compensation is one of the factors that influences teachers' high and low performance. Compensation can motivate teachers to improve their performance (Ismawati et al., 2022). Schools need to regulate compensation reasonably and rationally. Because compensation is a way for teachers to make ends meet (George & Rhodes, 2020). A teacher will improve his performance if his life can be completed properly. Meanwhile, the compensation received by teachers is currently lower than the minimum wage in an area (Irfan, 2018). The inadequate compensation obtained can result in low teacher performance.

Harefa (2020), Ismawati et al. (2022), and Ramadhan (2017) make the case that the principal's academic supervision, work environment, and compensation have an impact on teacher performance based on prior research. However, as indicated above, there is still room for improvement in the principal's academic supervision, work environment, and compensation. It might affect the teachers' current subpar performance. As a result, this study examines the impact of the principal's academic supervision, work environment, and compensation on teachers' performance. These three variables are additional outside variables that influence teachers' performance. External factors influence the performance of external teachers (Amalda & Prasajo, 2018). Yuliandri & Kristiawan (2020) argue that external factors such as pay, leadership, the workplace, and infrastructure impact teachers' performance. These three variables are, therefore, outside influences on teaching effectiveness.

Research on the influence of academic supervision, work environment, and compensation on teacher performance has been widely conducted in various countries with various approaches. For example, Lochmiller (2019) emphasized that the effectiveness of academic supervision is highly dependent on the credibility of the principal in providing professional coaching. On the other hand, research in Finland conducted by Salo et al. (2019) highlighted the importance of integration between supervision and the formation of learning objectives in improving teacher professionalism. In the context of the work environment, research in Africa Lawrent (2020) found that the physical environment, such as supportive school infrastructure, has a direct impact on the professional identity of teachers. Compensation as an external factor has also been widely studied, such as in the study of Yontz & Wilson (2021), which showed a correlation between teacher salary inequality and student performance in various states in the US. However, although these studies have raised similar topics separately, there are still limitations in integrating the three factors

(academic supervision, work environment, and compensation) simultaneously in one complete model, especially in developing countries. Most of the research in Indonesia remains descriptive and contextual, lacking the strength to raise conceptual dimensions that can be compared globally. The issue of improving teacher performance is not only a national problem. However, it is a global challenge in achieving the Sustainable Development Goals (SDGs), especially targets that emphasize improving teacher quality. Therefore, this study is important not only in the local context but also to strengthen the global discourse on teacher performance management based on a systemic and integrative approach.

Although various studies have highlighted the importance of principal leadership and the work environment on teacher performance outcomes, very few studies have tested these three variables simultaneously, especially by adding compensation as a predictor of teacher performance in the context of developing countries such as Indonesia. In addition, previous studies conducted by [Pujianto et al. \(2020\)](#), [Raberi et al. \(2020\)](#), and [Sumiaty \(2020\)](#) used only planning, implementation, and assessment of student learning outcomes. While research is needed on the broader context of teacher performance. There are indicators of building good relationships with students, enrichment, and remedial abilities ([Supardi, 2016](#)). This is important to do to strengthen the findings that previous studies have made.

Therefore, this study aims to answer the questions: (1) To what extent do the principal's academic supervision, work environment, and compensation affect teacher performance both partially and simultaneously?; (2) Among the three factors, which factor has the most dominant influence on teacher performance? Furthermore, no research focuses on how external variables affect teacher performance. The purpose of this study is to provide empirical contributions that can be used as a basis for making policies for managing human resources in the field of education, especially teacher performance. Therefore, it is crucial to research how the teacher's performance is affected by the principal's academic supervision, work environment, and compensation.

Method

Research Method and Design

Utilizing a quantitative methodology, this study. A quantitative approach to research involves gathering data and using statistical analysis to test established hypotheses, with only a passing connection between the variables and the study's subject ([Sugiyono, 2013](#)). Explanatory research falls under this category. Explanatory research uses analysis to gather data from a particular source, but researchers also use data collection techniques, such as surveys, tests, interviews, and so on. This study employed a quantitative explanatory design, which aims to explain causal relationships between variables through hypothesis testing using statistical analysis.

Population and Sampling Techniques

High schools in Bandar Lampung City's Enggal District served as the site for this study. The sample was taken using proportional random sampling. Proportional random sampling helps researchers to obtain fair and representative samples when not all units in the population have the same size ([Brewer & Hanif, 1983](#)). This was done so that each school that has a different number of teachers can be calculated using the same proportion in a test. 144 teachers served as the study's sample population.

Data Collection Techniques and Research Instruments

The instrument in this study uses a Likert scale. The Likert scale is used because it can measure a person's attitude, perception, or level of agreement with a statement gradually and systematically. This scale is easy for respondents to understand, and the results can be analyzed quantitatively to

support research. Before being used, the research instrument was tested for content validity with the Aiken index. Another instrument test used was a reliability test using Cronbach's Alpha. Based on the instrument test conducted, the instrument used was valid and reliable.

In this study, the development of instruments for teacher performance indicators is based on Supardi's (2016) work, specifically focusing on the ability to plan, implement learning, foster good relationships with students, assess student learning outcomes, implement enrichment, and implement remedial measures. Then, the academic supervision indicators used by the principal are the development of the regulations of the Minister of Education and Culture, namely planning, implementation, and follow-up supervision. Performance environment indicators were developed according to the opinions of Lubis (2020), Sedarmayanti (2011), and Thahir (2019), namely physical, intermediary, and non-physical environments. The instrument for the compensation indicator was developed through Kadarisman (2014), adjusted to the teacher performance indicators, namely wage compensation, health compensation, incentive compensation, and complementary compensation. For more details, please see the table below.

