

The Effect of Principal Leadership and Teacher Competence on Teacher Performance with Learning Management as a Mediating Variable

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Abstract

Background - Teacher competencies include pedagogic, professionalism, social and personality. However, there are still many problems faced regarding the development and implementation of these competencies in schools.

Purpose - This study aims to describe the effect of principal leadership and teacher competence on teacher performance with learning management as a mediating variable.

Method/approach - The approach used in this research is quantitative with a correlational design.

Findings - The results showed that: (1) principal leadership has a positive but insignificant effect on performance, T-count = 0.943 and p-value = 0.346; (2) learning management has a positive and significant effect on teacher performance, T-count = 6.261 and p-value = 0.000; (3) teacher competence has a positive and significant effect on teacher performance, T-count = 6.033 and p-value = 0.000; (4) principal leadership, learning management, and teacher competence simultaneously have a positive and significant effect on teacher performance, R-square = 0.684 and SRMR = 0.064; (5) through the mediation path on learning management it is found that leadership indirectly has a positive and significant effect on teacher performance, T-count = 4.510 and p-value = 0.000; (6) through the mediator of learning management it is found that teacher competence indirectly has a positive and significant effect on teacher performance, T-count = 17.477 and p-value = 0.000. Improving teacher performance is expected to be followed with concrete steps through various competency improvement programs, training, and relevant policy improvements.

Conclusion - Learning management plays a crucial mediating role in enhancing the impact of both leadership and competence on teacher performance. Strengthening this variable is key to improving teacher outcomes in schools.

Novelty/Originality/Value - This study contributes to the literature by empirically validating learning management as a significant mediating factor between leadership, competence, and teacher performance—a relationship that is rarely explored in previous studies. The integration of leadership, competence, and instructional management provides a comprehensive model for improving educational quality.

Keywords: Principal Leadership, Learning Management, Teacher Competency, Teacher Performance.

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INTRODUCTION

The achievement of development is essentially to improve the lives of all Indonesian people so that they are advanced and prosperous based on Pancasila. Education is one of the main pillars of building quality human resources. The readiness of the resources involved in the education process determines the quality. According to Suncaka (2023) education in Indonesia is of low quality. One of the reasons for this low quality is related to teachers. In fact, teachers can be said to be the main key to the education system. Based on Government Regulation No. 74/2008, teachers have a role as educators, mentors and prime movers in the education system.

Schools are formal institutions where the education process contributes greatly to determining the quality of the education system. However, until now there are still problems in schools related to teachers. As stated by Supardi (2014) that schools face problems including management and educators/ education personnel who have not met the qualifications and performance as expected.

The phenomenon related to teacher performance was also stated by Usman in Yuniati and Sugeng, P (2019) which states that in reality, the quality of teacher performance is still not optimal. Many assume that teachers carry out their duties only as a routine. In addition, the community or parents of students sometimes criticize teachers as incompetent and unqualified individuals. This kind of judgment often arises when their children experience difficulties in solving problems or abilities that are considered not in line with expectations.

In order to add information about the problems surrounding teacher performance, the researchers conducted an initial survey which included several components so as to obtain facts, among others: (1) quality, namely there are teachers who are not guided by lesson plans in teaching, skills are not in accordance with the subjects taught, there are teachers who do not carry out assessments of students in the cognitive, skill and attitude domains; (2) quantity, namely there is a level of achievement of teaching hours not more than 80%, there are teachers who are not on time to teach; (3) reliability, namely there are teachers who are not guided by school rules and regulations, and teachers do not use learning media; (4) attitude, namely there are teachers who are not friendly to school residents. These results reinforce the need to conduct research on teacher performance because teachers are the main subject in delivering the success of the education system.

According to Purwoko (2018), low teacher performance is caused by unsupportive leadership and unstructured management. The same thing was revealed by Peter (1994) in Supardi (2014) that the low motivation and achievement of teachers which has an impact on the profession cannot be separated from the lack of the principal's role in guiding and supporting teachers at school. Suryani & Pranoto (2020) also stated that there are still principals who are less able to lead so that they tend to cause a decrease in teacher motivation and performance. In addition, Yahyuni, U et al (2024) mentioned that the principal's leadership that tends to be formal and less focused on important aspects of learning is an obstacle in improving teacher skills. This is shown by the fact that principals are less able to organize school strategies, provide less support, and lack effective communication.

