

Principal Leadership, Teacher Performance, and Teacher Discipline as Predictors of Graduate Quality in Public Elementary Schools: Evidence from Pabelan District, Semarang Regency

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ABSTRACT

Graduate quality is one of the main indicators of educational success, reflecting the effectiveness of school management, instructional processes, and the professionalism of educational personnel. This study aims to examine the influence of principal leadership, teacher performance, and teacher discipline on graduate quality in public elementary schools in Pabelan District, Semarang Regency. This research employed a quantitative approach with an *ex post facto* design. The population consisted of 186 teachers from 21 public elementary schools, with a sample of 128 teachers selected through simple random sampling. Data were collected using questionnaires and analyzed using multiple linear regression analysis with the assistance of SPSS. The results revealed that principal leadership, teacher performance, and teacher discipline had positive and significant effects on graduate quality. Partially, principal leadership had a significant effect on graduate quality ($t = 2.160$; $p < 0.05$), teacher performance significantly influenced graduate quality ($t = 2.341$; $p < 0.05$), and teacher discipline showed the strongest influence among the independent variables ($t = 6.091$; $p < 0.05$). Simultaneously, the three independent variables contributed 74.6% to the variance in graduate quality, while the remaining 23.4% was explained by other factors outside the research model. This study contributes by proposing an integrated model that combines managerial, professional, and behavioral factors in explaining graduate quality at the elementary school level. The findings highlight the importance of strengthening principal leadership, improving teacher performance, and developing teacher discipline as strategic efforts to enhance educational quality.

INTRODUCTION

Improving the quality of education is one of the strategic agendas in human resource development. As educational institutions, schools are responsible for producing graduates who possess not only academic competencies but also strong character, critical thinking skills, adaptability, and readiness to respond to global changes. Graduate quality is an important indicator of the success of educational provision because it reflects the quality of the learning process, the effectiveness of school management, and the capacity of all educational components to achieve educational objectives. Studies on school effectiveness indicate that student achievement is influenced not only by individual factors but also by the quality of school leadership, teacher capacity, and the organizational environment of educational institutions (Grissom et al., 2021; Leithwood et al., 2021).

One of the major factors contributing to improved graduate quality is principal leadership. Principals occupy a strategic position as educational leaders who are responsible for determining school policies and directions, fostering a culture of quality, conducting academic supervision, and developing teacher professionalism. Research on *instructional leadership* has demonstrated that principal leadership is an important factor in enhancing school effectiveness (Hallinger et al., 2020). Effective principals function not merely as administrators but also as instructional leaders who are capable of directing organizational change and improving the quality of teaching and learning.

Various studies have demonstrated that principal leadership is associated with teacher performance and student achievement. Dutta and Sahney (2022) found that principals' instructional leadership was associated with school climate, teacher performance, and student achievement. Shen et al. (2021) likewise demonstrated that improvements in the quality of principal leadership were associated with enhanced school performance from teachers' perspectives. Furthermore, Gümüő (2022), Rigby et al. (2022), and Cox and Mullen (2023) explained that principals' instructional leadership practices contribute to improvements in teaching quality and student achievement. Sun and Leithwood (2021) also emphasized that transformational school leadership influences students' academic outcomes through organizational change and the enhancement of school capacity.

In addition to principal leadership, teacher performance is an important factor in determining graduate quality. Teachers are a central component of the educational process because they are directly involved in designing, implementing, and evaluating learning activities. Optimal teacher performance contributes to high-quality learning processes, which in turn can enhance students' competencies. Thoonen et al. (2021) explained that improvements in teachers' instructional practices are influenced by professional motivation and continuous competency development. Consistent with this view, Admiraal et al. (2021) stated that professional learning communities can serve as a strategy for supporting teacher learning and improving teaching quality.

The relationship between principal leadership and teacher performance has also been demonstrated in various studies. Liu et al. (2021) showed that instructional and distributed leadership influence teachers' self-efficacy and job satisfaction. Pardosi and Utari (2022) found that effective principal leadership behaviors can improve teacher performance and student achievement. Meanwhile, Kılınç et al. (2021) explained that transformational leadership is associated with various positive teacher outcomes, including organizational commitment and professional behavior. Berkovich and Eyal (2022) further demonstrated that leadership styles are associated with teachers' organizational commitment through the mediating role of trust within school organizations.