Table 1. Research Instruments

Dimension	Indicators
Teacher performance	<ol style="list-style-type: none"> 1. Ability to plan 2. Ability to implement learning 3. Ability to foster good relationships with students 4. Ability to assess student learning outcomes 5. Ability to implement enrichment 6. Ability to implement remedial
Principal Academic Supervision	<ol style="list-style-type: none"> 1. Planning 2. Implementation 3. Follow-up
Work Environment	<ol style="list-style-type: none"> 1. Physical 2. Intermediary 3. Non-physical environments
Compensation	<ol style="list-style-type: none"> 1. Wage compensation 2. Health compensation 3. Incentive compensation 4. Complementary compensation

Data Analysis Techniques

Multiple linear regression analysis was used as the test. Before being tested, four stages need to be carried out. Normality, multicollinearity, linearity, and heteroscedasticity tests were carried out so that the samples tested were suitable for multiple linear regression tests. Multiple linear regression was conducted to answer the research questions. Especially to find out to what extent the principal's academic supervision, work environment, and compensation affect teacher performance both partially and simultaneously, and to find out which factors have the most dominant influence on teacher performance?

Results and Discussion

Before carrying out the multiple linear regression test, a prerequisite test will be carried out. The following are the results of the prerequisite test:

Normality Test

Based on the tests that have been carried out, the results of the Asymp residual normality test were obtained. Sig. of 0.200. Because of the asymptotic. The obtained significance level is greater than 0.05, indicating the data is usually distributed.

Table 2. Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		144
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	7.81119524
Most Extreme Differences	Absolute	.035
	Positive	.031
	Negative	-.035
Test Statistic		.035
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Asymp. Sig. (2-tailed)

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Multicollinearity Test

The goal of the multicollinearity test is to determine whether or not there is a correlation between the independent variables and the regression model. A good regression model does not correlate with the independent variables. According to the results of the tests, the tolerance value for the principal of the school's academic supervision was 0.794 with a VIF of 1.260; for the work environment variable, it was 0.807 with a VIF of 1.239; and for the compensation variable, it was 0.822 with a VIF of 1.217. The data under test is free of multicollinearity if the tolerance column value is greater than 0.1 and the VIF is less than 10.

Table 3. Multicollinearity Test

		Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics	
Model		B	Std. Error	Beta	Tolerance	VIF
1	(Constant)	40.693	8.966			
	Principal academic supervision	.784	.128	.438	.794	1.260
	Work Environment	.476	.157	.215	.807	1.239
	Compensation	.338	.124	.191	.822	1.217

Linearity Test

According to the test results, the academic supervision variable for the school principal had a significance value of 0.172; the work environment variable had a significance value of 0.240; and the compensation variable had a significance value of 0.622. Since the obtained significance value exceeds 0.05, the data indicate a linear relationship between each independent and dependent variable.

Table 4. Linearity Test

			Sum of Squares	df	Mean Square F	Sig.
Academic Supervision	Between Groups	(Combined)	2665.689	39	68.351	3.312
		Linearity	1669.327	1	1669.327	80.889

Principle *		Deviation from	996.362	38	26.220	1.271	.172
Teacher		Linearity					
Performance	Within Groups		2146.283	104	20.637		
	Total		4811.972	143			
Work	Between Groups	(Combined)	1395.482	39	35.782	2.120	.001
Environment *		Linearity	630.184	1	630.184	37.341	.000
Teacher		Deviation from	765.297	38	20.139	1.193	.240
Performance		Linearity					
	Within Groups		1755.157	104	16.877		
	Total		3150.639	143			
Compensation *	Between Groups	(Combined)	1898.644	39	48.683	1.659	.022
Teacher		Linearity	884.964	1	884.964	30.153	.000
Performance		Deviation from	1013.680	38	26.676	.909	.622
		Linearity					
	Within Groups		3052.356	104	29.350		
	Total		4951.000	143			

Heteroscedasticity Test

According to the test results, the principal's academic supervision variable had a significance value of 0.386; the work environment variable had a significance value of 0.787; and the compensation variable had a significance value of 0.856. The obtained significance value is more significant than 0.05, which suggests no heteroscedasticity in these data.

Table 5. Heteroscedasticity Test

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	8.484	5.374		1.579	.117
	Academic supervision	-.067	.077	-.082	-.869	.386
	Principal					
	Work Environment	.025	.094	.025	.271	.787
	Compensation	-.013	.074	-.017	-.181	.856

a. Dependent Variable: RES2

After the four prerequisite tests are met, a multiple linear regression analysis test will be conducted.

Table 6. t-test

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	40.693	8.966		4.539	.000
	Academic supervision	.784	.128	.438	6.138	.000
	Principal					
	Work Environment	.476	.157	.215	3.041	.003
	Compensation	.338	.124	.191	2.732	.007

a. Dependent Variable: Kinerja Guru

The t-test table indicates that the principal's academic supervision has a sig value of 0.000. The fact that the sig value was 0.05 demonstrates how the principal's academic supervision affects teacher performance. It implies that if the principal exercises intense academic supervision, high school teachers' performance in Bandar Lampung City's Enggal sub-district will also improve.

The t-test table also reveals a work environment sig value of 0.003 in the results. The fact that the sig value was 0.05 demonstrates how the work environment influences teacher performance. It implies that a positive work environment will also result in higher performance from high school teachers in Bandar Lampung City's Enggal subdistrict.