Mulyasa (2015) states that the success of the learning process is highly dependent on the principal's management skills towards various elements in the school environment. The skills are mainly related to the principal's knowledge and understanding of management and leadership. The principal acts as a driving force that can build an effective working environment, motivate teachers, and encourage the improvement of the quality of education. Principal leadership is inseparable from the actions in fostering, directing and encouraging the active participation of school members to realize the goals and vision and mission of the school. However, there are still principals who often prioritize administrative interests so that management in learning and

teaching is neglected. This, directly or indirectly, will affect student learning outcomes and teacher performance.

Schools have the main function as an organizer of the teaching and learning process, so it is fitting that the focus of the principal's leadership role lies in the implementation of optimal learning. Optimal learning is determined by the existence of a conducive work environment where teachers are motivated to perform optimally. The success of a learning process is determined by good management, starting with planning, implementation, assessment and evaluation. The governance of learning is called learning management. The relationship between teachers and learning management is very close, because teachers are the main actors who carry out learning management in the classroom. Teachers function as learning managers who manage the entire learning process.

Dimiyati (2005) defines learning management as activities carried out by teachers in guiding students to learn how to learn, as well as receive and process knowledge, skills, and attitudes. From this understanding, teachers must prepare teaching materials, determine learning objectives, use appropriate and interesting media, and apply appropriate learning methods and strategies. But in fact, according to Ratnawati (2018) there are schools that have not been good at implementing learning management. For example, a teacher has formulated learning objectives, has teaching materials, and chooses appropriate teaching methods, but does not utilize learning media in the KBM process, most likely the results achieved will not be optimal. Rahmi Fentina Sari (2017) argues that there is limited teacher knowledge related to learning management, because it appears that teachers do not master effective learning methods. The mismatch between material delivery and student learning needs often triggers a variety of classroom behaviors, such as boredom due to monotonous methods, talking outside the learning context, or even falling asleep during the teaching and learning process. This condition results in learning ineffectiveness and inefficiency. This kind of phenomenon seems to be a common habit in various schools, so that learning situations that reflect high learning enthusiasm and take place effectively are still rarely found.

A teacher must be professional because teaching demands certain skills that others do not have. Teachers should have certain skills in improving the quality of their resources, which is called competence. Teacher competence is a fundamental aspect of education that affects the quality of the teaching and learning process and student learning outcomes. Teacher competencies include pedagogic, professionalism, social and personality. However, there are still many problems faced regarding the development and implementation of these competencies in schools.

In Mia, Y. G., & Sulastri, S. (2023), it is stated that many Indonesians still complain that the professional competence of teachers is still low. Many teachers have not been able to integrate various learning methods in accordance with the characteristics and needs of students, resulting in low student participation and learning quality (Mulyasa, 2022). On the other hand, some teachers face difficulties in updating their knowledge and skills as the curriculum and technology evolve. This is often due to limited professional training opportunities and lack of access to the latest learning resources. Zola, N., & Mudjiran, M. (2020) state that experience proves that various problems such as motivation, discipline, social behavior, achievement, and sustainable learning spirit in students often stem from the teacher's personality. Some teachers face challenges in maintaining integrity, motivation, and professionalism in teaching. It was also mentioned in Huda, M (2017) that some teachers have not fully demonstrated exemplary and high motivation in carrying out their duties. This can affect students' enthusiasm and views of teachers as role models. In fact, without strong personality competence, a teacher is difficult to be an inspiration and role model for students.

These problems should be of particular concern to the government, educational institutions

and the wider community, given the important role of teachers in shaping a competent and competitive generation. Therefore, improving teacher performance is expected to be followed up with concrete steps through various competency improvement programs, training, and relevant policy improvements.