In addition to teacher performance, teacher discipline is another important factor contributing to educational quality. Teachers' work discipline reflects professional responsibility, compliance with organizational regulations, and consistency in carrying out instructional duties. Teachers with a high level of discipline are more capable of implementing instruction according to established plans, conducting learning assessments, and serving as positive role models for students. Nuraida Astining Putri et al. (2019) demonstrated that teacher discipline, personality competence, and principal supervision are associated with improvements in teacher performance. In addition, Lusiana et al. (2026) found that teacher professionalism and work discipline influence the quality of graduates in elementary schools.

Problems related to graduate quality are still evident in public elementary schools in Pabelan District, Semarang Regency. Based on preliminary observations conducted in 21 public elementary schools in Pabelan District, variations were found in the achievements reported in the *Rapor Pendidikan* (Education Report) across literacy, numeracy, and character indicators during the 2023–2025 period. Several schools experienced declines in particular indicators, indicating the need for quality improvement strategies through the strengthening of school management and human resources. In addition, data from teachers' educational reports indicated that some schools continued to demonstrate suboptimal achievement in learning quality, teachers' reflection and improvement of instructional practices, and instructional leadership. Problems related to teacher discipline were also identified, as indicated by delays in completing instructional documents, suboptimal utilization of instructional time, tardiness, and inconsistent implementation of professional duties.

Previous studies have made important contributions to explaining the relationships among school leadership, teacher performance, and educational quality. Nurabadi et al. (2021) demonstrated that principals' instructional, transformational, and spiritual leadership influenced teacher performance and student achievement in elementary schools. Wahyuni et al. (2025) explained that school quality transformation is associated with the roles of leadership, supervision, and teacher performance. Pujiyati (2018) also found that principal competence and learning management influence graduate quality.

Although numerous studies have examined principal leadership, teacher performance, and teacher discipline, most have focused on the relationships among these variables separately. Research integrating these three factors simultaneously to explain graduate quality, particularly in the context of public elementary schools within a specific geographical area, remains relatively limited. Therefore, this study offers novelty by developing an empirical model that simultaneously examines the effects of principal leadership, teacher performance, and teacher discipline on graduate quality. The study provides a theoretical contribution to the development of educational management research and a practical contribution to principals, school supervisors, and educational policymakers in designing strategies to improve the quality of elementary school graduates. Based on the foregoing discussion, this study aims to analyze the effects of principal leadership, teacher performance, and teacher discipline on the quality of graduates of public elementary schools in Pabelan District, Semarang Regency.

RESEARCH METHODOLOGY

This study employed a quantitative approach using a correlational research method. The quantitative approach was used to examine the relationships and effects among the variables based on numerical data obtained through research instruments. The study adopted an *ex post facto* design, which is a research design used to examine the effects of independent variables on a dependent variable based on phenomena that have already occurred, without providing any treatment or intervention to the research subjects (Sugiyono, 2019). The study aimed to analyze the effects of principal leadership, teacher performance, and teacher discipline on the quality of graduates of public elementary schools in Pabelan District, Semarang Regency.

The study was conducted in public elementary schools throughout Pabelan District, Semarang Regency. The research population consisted of all teachers in public elementary schools in Pabelan District, distributed across 21 schools, with a total population of 186 teachers. The sample size was determined using Slovin's formula with a 5% margin of error, resulting in a sample of 128 teachers. The sampling technique employed was *simple random sampling*, in which members of the population were selected randomly without considering any strata within the population.

The study comprised three independent variables and one dependent variable. The independent variables were principal leadership (X1), teacher performance (X2), and teacher discipline (X3), while the dependent variable was graduate quality (Y). Principal leadership was measured using indicators reflecting the principal's roles as an educator, manager, administrator, supervisor, innovator, and motivator. Teacher performance was measured based on lesson planning, instructional implementation, and evaluation of learning outcomes. Teacher discipline was measured using indicators of time discipline, behavioral discipline, and work-ethics discipline. Meanwhile, graduate quality was measured based on attitudes, knowledge, and skills competencies.

Data were collected using a structured closed-ended questionnaire based on measurement indicators for each research variable. Before being administered to the research sample, the research instrument was subjected to validity and reliability testing. The validity test was conducted to determine the instrument's ability to measure the intended research variables, whereas the reliability test was conducted to assess the consistency of the instrument. The results indicated that the research instrument met the validity criteria based on a comparison between the calculated r values and the critical r value of 0.349. In addition, the reliability test showed that the Cronbach's Alpha values for all variables exceeded 0.60, indicating that the instruments were reliable. The reliability coefficients were 0.976 for principal leadership, 0.939 for teacher performance, 0.938 for teacher discipline, and 0.746 for graduate quality.