The sig compensation value is then displayed as 0.007 in the t-test table. The fact that the obtained sig value was less than 0.05 demonstrates how compensation influences teacher performance. The performance of high school teachers in Bandar Lampung City's Enggal subdistrict is likely to improve if their compensation is increased.

Table 7. F test

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6715.881	3	2238.627	35.920	.000 ^b
	Residual	8725.112	140	62.322		
	Total	15440.993	143			

a. Dependent Variable: Teacher performance

b. Predictors: (Constant), Compensation, Work Environment, Academic supervision, Principal

Based on the F test, the table shows a calculated F value of 35.920 and a significance of 0.000. So it can be concluded that teacher performance is simultaneously influenced by the principal's academic supervision, work environment, and compensation because the sig value obtained is ≤ 0.05 .

Test the Coefficient of Determination

The outcomes of the coefficient of determination test are as follows:

Table 8. Coefficient of Determination

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.659 ^a	.435	.423	7.894

a. Predictors: (Constant), Compensation, Work Environment, Academic supervision, Principal

b. Dependent Variable: Teacher performance

Additionally, by examining both the practical and relative contributions, it is possible to translate the coefficient of determination analysis results. Practical and relative contributions are used to determine how each independent variable affects the dependent variable. The practical contributions and relative contributions are listed in the table below:

Table 9. effective contributions and relative contributions

Variable	effective contributions	relative contributions
Principals' academic supervision	25.80%	59.32%
Work Environment	9.62%	22.1%
Compensation	8.08%	18.58%

As mentioned earlier, the table demonstrates that the school principal's academic supervision is the factor that most influences the performance of high school teachers in Enggal District, Bandar Lampung City. The academic supervision of the school principal accounts for 25.80% of the total.

The Influence of Principal Academic Supervision on the Teacher's Performance

Based on the study's results, it can be concluded that the principal's academic supervision influences teacher performance. It is further strengthened by the value of the most significant effective contribution of 25.80% to teacher performance. In line with the opinion of [Zohriah et al. \(2022\)](#) that academic supervision is an effort of assistance, guidance, and direction to improve teacher performance so that it is more optimal. The results of this study are also in line with several previous relevant studies by [Raberi et al. \(2020\)](#); [Ramadhan \(2017\)](#), which state that the principal's academic supervision has a significant influence on teacher performance. Teacher performance results from work that shows teacher competence in learning activities ([Supardi, 2016](#)).

The standard in assessing teacher performance is that teachers can produce quality learning ([Elliott, 2015](#)). Through learning that is carried out, the teacher has the task of developing students' competence not only to remember and understand the material provided but also to apply and analyze it ([Salo et al., 2019](#)). So that from the teacher's performance, they can carry out their duties properly as educators who carry out learning activities ([Yourneli, 2019](#)). Learning activities have a broad scope, encompassing not only planning and carrying out learning, but also extending beyond that. Teacher performance can be assessed by preparation in planning a lesson, followed by implementing learning, building pedagogical relationships with the students they teach, and carrying out learning evaluations ([Almeida, 2017](#)).

Teacher performance encompasses planning, facilitating student learning, fostering positive student relations, conducting assessments, and providing enrichment and remedial studies. Therefore, the school principal's role in carrying out the principal's academic supervision is necessary to improve teacher performance. The principal is a school executive committed to achieving educational objectives ([Wenno, 2016](#)). What is more, the teaching experience of the respondents' teachers is quite diverse, so the principal must direct and coach the teachers to achieve educational goals. Implementing effective learning is one of education's objectives. Academic supervision is a form of coaching support and direction for teachers concentrating on learning activities ([Satiri et al., 2024](#)). Direct observation of the learning activities that the teacher engages in during the teaching process is the primary focus of academic supervision ([Samsul, 2019](#)).

Academic supervision was only used to evaluate learning (finding teacher errors in teaching). Still, it has now developed into a means of coaching and directing teacher learning. Academic supervision is an effort to identify errors in learning so that teachers can correct them to improve ([Oliveras-Ortiz & Simmons, 2019](#)). Academic supervision is an effort to foster professional learning ([Lochmiller, 2019](#)). According to [Brandon et al. \(2018\)](#), academic supervision is a significant body of work that encourages teachers to deliver high-quality learning. So indirectly, there is a link between academic supervision and improved learning.

The outcome of a teacher's efforts to implement learning activities is their performance, so it is closely related if the principal's academic supervision impacts a teacher's productivity. In addition, three stages are carried out in academic supervision: planning, implementation, and follow-up ([Leniwati & Arafat, 2017](#)). Compared to other independent variables in this study, the principal's academic supervision significantly impacts teachers' performance because of these three stages. As a result, the school's principal reviewed the syllabi, lesson plans, and instructional materials used by the teachers as part of the planning phase. Academic supervision is implemented to see the suitability of learning with learning devices. In planning and implementing learning, academic supervision can influence a teacher's performance. Thus, this is an effort to develop teachers' performance in schools ([Ampofo et al., 2019](#)). Moreover, finally, the follow-up stage will be closely related to the reflection on the learning activities that the teacher has carried out. Through supervision, teachers are expected to develop their competence, thereby improving their

performance (Salo et al., 2019). So that teachers can perform better when implementing learning activities.