METHODS

This research was conducted at public high schools in Pekanbaru City. The population in this study were public high school teachers in Pekanbaru city in the 2024/2025 academic year consisting of 19 schools with a total of 1225 teachers. The sampling technique applies proportional random sampling, using the Slovin formula with a precision level of 5% so that a sample size of 296 people is obtained.

The data analysis process is carried out starting from selecting, simplifying and organizing data logically and systematically in accordance with the research objectives. This process also involves presenting the research data in tabular form to facilitate interpretation. In this study, the data analysis technique used a quantitative descriptive approach. The data analysis approach uses the Partial Least Square (PLS) method. The choice of method is based on its ability to provide more in-depth details about indicators and allows to display detailed information about the relationship between indicators.

This study consists of variables of Principal Leadership (denoted by X1), Learning Management (denoted by X2), Teacher Competency (denoted by X3), and Teacher Performance (denoted Y). From the developed structural model, X1 and X3 are exogenous variables, and X2 is both exogenous and endogenous. Meanwhile, Y is an endogenous variable.

RESULTS AND DISCUSSION

To see the magnitude used in this hypothesis test, a bootstrapping technique has been carried out on data that has been tested for validity and reliability. In addition to obtaining the T-count value, bootstrapping also provides the results of the path coefficient, and p-value needed in hypothesis testing. The results of the bootstrapping technique using the smartPLS 4 application are shown in Table 1.

Table 1. Path Coefficient, T-count and p-value

Hipotesis	Path Coefficient	Sample means (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Principal Leadership (X1) -> Teacher Performance (Y)	0.041	0.044	0.043	0.943	0.346
Learning Management (X2) -> Teacher Performance (Y)	0.428	0.429	0.068	6.261	0.000
Teacher Competence (X3)-> Teacher Performance (Y)	0.425	0.422	0.070	6.033	0.000
Principal Leadership (X1) -> Learning Management (X2)	0.201	0.204	0.044	4.510	0.000
Teacher Competence (X3) -> Learning Management (X2)	0.704	0.702	0.040	17.477	0.000

Based on Table 1, it can be seen that of the five hypotheses developed, all have positive path coefficients. So that all exogenous variables have an influence on the endogenous variables. The results of the hypothesis testing conducted have confirmed and provided an overview of the relationship between variables that have been developed in the structural model. The following is a further discussion in the form of analysis and interpretation of the test results:

Effect of Principal Leadership on Teacher Performance.

Based on hypothesis testing, it shows that principal leadership has an insignificant positive effect on teacher performance. This hypothesis cannot be accepted (rejected). This is less in line with the results of Rika Dwi Putri, et al (2023) that teacher performance is partially significantly influenced by principal leadership. The same thing related to differences with the results of hypothesis 1 testing is also found in Purwoko's research (2018).

In a positive view, principal leadership should have a causal relationship with teacher performance in learning. The results of hypothesis testing conducted on teachers in public high schools in Pekanbaru City show that there is such an influence, but statistically the direct effect is not significant. In many cases, the principal's leadership approach, the impact cannot be seen directly and needs a sufficient process.

Furthermore, the indirect effect between principal leadership and teacher performance can be identified using the mediating variable of teacher learning management ($X^1 \rightarrow X^2 \rightarrow Y$). Referring to the data processing, it is found that principal leadership has an indirect significant positive effect on teacher performance through the mediating variable of learning management. The results emphasize that the effect of principal leadership on teacher performance is not a direct indication. However, this influence can be seen from the learning activities that are between these two variables.

Effect of Learning Management on Teacher Performance.

The results of hypothesis testing illustrate a significant positive effect of teacher learning management on teacher performance, so this hypothesis can be accepted. A teacher who is committed and consistently applies the three stages of learning management can have a good impact on learning outcomes. Some indicators that can be seen as the impact of good teacher learning management are the quality of teacher work, accuracy in learning, learning initiatives and increasing teacher capacity Rimatuzzahriah et al, (2024).