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS). Descriptive analysis was used to describe the characteristics of the research data through the mean, standard deviation, minimum and maximum values, and frequency distributions for each variable. Quantitative analysis was subsequently conducted through tests of the assumptions required for regression analysis, including normality, multicollinearity, and heteroscedasticity tests. Multicollinearity was assessed using the *Tolerance* and *Variance Inflation Factor* (VIF) values, while heteroscedasticity was examined using the Glejser test. The normality test was conducted to determine whether the regression residuals followed an approximately normal distribution.

Hypothesis testing was conducted using multiple linear regression analysis to examine the effects of principal leadership, teacher performance, and teacher discipline on graduate quality. The regression model was formulated as follows: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$, where Y represents graduate quality; X_1 represents principal leadership; X_2 represents teacher performance; X_3 represents teacher discipline; β represents the regression coefficients; and e represents the error term. Hypotheses were tested using the F -test to determine the simultaneous effect of the independent variables, the t -test to determine the partial effect of each independent variable, and the coefficient of determination (R^2) to determine the proportion of variance in the dependent variable explained by the independent variables.

RESULT AND DISCUSSION

Result

This study involved 128 teachers from public elementary schools in Pabelan District, Semarang Regency, as respondents. The research data were collected through questionnaires measuring four research variables: principal leadership (X_1), teacher performance (X_2), teacher discipline (X_3), and graduate quality (Y). Descriptive analysis was conducted to provide an overview of the general condition of each variable based on the respondents' perceptions.

The descriptive analysis showed that the graduate quality variable had a mean score of 174.88, with a standard deviation of 14.569, a minimum score of 125, and a maximum score of 200. Based on the category distribution, graduate quality was classified as very high for 48

respondents (37.500%), high for 20 respondents (15.625%), moderate for 54 respondents (42.188%), low for 5 respondents (3.906%), and very low for 1 respondent (0.781%). Based on the mean score, the quality of graduates from public elementary schools in Pabelan District, Semarang Regency, was categorized as high.

The principal leadership variable had a mean score of 234.41, with a standard deviation of 12.284, a minimum score of 207, and a maximum score of 265. The distribution indicated that teachers' perceptions of principal leadership were classified as very high for 9 respondents (7.031%), high for 28 respondents (21.875%), moderate for 48 respondents (37.500%), low for 31 respondents (24.219%), and very low for 12 respondents (9.375%). Based on the mean score, principal leadership was categorized as moderate.

The teacher performance variable had a mean score of 112.39, with a standard deviation of 9.735, a minimum score of 92, and a maximum score of 130. The category distribution showed that teacher performance was classified as very low for 14 respondents (10.938%), low for 35 respondents (27.344%), moderate for 27 respondents (21.094%), high for 29 respondents (22.656%), and very high for 23 respondents (17.969%). Thus, teacher performance was categorized as moderate.

The teacher discipline variable had a mean score of 161.48, with a standard deviation of 15.285, a minimum score of 118, and a maximum score of 188. Based on the category distribution, teacher discipline was classified as very low for 5 respondents (3.906%), low for 13 respondents (10.156%), moderate for 44 respondents (34.375%), high for 41 respondents (32.031%), and very high for 25 respondents (19.531%). Based on the mean score, teacher discipline was categorized as high.

Before hypothesis testing was conducted, the study performed tests of the assumptions required for regression analysis, including normality, multicollinearity, and heteroscedasticity tests. The normality test showed a significance value of 0.200 (>0.05). Therefore, the regression residuals were considered normally distributed, indicating that the normality assumption for regression analysis was satisfied. The multicollinearity test showed that all independent variables had *Tolerance* values greater than 0.10 and *Variance Inflation Factor* (VIF) values below 10. These results indicate that there was no multicollinearity problem among the independent variables in the regression model. Furthermore, the heteroscedasticity test based on the scatterplot showed that the residuals were randomly distributed above and below zero on the Y-axis. Thus, there was no indication of heteroscedasticity in the regression model, and the model was considered suitable for hypothesis testing.