The Influence of the Work Environment on the Teacher's Performance

The study's findings indicate that teachers' performance is influenced by their work environment. The value of an effective contribution of 9.62% to teacher performance further strengthens it. In addition, these results align with several studies from Lubis (2020); Pujiyanto et al. (2020), which state that the work environment influences teacher performance. The three components of the workplace are the actual work environment, the intermediary work environment, and the non-physical work environment. Everything in a teacher's immediate physical vicinity can affect their performance (Thahir, 2019). Tables, chairs, and other physical facilities can make up the workspace. The intermediary work environment includes air circulation, noise, lighting, color layout, decoration, and odors (Sedarmayanti, 2011).

Conversely, the non-physical environment is a workplace that encourages positive interactions between co-workers and school administrators (bosses) (Cintiani & Hadijah, 2018). These three types of work environments impact the effectiveness of teachers. These three factors can be used to gauge how comfortable a person is performing their duties. A teacher will be better equipped to perform their job if they have a good physical work environment. A comfortable classroom environment can affect academic performance (Hanaysha et al., 2023). Then, an ideal intermediary environment can create comfort in carrying out learning activities. Furthermore, the non-physical work environment is vital in building cooperation between school members. A constructive non-physical environment will create a comfortable atmosphere for the teacher to perform his duties.

A good work environment will affect teacher performance when viewed from a teacher's perspective. The workplace environment can harm a person's performance (Nabawi, 2019). A conducive environment allows teachers to improve the quality of learning (Lawrent, 2020). Quality learning is one indicator of good performance by the teacher. An enjoyable work environment can help one focus more intently while performing tasks (Priyono et al., 2018). The work environment will then be related to teacher performance.

The Influence of Compensation on the Teacher's Performance

The findings of the study allow for the conclusion that teacher performance is impacted by compensation. The value of an effective contribution of 8.08% to teacher performance only serves to strengthen it further. In addition, these results align with several relevant studies from Sumiaty (2020); Windasari & Yahya (2019), which state that compensation affects teacher performance. Compensation itself is everything that the teacher receives as a form of remuneration for the work done. One of the purposes of giving compensation is to improve performance (Kadarisman, 2014). Compensation is one of the basic motivations for teachers to improve their performance (Orina et al., 2022). Compensation is not limited to monetary payments but can also include health insurance, specific bonuses, or provisions for holidays and easier leave requests.

Teachers will be happy if they are given compensation according to their workload. Furthermore, will be even more motivated to improve their performance if they share additional payment. His level of needs strongly influences a person's motivation. Conditions will continue to grow, starting from the need for salary, food, and a harmonious social environment to increase self-productivity (Gibson et al., 2012). In other words, if basic needs are satisfied, the subsequent demand results in performance-improving actions taken during their duties. Fulfillment of basic needs makes teachers feel satisfied, so that it can increase teachers' enthusiasm for work (Pozas et al., 2023). Attention is needed in arranging compensation to be given relatively and rationally (Rasyid & Tanjung, 2020). Through compensation, the stimulus will improve teacher performance.

The Influences of Principal Academic Supervision, Work Environment, and Compensation on Teachers' Performance

According to R-squared, the value of the three independent variables on teacher performance is 43.5%. It is in line with relevant research studies from [Lubis \(2020\)](#); [Pujianto et al. \(2020\)](#); [Raberi et al. \(2020\)](#); [Ramadhan \(2017\)](#); [Sumiaty \(2020\)](#); and [Windasari & Yahya \(2019\)](#), which state that the school principal's academic supervision, work environment, and compensation affect teacher performance. Numerous internal and external factors influence the performance of teachers. Teaching experience, motivation, and skills can be internal factors, whereas leadership, the workplace, pay, and other factors can be external ([Yuliandri & Kristiawan, 2020](#)). Therefore, among the many variables that can impact teacher performance, the principal's practices for academic supervision, work environment, and compensation are just a few. As a result, 56.5% of other factors outside of research still impact teacher performance.

Academic supervision seeks to enhance teachers' performance, particularly in lessons ([Supardi, 2016](#)). The principal can determine the teacher's suitability for teaching using the tools he has created through academic supervision ([Firdaus & Sutarsih, 2020](#)). If there are deficiencies in learning activities, the principal can assist in the form of coaching. One of the external factors that can help teachers perform better is their work environment. This allows the teacher to interact with the domain's physical and intangible aspects effectively. In addition, there is an intermediary environment, an additional aspect that needs to be considered when the teacher is teaching. For example, a class near a crowd will produce noise that prevents the class from concentrating well. It will be a challenge for teachers to manage the class. Therefore, a bad work environment can make teachers uncomfortable carrying out learning activities. The compensation given to teachers is a factor that encourages increased performance ([Yontz & Wilson, 2021](#)). Proper compensation can be a driving force for teachers to be more enthusiastic about working. There are at least three main objectives for someone to be given compensation: to secure a job, to increase achievement, and to improve one's performance ([Kadarisman, 2014](#); [Citrawan et al., 2023](#)). Therefore, giving compensation can be a factor that affects teacher performance. Consequently, all three of the independent variables affect teachers' performance simultaneously.

This study's findings revealed a novel aspect that many other researchers had not yet explored. Many academic supervision studies impact teachers' performance ([Pujianto et al., 2020](#); [Raberi et al., 2020](#); [Ramadhan, 2017](#)). Previous research has only focused on the implementation stage of academic supervision. Generally, the principal only observes the teacher's teaching in class ([Skerritt, 2023](#)). Three academic stages of academic supervision must be considered, namely planning, implementation, and follow-up ([Leniwati & Arafat, 2017](#)). In this study, the three stages serve as indicators of teacher performance, and the results suggest that the principal's academic supervision has a significant influence on teacher performance. Furthermore, many research results state that the work environment influences teacher performance ([Lubis, 2020](#); [Thahir, 2019](#)). However, unlike previous studies that only highlight physical or non-physical aspects separately, this study employs a broader approach, including physical, intermediary, and non-physical work environments. Intermediary environments can be air circulation, noise levels, lighting, classroom color and decoration, and unpleasant odors in the classroom ([Sedarmayanti, 2011](#)). This multidimensional approach enriches the understanding of how various work environment conditions can interact and affect teacher performance.