Learning management is closely related to the quality of teacher work. With good learning management, teachers can improve accuracy in the learning process and evaluation. This is very positive in providing certainty for students and school performance in general. The implementation of learning management that is carried out consistently and correctly will encourage teachers to take more initiative. Teachers will better understand which parts are good, and which parts need improvement. Teachers will take the initiative to continue to learn and improve their capacity. Based on the data and the results of the hypothesis testing, the relationship between learning management and teacher performance has a fairly high coefficient value.

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The Effect of Teacher Competence on Teacher Performance

The results of data processing on the hypothesis illustrate that there is a significant positive effect of teacher competence on teacher performance, so this hypothesis can be accepted. This is in line with the results of Hendri Rohman's research (2020) revealing that the four teacher competencies both partially and simultaneously have a significant effect on teacher performance. The same thing was also found by Elfida. D, et al (2020) that teacher competence has a positive effect on teacher performance.

In various theories, it cannot be denied that personal quality and capacity are important assets for achieving personal quality. In line with this, teacher competence has a strong influence on performance, one of which can be shown in the quality of teacher work. Based on the data and the results of the hypothesis testing, the relationship between the teacher competency variable and teacher performance has a fairly strong path coefficient value. This is also confirmed by statistical tests that show its significance.

Pedagogic, professional, social, and personality competencies describe teacher competence in general. These four aspects are important in supporting the achievement of learning performance. Cognitive abilities that continue to be improved, including literacy in information and communication technology, make teachers more creative, have initiatives in supporting the quality of work. Likewise, teachers' pedagogical and professional skills must be maintained and improved. Professional teachers will improve the quality of learning. This professionalism makes the values and ethics of learning well maintained. Other teacher performance in the form of experience and communication skills will continue to improve in line with the improvement of teacher competencies, including social competencies.

The Effect of Principal Leadership, Learning Management, Teacher Competency on Teacher Performance

The results of hypothesis testing are depicted on the path diagram, namely the direct relationship of the three hexogenous variables to the endogenous variables. Based on hypothesis testing, it shows that this hypothesis can be accepted, namely that there is a significant positive influence between principal leadership, learning management, and teacher competence on teacher performance. This is in line with the results of research by Mulia Sosiady (2022) which revealed that principal leadership and competence partially and simultaneously had a significant positive effect on the performance of public high school teachers in Pekanbaru City with a contribution of 55% and 45%.

Schools must continue to develop from year to year, which means there needs to be a harmonious teacher-principal relationship and work atmosphere in order to create an educational environment that supports educational improvement. Based on this framework, it can be assumed that teacher performance is positively influenced by principal leadership, learning management and teacher competence. It can be concluded that the three variables simultaneously contribute maximally to teacher performance.

Indirect Effect (Mediating Variable)

In the structural model and hypothesis developed, Learning Management (X2) is a mediating variable. The X2 variable creates an indirect path between principal leadership (X1) to teacher performance (Y), namely $X1 \rightarrow X2 \rightarrow Y$ and teacher competence (X3) to teacher performance (Y), namely $X3 \rightarrow X2 \rightarrow Y$. The Sobel test can be used to see the indirect effect of X1

and X3 on variable Y through the mediating variable X2. The Sobel formula can also use the T-statistics to test the hypothesis. Based on the bootstrapping technique, the magnitude of the hypothesis on the indirect path is obtained as presented in table 2.

Table 2. T-Count for Indirect Path

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
X1 -> X2 -> Y	0.086	0.087	0.022	3.995	0.000
X3 -> X2 -> Y	0.302	0.301	0.052	5.764	0.000

Table 2 shows that the indirect path hypothesis of principal leadership (X1) on teacher performance (Y) through the mediating variable of teacher learning management (X2) is found that the T-count of 3.995 is greater than the T-table value = 1.65. Likewise, the p value is shown to be smaller than 0.05. This means that variable X1 has a significant indirect effect on variable Y through the mediating variable X2. However, based on the hypothesis testing that has been done previously, the principal's leadership (X1) has a direct influence on teacher performance (Y) but it is not significant.