Hypothesis testing was conducted using multiple linear regression analysis to examine the effects of principal leadership, teacher performance, and teacher discipline on graduate quality. The resulting regression equation was: $Y = 9.398 + 0.190 X_1 + 0.360 X_2 + 0.499 X_3 + e$. The regression equation indicates that all independent variables had positive regression coefficients, suggesting positive relationships with graduate quality. This means that better principal leadership, higher

teacher performance, and stronger teacher discipline are associated with higher graduate quality. Among the three independent variables, teacher discipline had the largest regression coefficient and therefore showed the strongest contribution within the regression model.

Table 1. Results of Multiple Linear Regression Analysis and Hypothesis Testing

Hypothesis	Effect of Variable	Regression Coefficient (B)	t-value	Sig.	Decision
H1	Principal Leadership (X1) → Graduate Quality (Y)	0.190	2.160	0.033	Accepted
H2	Teacher Performance (X2) → Graduate Quality (Y)	0.360	2.341	0.021	Accepted
H3	Teacher Discipline (X3) → Graduate Quality (Y)	0.499	6.091	0.000	Accepted

Source: Primary data processed by the researchers, 2026.

Based on the partial significance test (*t*-test), principal leadership had a positive and significant effect on graduate quality, with a *t*-value of 2.160 and a significance value of 0.033 (<0.05). Therefore, H1, which states that principal leadership has a significant effect on graduate quality, was accepted. Teacher performance also had a positive and significant effect on graduate quality, as indicated by a *t*-value of 2.341 and a significance value of 0.021 (<0.05). This finding indicates that improvements in teacher performance contribute to higher graduate quality. Therefore, H2 was accepted.

Furthermore, teacher discipline demonstrated the strongest effect on graduate quality, with a *t*-value of 6.091 and a significance value of 0.000 (<0.05). This finding indicates that teacher discipline is an important factor in improving graduate quality. Therefore, H3 was accepted. In addition to the partial significance tests, a simultaneous significance test (*F*-test) was conducted to determine whether the three independent variables jointly affected graduate quality. The results of the *F*-test indicated that the regression model met the criteria for model significance, demonstrating that principal leadership, teacher performance, and teacher discipline jointly had a significant effect on graduate quality.

The coefficient of determination (R^2) was further analyzed to determine the contribution of principal leadership, teacher performance, and teacher discipline to graduate quality. The results are presented in Table 2.

Table 2. Coefficient of Determination of the Research Model

Predictor Variables	R	R Square (R ²)	Explained Variance	Unexplained Variance
Principal Leadership (X1), Teacher Performance (X2), and Teacher Discipline (X3) → Graduate Quality (Y)	0.864	0.746	74.6%	23.4%

Source: Primary data processed by the researchers, 2026.

The coefficient of determination analysis yielded an R Square value of 0.746, indicating that principal leadership, teacher performance, and teacher discipline jointly explained 74.6% of the variance in graduate quality. The remaining 23.4% was attributable to other factors outside the research model. The R value of 0.864 also indicates a strong overall relationship between the predictor variables and graduate quality. Based on the hypothesis testing results, all research hypotheses were accepted. Principal leadership, teacher performance, and teacher discipline were found to have positive and significant effects on graduate quality, both individually and jointly, among public elementary schools in Pabelan District, Semarang Regency.

Discussion

The Effect of Principal Leadership on Graduate Quality

The results showed that principal leadership had a positive and significant effect on the quality of graduates from public elementary schools in Pabelan District, Semarang Regency. This finding indicates that the more effectively principals perform their managerial, supervisory, and instructional leadership functions, the higher the quality of graduates produced by schools. Principals play an important role in establishing the direction of school development, fostering a culture of quality, and ensuring that all school resources are utilized optimally to support the achievement of educational objectives.

This finding is consistent with the concept of effective school leadership proposed by Leithwood et al. (2021), who argued that school success is strongly influenced by leaders' ability to build organizational capacity, develop teacher professionalism, and create conditions that support learning. Grissom et al. (2021) similarly explained that principals influence student learning outcomes through mechanisms such as improving teaching quality, managing human resources, and creating a positive school climate. The findings also reinforce the study by Dutta and Sahney (2022), which demonstrated that principals' instructional leadership is associated with teacher performance and student achievement through its influence on school climate. Principal leadership does not directly produce high-quality graduates; rather, its effects operate through various processes, including strengthening instructional quality, providing academic direction, and increasing teacher engagement. This mechanism is relevant to the context of public

elementary schools in Pabelan District, where principals occupy a strategic position in directing efforts to improve instructional quality and overall school performance.