Many research results state that compensation affects teacher performance ([Sumiaty, 2020](#); [Windasari & Yahya, 2019](#)). Previous research has only focused on the salary that affects teacher performance. This study expands the definition of compensation beyond salary to include health

insurance, specific bonuses, and provisions for holidays and ease of leave application. This is expected to produce broader research novelty. However, research has yet to examine the three variables of teacher performance. In addition, the methodological novelty of the research, along with the variable indicators used, is also different. As with teacher performance, researchers added indicators of the ability to build good relationships with students, enrichment, and improvement. Unlike previous studies that only focused on planning, implementation, and assessment of student learning outcomes. Building good relationships with students (providing emotional support to students) is an important indicator because it reflects teacher competence and performance (Soininen et al., 2023). Likewise, enrichment and remedial programs are based on the development of student learning outcome assessment results, enabling us to evaluate the teacher's performance in developing students' abilities (enrichment) and helping students to achieve learning objectives (remedial). So that we include these two indicators in the teacher performance indicators.

There are rarely researchers who use these three indicators in teacher performance. In addition, indicators of work environment variables are divided into physical, intermediary, and non-physical work environments. Whereas many other studies only use physical and non-physical environmental indicators. In addition, indicators of compensation variables in wage compensation, health, incentives, and complements are rarely used simultaneously in compensation research, which affects teacher performance. Therefore, the results of this study will add to scientific insight regarding teacher performance in the field of education management. Among the three variables studied, the influence of principal supervision on teacher performance is the most dominant. This is because academic supervision includes guidance to teachers from the planning stage to the implementation of learning. In addition, the principal also has an important role in providing follow-up after supervision is carried out. Follow-up can be done by sharing knowledge to broaden the teacher's insight so that their performance can be improved (Ubogu, 2020). The follow-up can be in the form of suggestions to improve teacher deficiencies in implementing classroom learning, or directions to participate in training or competency development activities to improve the quality of teacher performance.

Conclusion

Based on the results of the research and discussion, it can be concluded that teacher performance is significantly influenced by the principal's academic supervision, work environment, and compensation, with varying degrees of influence. Of the three variables, the principal's academic supervision has the highest influence compared to other factors. This is because the school's academic supervision directs teachers from planning learning to implementation. In addition, the principal must provide follow-up as the final step in conducting academic supervision. Further research is needed to explore the stages of follow-up to academic supervision carried out by the principal in developing teacher performance. Deeper exploration of the most effective mechanisms and models of academic supervision follow-up. In addition, it can be tested with other approaches, such as mixed methods, to gain a more comprehensive understanding of the factors that influence teacher performance.

Bibliography

- Akbar, A. (2021). Pentingnya kompetensi pedagogik guru. *JPG: Jurnal Pendidikan Guru*, 2(1), 23–30. <https://doi.org/10.32832/jpg.v2i1.4099>
- Al-Kiyumi, A., & Hammad, W. (2019). Instructional supervision in the sultanate of oman: Shifting roles and practices in a stage of educational reform. *International Journal of Leadership in Education*, 22(1), 237–249. <https://doi.org/10.1080/13603124.2018.1543570>
- Alawi, A. H. I. (2019). Kinerja guru dan hubungannya dengan kualitas hasil belajar siswa madrasah