From the same test, it can be seen that the teacher competency variable (X3) has a significant indirect path to the teacher performance variable (Y) through the mediating variable of teacher learning management (X2). This is shown by the calculated T value of 5.764 > T table. Based on the results of the previous hypothesis test, it shows that teacher competence (X3) also has a direct-significant effect on the teacher performance variable (Y).

Effect of Principal Leadership on Learning Management

The results of hypothesis testing illustrate a significant causal relationship between the principal's leadership variable (X1) on learning management (X2), so this hypothesis can be accepted. Principal leadership as generally leadership in an organization can be seen from several aspects including leadership approach, decision making, communication, and organizational management. The right principal leadership approach, especially in providing clear direction, is important for all school members. For teachers, clear direction in the form of translating the vision, mission and goals of the school is an important part of the learning planning process.

Making the right decision by the principal at the right time will provide certainty for teachers in planning and implementing learning. Various kinds of decisions taken can be implemented well if done with a two-way communication and feedback approach. The principal's leadership approach must be consistently carried out from the beginning to the end of learning management. Various forms of organizational management, especially in the management of teacher human resources, are the keywords for the success of teacher learning management. Motivation, encouragement, support and feedback provided by the principal will trigger and control better teacher learning management. Thus, the principal's leadership relationship is very influential for teacher learning management.

Effect of Teacher Competence on Learning Management

The results of hypothesis testing illustrate the significant influence of the teacher competency variable (X3) on teacher learning management (X2). Then this hypothesis can be accepted. Among all the paths developed in this model, the relationship between the teacher competency variable and learning management shows the highest coefficient value. This shows the magnitude of the aspect of teacher competence on learning management. Based on existing data, one of the issues often discussed is the low and irrelevant quality of graduates from an

educational institution. Improving the competence and quality of teachers must continue. Good teacher competence at least provides the capacity to plan, manage and evaluate learning well. The relationship between the strength of the influence of teacher competence on learning management has been proven by the hypothesis test presented earlier

Based on the data that has been presented, it shows that there is a significant indirect effect of variable X1 on Y. It can be seen that the value of this indirect path coefficient is 0.086 with t count 3.995 and p value <0.05. The results of this statistical test strengthen the argument that based on the data obtained from public high school teachers in Pekanbaru, the principal's leadership factor indirectly has a significant influence on teacher performance. However, the indication cannot be seen directly, but through processes or intermediary variables (mediating variables) such as learning management variables.

The same results also show that the indirect path between teacher competence and teacher performance has a path coefficient value of 0.302. The statistical test of this path shows a t-value of 5.764 with a p-value smaller than 0.05. Based on this information and hypothesis testing and the previous discussion, it shows that the teacher competency variable (X3) directly or indirectly significantly affects the teacher performance variable (Y).

It can be concluded that teacher performance (Y) is influenced by principal leadership (X1). However, based on the hypothesis test conducted, the effect is not statistically significant. This conclusion is in line with the results of research by Jumarpati, et al (2023), namely the Y variable is not significantly influenced by X1 at UPT SMA Negeri in Palopo City. In addition, this conclusion is also close to the results of Rachmawati's research, Y (2013), namely the effect of variable X1 on variable Y is only 15.1%

Several reasons can explain this phenomenon:

Individual teachers: Individual factors such as motivation, competence, and professional commitment affect teacher performance. Although principals have a leadership role, these personal factors generally have a more dominant impact on teacher performance.

Work Environment and Organizational Culture: The organizational culture and work environment in schools also play an important role in determining teacher performance. If the work culture is not supportive or the work environment is not conducive, the principal's leadership may not be enough to significantly improve teacher performance.

Job Satisfaction: Although the principal has an influence on creating a supportive environment, there are other factors that contribute to job satisfaction such as workload, work communication, and rewards received. In some institutions, especially in public school institutions, the application of the reward and punishment system (meritocracy) has not run optimally. Good-performing teachers and average-performing teachers often make no difference in terms of performance rewards.

Indirect Factors (Mediation): Although the effect is not significant on teacher performance, the principal's leadership has a significant effect on the learning management carried out by teachers. This explains that principal leadership has a significant role in creating good learning governance (management). Furthermore, the results of the hypothesis test conducted show that learning management has a significant influence on teacher performance. Based on this, teacher performance is indirectly influenced by the principal leadership variable through the mediating factor of learning management.