Furthermore, Shen et al. (2021) demonstrated that improvements in the quality of principal leadership are associated with enhanced school performance from teachers' perspectives. Gümüş (2022) also emphasized that instructional leadership plays an important role in reducing disparities in student achievement by strengthening instructional practices. Therefore, the present findings provide further empirical evidence that principal leadership is an important factor in improving graduate quality.

The Effect of Teacher Performance on Graduate Quality

The results demonstrated that teacher performance had a positive and significant effect on graduate quality. This finding indicates that graduate quality is influenced not only by school policies but also substantially by the quality of instructional processes implemented by teachers. Teachers with strong performance are better able to design instruction, implement teaching and learning activities, assess learning outcomes, and continuously improve their instructional practices.

This finding supports Thoonen et al. (2021), who explained that improvements in teachers' instructional practices are influenced by professional motivation and continuous competency development. Teachers with strong professional competencies are more capable of creating meaningful learning experiences that contribute to the development of students' competencies. The finding is also consistent with Admiraal et al. (2021), who stated that professional learning communities contribute to teacher learning through collaboration, reflection, and the development of instructional practices. This suggests that improving graduate quality requires teachers not only to fulfill their teaching responsibilities but also to engage in continuous learning and professional development.

The relationship between teacher performance and student achievement is further supported by Pardosi and Utari (2022), who found that teacher performance influences student achievement. Similarly, Nurabadi et al. (2021), in the context of elementary schools, demonstrated that school leadership and teacher performance contribute to student achievement. Thus, the present findings reinforce the view that teachers are a key factor in producing high-quality graduates.

The Effect of Teacher Discipline on Graduate Quality

The results showed that teacher discipline had a positive and significant effect on graduate quality. Furthermore, based on the regression coefficient, teacher discipline had the strongest effect among the independent variables examined in this study. This finding indicates that schools' success in improving graduate quality is strongly influenced by teachers' consistency in fulfilling their professional responsibilities.

Teacher discipline is not limited to compliance with administrative regulations but also reflects professional commitment to carrying out educational responsibilities. Teachers with high levels of discipline tend to be more consistent in preparing instructional materials, attending school on time, implementing instruction according to established plans, and conducting continuous assessment and instructional improvement. This finding is consistent with Nuraida Astining Putri et al. (2019), who demonstrated that teacher discipline and principal supervision are associated with improvements in teacher performance. Discipline is an important factor in establishing a professional work culture within school organizations. In addition, Lusiana et al. (2026) found that teacher professionalism and work discipline influence the quality of graduates in elementary schools.

These findings indicate that improving graduate quality requires not only effective school leadership and competent teachers but also a strong culture of discipline. Therefore, strengthening teacher discipline should be an integral component of school management strategies aimed at improving the quality of educational services.

The Simultaneous Effect of Principal Leadership, Teacher Performance, and Teacher Discipline on Graduate Quality

The results demonstrated that principal leadership, teacher performance, and teacher discipline simultaneously had a positive and significant effect on graduate quality, with the model explaining 74.6% of the variance in graduate quality. This finding indicates that graduate quality is the result of the interaction of multiple factors within the educational system rather than being determined by a single factor. The substantial explanatory contribution of the research model indicates that the combination of leadership, human resource quality, and teachers' work culture constitutes an important foundation for improving school quality. Principals function as leaders who provide direction and drive organizational change, teachers serve as the primary actors in the instructional process, while discipline helps maintain consistency in the implementation of educational responsibilities.

This finding reinforces the study by Wahyuni et al. (2025), which stated that school quality transformation is closely associated with leadership, supervision, and teacher performance. Pujiyati (2018) similarly demonstrated that principal competence and learning management influence graduate quality. Furthermore, Berkovich and Eyal (2022) showed that leadership styles are associated with teachers' organizational commitment through the role of trust within school organizations. This finding suggests that improving school quality also requires strong organizational relationships between principals and teachers. Effective leadership, therefore, needs to be accompanied by mutual trust, professional collaboration, and a supportive organizational climate.