- alimah. *Alim: Journal of Islamic Education*, 1(1), 177–202. <https://doi.org/10.51275/alim.v1i1.124>
- Almeida, J. C. de. (2017). Teacher performance evaluation: The importance of performance standards. *International Journal for Cross-Disciplinary Subjects in Education*, 8(1), 2973–2981. <https://doi.org/10.20533/ijcdse.2042.6364.2017.0404>
- Alzoraiki, M., Ahmad, A. R., Ateeq, A. A., Naji, G. M. A., Almaamari, Q., & Beshr, B. A. H. (2023). Impact of teachers' commitment to the relationship between transformational leadership and sustainable teaching performance. *Sustainability (Switzerland)*, 15(5), 1–16. <https://doi.org/10.3390/su15054620>
- Amalda, N., & Prasajo, L. D. (2018). Pengaruh motivasi belajar dan kedisiplinan siswa terhadap prestasi belajar siswa. *Prima Magistra: Jurnal Ilmiah Kependidikan*, 6(1), 11–21. <https://doi.org/10.37478/jpm.v2i2.1027>
- Ampofo, S. Y., Onyango, G. A., & Ogola, M. (2019). Influence of school heads' direct supervision on teacher role performance in public senior high schools, central region, ghana. *LAFOR Journal of Education*, 7(2), 9–26. <https://doi.org/10.22492/ije.7.2.01>
- Astuti, R., & Suhendri. (2019). Pengaruh kompensasi dan motivasi terhadap kinerja karyawan pada pt. tunas jaya utama. *Jurnal Manajemen Bisnis EKa Prasetya (MBEP)*, 5(2), 1–10. <https://doi.org/10.47663/jmbep.v5i2.22>
- Badrudin, Muliawati, T., Russamsi, Y., & Prayoga, A. (2020). Pengaruh kepemimpinan kepala sekolah dan kelompok kerja guru terhadap kinerja guru sekolah dasar. *Tadbir: Jurnal Manajemen Pendidikan Islam*, 8(1), 66–75. <https://doi.org/10.30603/tjmpi.v8i1.1151>
- Brandon, J., Hollweck, T., Donlevy, J. K., & Whalen, C. (2018). Teacher supervision and evaluation challenges: canadian perspectives on overall instructional leadership. *Teachers and Teaching: Theory and Practice*, 24(3), 263–280. <https://doi.org/10.1080/13540602.2018.1425678>
- Brewer, K. R. W., & Hanif, M. (1983). Sampling with unequal probabilities. In D. Brillinger, S. Fienberg, J. Gani, J. Hartigan, & K. Krickeberg (Eds.), *Springer Science+Business Media* (15th ed.). Springer Science+Business Media. <https://doi.org/10.1007/978-1-4684-9407-5>
- Cintiani, R., & Hadijah, H. S. (2018). Apakah kepuasan kerja guru di ssmk pgri 3 cimahi dapat dipengaruhi lingkungan kerja non fisik ? *Jurnal Pendidikan Manajemen Perkantoran*, 3(1), 28–35. <https://doi.org/10.17509/jpm.v3i1.9453>
- Citrawan, I. W., Widana, I. W., Sumandya, I. W., Widana, I. N. S., Mukminin, A., Arief, H., Razak, R. A., Hadiana, D., & Meter, W. (2024). Special education teachers' ability in literacy and numeracy assessments based on local wisdom. *Jurnal Ilmiah Ilmu Terapan Universitas Jambi*, 8(1), 145–157. <https://doi.org/10.22437/jiituj.v8i1.32608>
- Elliott, K. (2015). Teacher performance appraisal: More about performance or development? *Australian Journal of Teacher Education*, 40(9), 102–116. <https://doi.org/10.14221/ajte.2015v40n9.6>
- Firdaus, M. I. A., & Sutarsih, C. (2020). Implementasi teknik supervisi akademik kepala sekolah dalam peningkatan mutu pembelajaran. *Jurnal Administrasi Pendidikan*, 27(1), 1–10. <https://doi.org/10.17509/jap.v27i1.24371>
- Gaol, N. T. L., & Siburian, P. (2018). Peran kepala sekolah dalam meningkatkan kinerja guru dan mutu sekolah. *Kelola: Jurnal Manajemen Pendidikan*, 5(1), 66–73. <https://doi.org/10.47467/jdi.v1i1.60>
- George, G., & Rhodes, B. (2020). The economics of teaching in india versus teaching aboard: teacher salary differentials using purchasing power parity (ppp). *Journal of International Migration and Integration*, 21(2), 551–561. <https://doi.org/10.1007/s12134-019-00658-z>
- Gibson, J. L., Ivancevich, J. M., Jr, J. H. D., & Konopaske, R. (2012). *Organizations : Behavior, Structure, Processes* (P. Ducham (ed.); 14th ed.). McGraw-Hill.
- Giri, I. M. A. (2019). Supervisi Pendidikan dalam meningkatkan mutu pendidikan di sekolah. *Jurnal Penjamin Mutu*, 2(1), 44–53. <https://doi.org/10.25078/jpm.v2i1.60>
- Hanaysha, J. R., Shriedeh, F. B., & In'airat, M. (2023). Impact of classroom environment, teacher