CONCLUSION

Learning management as an intermediary that connects principal leadership and teacher competence. With the mediator of learning management, principal leadership has a positive and significant influence. This has different results if taken on the direct path. Simultaneously, the three exogenous variables involved in the study have a positive and significant effect on the endogenous variables. In general studies, the discussion of teacher performance only focuses on learning management indicators, namely planning, organizing, implementing and evaluating. In this study, teacher performance consists of general indicators while still covering aspects of the duties and responsibilities that teachers must fulfill in supporting the overall improvement of education quality. Performance reflects a person's success in carrying out tasks in an institution. Thus, it can be used as an alternative in evaluating teachers in their duties in an educational institution.

REFERENCES

- Jumarpati, J., & Dewi, S. R. K. (2023). The Effect of Principal Leadership and Work Environment on Teacher Performance at UPT SMA Negeri Sekota Palopo. *SEIKO: Journal of Management & Business*, 6(2).
<https://journal.stieamkop.ac.id/index.php/seiko/article/view/5698>
- Mia, Y. G., & Sulastris, S. (2023). Analysis of Teacher Professional Competence. *Journal of Practice Learning and Educational Development*, 3(1), 49-55.
<https://digitalpress.gaes-edu.com/index.php/jpled/article/view/93>
- Mulyasa. 2015. *Becoming a Professional Teacher Creating Creative and Fun Learning*. Bandung: PT Remaja Rosdakarya.
- Purwoko, S. (2018). The influence of principal leadership, teacher commitment, teacher work discipline, and school culture on the performance of vocational school teachers. *Journal of Accountability in Education Management*, 6(2), 150-162.
<https://journal.uny.ac.id/index.php/jamp/article/view/8467>
- Rimatuzzahriah et al. (2024). Development of History Learning E-Module to Support Differentiated Learning. (2024). *Lembaran Ilmu Kependidikan*, 53(2), 139-153. <https://doi.org/10.15294/lik.v53i2.8670>
- Rohman, H. (2020). The influence of teacher competence on teacher performance. *Journal of MADINASIKA Education and Teacher Management*, 1(2), 92-102.
<https://ejournal.unma.ac.id/index.php/madinasika/article/view/481>
- Sari, R. F. (2017). The Relationship between Teacher Knowledge of Learning Management and Teacher Performance at MTs Negeri 2 Medan. *Benchmarking*, 1(2).
<https://jurnal.uinsu.ac.id/index.php/benchmarking/article/view/1124>
- Sosiady, M. (2022). Analysis of Teacher Performance based on the Influence of Principal Leadership and Teacher Competence on Work Motivation of Public High School Teachers in Pekanbaru City. *Journal of Management Science Community*, 1(3), 223-230.
<https://jkmk.akademimanajemen.or.id/index.php/home/article/view/49>
- Sukmana, et al. (2024). Development the Influence of Leadership Commitment and Performance of Principals and Teachers on the Model of Improving Quality of Education. (2024). *Lembaran Ilmu Kependidikan*, 53(2), 171-185. <https://doi.org/10.15294/lik.v53i2.15158>
- Suncaka, E. (2023). Reviewing the Problems of Low-Quality Education in Indonesia. *Journal of Management and Education*, 02(03), 36-49.
<http://journal.an-nur.ac.id/index.php/unisanjournal/article/view/1234>
- Yahyuni, U., Sumbawati, M. S., Roesminingsih, E., Khamidi, A., & Hariyanti, N. (2024). The Influence of Teacher Competence, School Climate, and Principal Leadership on Teacher Performance. *Journal of Education Research*, 5(3), 2546-2554.
<https://www.jer.or.id/index.php/jer/article/view/1065>
- Zola, N., & Mudjiran, M. (2020). Analysis of the urgency of teacher personality competence. *Journal of EDUCATIO: Indonesian Journal of Education*, 6(2), 88-93.
<https://jurnal.iicet.org/index.php/j-edu/article/view/701>