Overall, the findings strengthen the *state of the art* by demonstrating that improving the quality of elementary school graduates requires a comprehensive educational management

approach. Whereas previous studies have largely examined relationships among these variables separately, the present study demonstrates that principal leadership, teacher performance, and teacher discipline jointly make a substantial contribution to graduate quality. Accordingly, strategies for improving the quality of elementary education should focus on strengthening principal leadership, promoting continuous teacher professional development, and establishing a strong culture of work discipline.

CONCLUSION

Based on the findings of this study on the effects of principal leadership, teacher performance, and teacher discipline on the quality of graduates from public elementary schools in Pabelan District, Semarang Regency, it can be concluded that principal leadership, teacher performance, and teacher discipline each have a positive and significant effect on graduate quality, both partially and simultaneously. Principal leadership contributes to improving graduate quality through the strategic role of principals in directing educational policies, conducting academic supervision, developing teacher professionalism, and fostering a school culture oriented toward quality improvement. Teacher performance is also an important factor in improving graduate quality through the quality of lesson planning, instructional implementation, and learning evaluation. In addition, teacher discipline emerged as the most dominant factor in this study, indicating that teachers' consistency in fulfilling their professional responsibilities, maintaining punctuality, and complying with educational duties makes a substantial contribution to the achievement of graduate quality.

Simultaneously, principal leadership, teacher performance, and teacher discipline explained 74.6% of the variance in graduate quality, while the remaining 25.4% was attributable to factors outside the research model. This finding indicates that improving the quality of elementary school graduates cannot be achieved through a single aspect alone but requires synergy among school leadership as a driver of change, teachers as the primary implementers of instruction, and work discipline as a foundation for sustaining the educational process.

The novelty of this study lies in the development of an empirical model that integrates three key factors in educational management: the managerial factor represented by principal leadership, the professional factor represented by teacher performance, and the organizational behavioral factor represented by teacher discipline, to explain graduate quality simultaneously. Unlike previous studies that have predominantly examined relationships among these variables separately, this study contributes by demonstrating that the combination of principal leadership, teacher performance, and teacher discipline has a strong contribution to graduate quality in the context of public elementary schools in Pabelan District, Semarang Regency. These findings extend the field of educational management by providing empirical evidence that improving graduate quality requires an integrated approach encompassing leadership, human resource quality, and school work culture.

Nevertheless, this study has several limitations. First, the research was conducted only in public elementary schools in Pabelan District, Semarang Regency; therefore, the generalizability of the findings remains limited to the characteristics of the study area and population. Second, the research variables were measured using questionnaire instruments based on respondents' perceptions, which may introduce subjectivity in their responses. Third, this study examined only three major factors influencing graduate quality, whereas other factors may also contribute, including school culture, educational facilities and infrastructure, teacher work motivation, parental involvement, and educational policies.

Based on these limitations, future research is recommended to expand the geographical scope of the study, include different levels of education, employ a mixed-methods approach combining quantitative and qualitative data, and incorporate additional relevant variables. Such efforts would provide a more comprehensive understanding of the factors influencing the quality of elementary school graduates.

REFERENCES

- Admiraal, W., Schenke, W., De Jong, L., Emmelot, Y., & Sligte, H. (2021). Schools as professional learning communities: What can schools do to support teacher learning? *Professional Development in Education*, 47(4), 684–698. <https://doi.org/10.1080/19415257.2020.1787204>
- Berkovich, I., & Eyal, O. (2022). Leadership styles and teachers' organizational commitment: The mediating role of trust. *Educational Management Administration & Leadership*, 50(2), 261–280. <https://doi.org/10.1177/1741143220920930>
- Cox, J. S., & Mullen, C. A. (2023). Impacting student achievement: Principals' instructional leadership practice in two Title I rural schools. *Journal of School Leadership*, 33(1), 75–99. <https://doi.org/10.1177/10526846221133996>
- Dutta, V., & Sahney, S. (2022). Relation of principal instructional leadership, school climate, teacher job performance and student achievement. *Journal of Educational Administration*, 60(2), 148–166. <https://doi.org/10.1108/JEA-01-2021-0010>
- Grissom, J. A., Egalite, A. J., & Lindsay, C. A. (2021). *How principals affect students and schools: A systematic synthesis of two decades of research*. Wallace Foundation. <https://doi.org/10.59656/EL-SB9055.001>
- Gümüş, S. (2022). School leadership and achievement gaps based on socioeconomic status: A search for socially just instructional leadership. *Journal of Educational Administration*, 60(4), 419–438. <https://doi.org/10.1108/JEA-11-2021-0213>
- Hallinger, P., Gümüş, S., & Bellibaş, M. Ş. (2020). Are principals instructional leaders yet? A science map of the knowledge base on instructional leadership. *Scientometrics*, 122, 1629–1650. <https://doi.org/10.1007/s11192-020-03360-5>
- Kılınç, A. Ç., Polatcan, M., Savaş, G., & Er, E. (2021). How does leadership matter? The relationship between transformational leadership and teacher outcomes. *Educational*