- competency, information and communication technology resources, and university facilities on student engagement and academic performance. *International Journal of Information Management Data Insights*, 3(2), 100188. <https://doi.org/10.1016/j.jjimei.2023.100188>
- Harefa, D. (2020). Pengaruh persepsi guru ipa fisika atas lingkungan kerja dan motivasi kerja terhadap kinerja guru sma di kabupaten nias selatan. *Jurnal Education and Development Institut Pendidikan Tapanuli Selatan*, 8(3), 112–117.
- Irfan, A. (2018). Supervisi akademik kepala sekolah dan kompensasi dalam kinerja mengajar guru. *Jurnal Administrasi Pendidikan*, 25(2), 264–274. <https://doi.org/10.17509/jap.v25i2.15641>
- Ismawati, R., Mulyono, S., & Astuti, R. (2022). Influences of compensation and career improvement on teacher performance through work motivation. *International Journal of Social Science Research and Review*, 5(1), 193–203. <https://doi.org/10.47814/ijssrr.v6i1.887>
- Kadarisman. (2014). *Manajemen kompensasi*. Rajawali Pers.
- Krisdiana, E., Aminin, S., & Riyanto. (2022). Efektivitas pelaksanaan supervisi akademik kepala sekolah dalam meningkatkan kinerja guru di smk negeri 4 bandar lampung. *POACE: Jurnal Program Studi Adminitrasi Pendidikan*, 2(1), 9–23. <https://doi.org/10.24127/poace.v2i1.1401>
- Lawrent, G. (2020). School infrastructure as a predictor of teacher identity construction in tanzania: the lesson from secondary education enactment policy. *African Studies*, 79(4), 409–427. <https://doi.org/10.1080/00020184.2020.1859356>
- Leniwati, & Arafat, Y. (2017). Implementasi supervisi akademik kepala sekolah untuk meningkatkan kinerja guru. *JMKSP (Jurnal Manajemen, Kepemimpinan, Dan Supervisi Pendidikan)*, 2(1), 106–114. <https://doi.org/10.31851/jmksp.v2i1.1158>
- Lochmiller, C. R. (2019). Credibility in instructional supervision: a catalyst for differentiated supervision. *Differentiated Teacher Evaluation and Professional Learning*, 83–105. https://doi.org/10.1007/978-3-030-16454-6_5
- Lubis, S. (2020). Pengaruh lingkungan kerja, disiplin kerja, dan motivasi kerja terhadap kinerja guru madrasah aliyah negeri 2 model medan. *EduTech: Jurnal Ilmu Pendidikan Dan Ilmu Sosial*, 6(1), 18–26. <https://doi.org/10.30596/edutech.v6i1.4391>
- Mahmudah, F. N., & Putra, E. C. S. (2021). Tinjauan pustaka sistematis manajemen pendidikan: kerangka konseptual dalam meningkatkan kualitas pendidikan era 4.0. *Jurnal Akuntabilitas Manajemen Pendidikan*, 9(1), 43–53. <https://doi.org/10.21831/jamp.v9i1.33713>
- Maisyaroh, Budi Wiyono, B., Hardika, Valdez, A. V., Mangorsi, S. B., & Canapi, S. P. T. (2021). The implementation of instructional supervision in indonesia and the philippines, and its effect on the variation of teacher learning models and materials. *Cogent Education*, 8(1), 1–30. <https://doi.org/10.1080/2331186X.2021.1962232>
- Nabawi, R. (2019). Pengaruh lingkungan kerja, kepuasan kerja dan beban kerja terhadap kinerja pegawai. *Maneggio: Jurnal Ilmiah Magister Manajemen*, 2(2), 170–183. <https://doi.org/10.30596/maneggio.v2i2.3667>
- Neliwati, N. (2021). Pelatihan kurikulum 2013 dalam meningkatkan profesionalitas guru smp it jabal noor, medan krio, sunggal, deli serdang. *Jurnal Abdi Mas Adzkaia*, 1(2), 124–133.
- Oliveras-Ortiz, Y., & Simmons, J. A. (2019). Teacher evaluation and differentiated instructional supervision: a tiered approach to promote teacher growth. *Differentiated Teacher Evaluation and Professional Learning*, 107–126. https://doi.org/10.1007/978-3-030-16454-6_6
- Orina, J. O., Kiumi, J. K., & Githae, P. K. (2022). Determinants of teachers ' motivation and professional development in public secondary schools in kenya. *International Journal of Educational Administration and Policy Studies*, 14(1), 46–52. <https://doi.org/10.5897/IJEAPS2021.0702>
- Pozas, M., Letzel-Alt, V., & Schwab, S. (2023). The effects of differentiated instruction on teachers' stress and job satisfaction. *Teaching and Teacher Education*, 122, 103962. <https://doi.org/10.1016/j.tate.2022.103962>
- Priyono, B. H., Qomariah, N., & Winahyu, P. (2018). Pengaruh gaya kepemimpinan, motivasi guru

- dan lingkungan kerja fisik terhadap kinerja guru sman 1 tanggul jember. *Jurnal Manajemen Dan Bisnis Indonesia*, 4(2), 144–160. <https://doi.org/10.32528/jmbi.v4i2.1758>
- Pujianto, Arafat, Y., & Setiawan, A. A. (2020). Pengaruh supervisi akademik kepala sekolah dan lingkungan kerja terhadap kinerja guru sekolah dasar negeri air salek. *Journal of Education Research*, 1(2), 106–113. <https://doi.org/10.37985/joe.v1i2.8>
- Purnadewi, G. A. A., Arnawa, N., & Tatminingsih, S. (2023). The influence of school culture, learning interest, and learning motivation on science learning outcomes. *Indonesian Journal of Educational Development (IJED)*, 4(2), 126–138. <https://doi.org/10.59672/ijed.v4i2.3040>
- Raberi, A., Fitria, H., & Fitriani, Y. (2020). Pengaruh supervisi kepala sekolah dan peran komite sekolah terhadap kinerja guru. *Jurnal Al-Qiyam*, 1(2), 11–20. <https://doi.org/10.33648/alqiyam.v1i1.123>
- Ramadhan, A. (2017). Pengaruh pelaksanaan supervisi akademik pengawas sekolah dan supervisi kepala sekolah terhadap kinerja guru smk negeri di kabupaten majene. *Journal of Educational Science and Technology (EST)*, 3(2), 136–144. <https://doi.org/10.26858/est.v3i2.3579>
- Rasyid, M. A., & Tanjung, H. (2020). Pengaruh kompensasi, lingkungan kerja dan motivasi terhadap kepuasan kerja guru pada sma swasta perkumpulan amal bakti 4 sampali medan. *Maneggio: Jurnal Ilmiah Magister Manajemen*, 3(1), 60–74. <https://doi.org/10.30596/maneggio.v3i1.4698>
- Sabrina, R. (2021). Manajemen sumber daya manusia: Unggul , kreatif , dan inovatif di era revolusi industri 4.0. *Jurnal Ilmiah Manajemen Dan Bisnis*, 22(2), 216–222. <https://doi.org/10.30596/jimb.v22i2.7703>
- Salo, A., Uibu, K., Ugaste, A., & Rasku-Puttonen, H. (2019). The challenge for school-based teacher educators: establishing teaching and supervision goals. *Teacher Development*, 23(5), 609–626. <https://doi.org/10.1080/13664530.2019.1680426>
- Samsul, H. (2019). Supervisi akademik kunjungan kelas oleh kepala sekolah dalam rangka meningkatkan kinerja guru (studi kasus di smp nw jerua). *Fondatia : Jurnal Pendidikan Dasar*, 3(2), 114–135. <https://doi.org/10.36088/fondatia.v3i2.371>
- Satiri, Fathurrohman, M., & Yuhana, Y. (2024). Enhancement of differentiated learning efficacy via academic supervision in senior high school settings: A comprehensive optimization approach. *Indonesian Journal of Educational Development (IJED)*, 4(4), 424–437. <https://doi.org/10.59672/ijed.v4i4.3311>
- Sedarmayanti. (2011). *Tata kerja dan produktivitas kerja*. CV Mandar Maju.
- Skerritt, C. (2023). School autonomy and the surveillance of teachers. *International Journal of Leadership in Education*, 26(4), 553–580. <https://doi.org/10.1080/13603124.2020.1823486>
- Soininen, V., Pakarinen, E., & Lerkkanen, M. K. (2023). Reciprocal associations among teacher–child interactions, teachers’ work engagement, and children’s social competence. *Journal of Applied Developmental Psychology*, 85(January 2022), 101508. <https://doi.org/10.1016/j.appdev.2022.101508>
- Sopandi, A. (2019). Pengaruh kompetensi profesional dan kompetensi kepribadian terhadap kinerja guru. *Scientific Journal of Reflection*, 2(2), 121–130. <https://doi.org/10.5281/zenodo.2628070>
- Sugiyono. (2013). *Metode Penelitian kuantitatif, kualitatif, dan R&D* (19th ed.). Alfabeta.
- Sumiaty, R. Y. (2020). Pengaruh gaya kepemimpinan, pelatihan dan kompensasi terhadap kinerja guru sekolah al azhar bumi serpong damai tangerang selatan. *Jurnal Madani: Ilmu Pengetahuan, Teknologi, Dan Humaniora*, 3(1), 42–55. <https://doi.org/10.33753/madani.v3i1.99>
- Supardi. (2016). *Kinerja guru*. Rajawali Pers.
- Tanzeh, A. (2019). The Urgency of increasing human resources (hr) in education. *Jurnal Pendidikan Islam*, 7(1), 203–224. <https://doi.org/10.21274/taalum.2019.7.1.203-224>
- Thahir, M. (2019). Pengaruh lingkungan kerja fisik dan non-fisik terhadap kinerja guru. *Jurnal Ilmiah Islamic Resources*, 16(2), 125–134. <https://doi.org/10.33096/jiir.v16i2.12>
- Tran, D., & O’Connor, B. R. (2024). Teacher curriculum competence: how teachers act in