- Management Administration & Leadership*, 49(5), 746-765.
<https://doi.org/10.1177/1741143220915928>
- Leithwood, K., Harris, A., & Hopkins, D. (2021). Seven strong claims about successful school leadership revisited. *School Leadership & Management*, 41(1-2), 5-22.
<https://doi.org/10.1080/13632434.2020.1811479>
- Liu, Y., Bellibaş, M. Ş., & Gümüş, S. (2021). The effect of instructional leadership and distributed leadership on teacher self-efficacy and job satisfaction. *Educational Management Administration & Leadership*, 49(6), 1001-1019. <https://doi.org/10.1177/1741143220910438>
- Lusiana, L., Mu'in, J. A., Siswoyo, S., & Adiputra, S. (2026). Pengaruh profesionalisme dan disiplin kerja guru terhadap mutu lulusan di sekolah dasar. *Paedagogie*, 21(1), 127-134.
<https://doi.org/10.31603/paedagogie.v21i1.15896>
- Nuraida Astining Putri, H., Seri, H., & Sakdiahwati. (2019). Pengaruh disiplin, kompetensi kepribadian dan supervisi kepala sekolah terhadap kinerja guru SMP Negeri di Palembang. *Jurnal Ilmu Manajemen*, 8(2), 1-12. <https://doi.org/10.32502/jimn.v8i2.1823>
- Nurabadi, A., Irianto, J., Bafadal, I., Juharyanto, Gunawan, I., & Adha, M. A. (2021). The effect of instructional, transformational, and spiritual leadership on elementary school teachers' performance and students' achievements. *Jurnal Cakrawala Pendidikan*, 40(1), 94-107.
<https://doi.org/10.21831/cp.v40i1.35641>
- Pardosi, J., & Utari, T. I. (2022). Effective principal leadership behaviors to improve the teacher performance and the student achievement. *F1000Research*, 10, 465.
<https://doi.org/10.12688/f1000research.51549.2>
- Pujiyati, W. (2018). Pengaruh kompetensi kepala sekolah dan manajemen pembelajaran terhadap mutu lulusan siswa sekolah menengah pertama. *Gema Wiralodra*, 9(1), 87-94.
<https://doi.org/10.31943/gemawiralodra.v9i1.65>
- Rigby, J. G., Forman, S., & Lewis, R. (2022). Principals' sensemaking and instructional leadership practice in improving teaching quality. *Educational Administration Quarterly*, 58(4), 657-691. <https://doi.org/10.1177/0013161X221086504>
- Shen, J., Ma, X., Mansberger, N., Wu, H., Palmer, L. A. B., Poppink, S., & Reeves, P. L. (2021). The relationship between growth in principal leadership and growth in school performance: The teacher perspective. *Studies in Educational Evaluation*, 70, 101023.
<https://doi.org/10.1016/j.stueduc.2021.101023>
- Sun, J., & Leithwood, K. (2021). Transformational school leadership effects on student achievement. *Educational Administration Quarterly*, 57(3), 403-432.
<https://doi.org/10.1177/0013161X20976510>
- Thoonen, E. E. J., Sleegers, P. J. C., Oort, F. J., Peetsma, T. T. D., & Geijsel, F. P. (2021). How to improve teaching practices: The role of teacher motivation and professional learning. *Educational Administration Quarterly*, 57(1), 67-104.
<https://doi.org/10.1177/0013161X20912918>

Wahyuni, S., Supriyanto, A., & Sunarni, S. (2025). Transformasi mutu sekolah menengah atas: Peran kepemimpinan, kepengawasan, dan kinerja guru. *Ideguru: Jurnal Karya Ilmiah Guru*, 10(3), 2515–2523. <https://doi.org/10.51169/ideguru.v10i3.2192>