- curriculum making. *Journal of Curriculum Studies*, 56(1), 1–16. <https://doi.org/10.1080/00220272.2023.2271541>
- Tyagita, B. P. A., & Iriani, A. (2018). Strategi peningkatan kompetensi pedagogik guru untuk meningkatkan mutu sekolah. *Kelola: Jurnal Manajemen Pendidikan*, 5(2), 165–176. <https://doi.org/10.24246/j.jk.2018.v5.i2.p165-176>
- Ubugu, R. (2020). Supervision of instruction: A strategy for strengthening teacher quality in secondary school education. *International Journal of Leadership in Education*, 27(1), 1–18. <https://doi.org/10.1080/13603124.2020.1829711>
- Wenno, I. H. (2016). Effect of principal managerial leadership and compensation towards physics teacher performance in senior high school in baguala district-ambon. *International Education Studies*, 10(1), 233–244. <https://doi.org/10.5539/ies.v10n1p233>
- Widana, I. W., Sumandya, I. W., Citrawan, I. W. (2023). The special education teachers' ability to develop an integrated learning evaluation of Pancasila student profiles based on local wisdom for special needs students in Indonesia. *Kasetsart Journal of Social Sciences*, 44(2), 527–536. <https://doi.org/10.34044/j.kjss.2023.44.2.23>
- Windasari, & Yahya, M. Z. (2019). Pengaruh motivasi kerja dan kompensasi guru terhadap kinerja guru smk swasta se-kecamatan bangil. *Kelola: Jurnal Manajemen Pendidikan*, 6(2), 188–192. <https://doi.org/10.24246/j.jk.2019.v6.i2.p188-192>
- Yasa, I. P. G., Widana, I. W., & Aisyah, S. (2023). The determination of the principal's leadership style, teachers' work motivation, and the mindset of the performance of elementary school teachers. *Edukasi: Jurnal Pendidikan dan Pengajaran*, 10(1), 42–50. <https://doi.org/https://doi.org/10.19109/ejpp.v10i1.16790>
- Yontz, B. D., & Wilson, R. E. (2021). Teacher salary differentials and student performance: are they connected?. *Journal of Educational Issues*, 7(1), 168. <https://doi.org/10.5296/jei.v7i1.18400>
- Yourneli, R. (2019). The Influence of principal leadership and organizational culture on the teachers' performance. *International Conference on Educational Sciences and Teacher Profession*, 295, 88–90. <https://doi.org/10.2991/icetep-18.2019.21>
- Yuliandri, J., & Kristiawan, M. (2020). Peran kepemimpinan kepala sekolah terhadap peningkatan kinerja guru. *Prosiding Seminar Nasional Pendidikan*, 570–577. <https://doi.org/10.31219/osf.io/k28p5>
- Zohriah, A., Fauzi, A., & Pandini, I. R. (2022). The impact of managerial and principal academic supervision on teacher performance. *Nidhomul Haq : Jurnal Manajemen Pendidikan Islam*, 7(3), 434–449. <https://doi.org/10.31538/ndh.v7i3.2607>