

The Influence of School Infrastructure and Principal Managerial Ability on The Performance of Public Elementary School Teachers in Sembawa District

Doni Oktareza¹, Bukman Lian², Dessy Wardiah³

¹SD Negeri 1 Sembawa, ²Universitas PGRI Palembang

artikeldonioktareza@gmail.com

Article History: Received on June 9, 2026, Revised on June 27, 2026, Published on June 28, 2026

Abstract: This study aimed to analyze the influence of school infrastructure and principal managerial ability on teacher performance at public elementary schools in Sembawa District. A quantitative explanatory survey was conducted involving 162 teachers selected through proportional random sampling from a population of 271 teachers across 25 schools. Data were collected using validated and reliable questionnaires and analyzed using multiple regression analysis. The results showed that school infrastructure and principal managerial ability simultaneously had a positive and significant effect on teacher performance, with a contribution of 29.6% ($R^2 = 0.296$). Both variables also had significant partial effects on teacher performance. The findings indicate that improving educational facilities and strengthening principals' managerial competencies are important strategies for enhancing teacher performance and educational quality.

Keywords: *Principal's Managerial Ability, Teacher Performance, Public Elementary Schools, Educational Management*

A. Introduction

Education is a key factor in developing quality human resources. The success of an education system is largely determined by the quality of the learning process taking place in schools. In this context, teachers play a strategic role as the primary implementers of learning activities, interacting directly with students. Therefore, teacher performance is a crucial indicator in determining the quality of education in a school (Huda, 2022).

Teacher performance is the work achieved by teachers in carrying out their duties and responsibilities as educators, which include lesson planning, lesson implementation, and evaluation of student learning outcomes (Indriawati et al., 2022). High-performing teachers are able to create effective, innovative learning processes that are oriented toward achieving educational goals. Conversely, low teacher performance can impact the quality of learning and student learning outcomes. Unlike previous studies that focused on infrastructure or managerial ability separately, this study simultaneously examines

both variables at the elementary school level in Sembawa District, where school characteristics differ from urban and secondary school contexts.

Various factors can influence teacher performance, both internal and external. Internal factors include competence, motivation, commitment, and work discipline, while external factors include the principal's leadership, organizational culture, the work environment, and the availability of educational facilities and infrastructure (Oupen et al., 2020). Among these factors, school infrastructure and the principal's managerial skills are two crucial factors in supporting improved teacher performance.

Educational facilities and infrastructure encompass all facilities used to support the learning process, both directly and indirectly. The availability of adequate classrooms, libraries, laboratories, learning media, information technology devices, and other supporting facilities can help teachers carry out their duties more effectively and efficiently (Barnawi & M. Arifin, 2012). Schools with adequate infrastructure tend to create a conducive learning environment, enabling teachers to develop creativity and innovation in teaching (Bafadal, 2014).

In addition to infrastructure, the principal's managerial skills are also crucial in improving teacher performance. The principal is responsible for planning, organizing, directing, and supervising all educational activities at the school. Strong managerial skills enable the principal to manage resources effectively, build a positive work culture, and encourage teachers to improve their professionalism (Komariah & Triatna, 2021). A principal who has high managerial competence will be able to create a productive work environment and support continuous improvement in the quality of education (Mulyono, 2017).

In the current era of educational transformation and technological advancement, demands on principals' managerial skills are increasing. Principals are not only required to be able to perform administrative functions, but also to lead change, develop innovation, and optimize the use of technology in learning (Khairunnisa et al., 2025). These skills are crucial factors in increasing teacher motivation and the overall quality of educational services (Aluan, 2025).

Various previous studies have demonstrated a relationship between principals' managerial skills, infrastructure, and teacher performance. Research by (Lasmi et al., 2025) showed that principals' managerial skills positively influenced teacher performance in public elementary schools in Banyuasin Regency. The results showed that the principals' planning, organizing, implementing, and supervising aspects improved teacher discipline and creativity in teaching.

Research (Ihsan & Anisa, 2025) also found that principals' managerial competencies significantly influenced teacher performance, particularly in lesson planning, lesson implementation, and evaluation of learning outcomes. Furthermore, (Handayani et al., 2025) reported that principals' managerial competence contributed 26.8% to improved teacher performance in public elementary schools.

Research by (Andriani, 2025) showed that good infrastructure management has a positive and significant impact on teacher performance by creating a conducive learning

environment. Similar findings were also presented by Yuniarti and Walajro (2024), who stated that school infrastructure significantly influenced teacher performance in vocational high schools in Palembang City. Furthermore, Purba et al. (2024) emphasized that effective management of educational resources and facilities can improve the quality of the learning process and teacher productivity.

Internationally, Hoy and Miskel (2010) explain that the effectiveness of school organizations is significantly influenced by the quality of leadership and the availability of educational resources. (Hayes et al., 2022) highlight the importance of the principal's role in developing teacher talent through strategic management. Meanwhile, Navaridas-Nalda et al. (2020) found that adaptive school leadership supported by adequate facilities is a crucial factor in maintaining learning quality during times of change and uncertainty. Soraya et al., (2025) also stated that a work environment supported by effective leadership and adequate facilities can improve teacher retention and performance.

Although various studies have examined the influence of infrastructure and principal managerial skills on teacher performance, most studies have examined these two variables separately. Furthermore, research examining the influence of both variables simultaneously at the elementary school level, particularly in Sembawa District, is still very limited. Most previous research was conducted at the secondary school level or in urban areas, which have different characteristics than elementary schools in Sembawa District.

Based on these conditions, there is a research gap that requires further study. There are not many studies that simultaneously analyze the influence of school infrastructure and principal managerial skills on teacher performance in Public Elementary Schools in Sembawa District. Therefore, this study aims to analyze the influence of school infrastructure and principal managerial skills on teacher performance, both partially and simultaneously. The results of this study are expected to provide theoretical contributions to the development of educational management science and serve as a consideration for policymakers in efforts to improve the quality of basic education.

B. Methods

1. Research Design

This study used a quantitative approach with an explanatory survey method. The quantitative approach was chosen because the study aimed to examine the influence of school infrastructure and principal managerial skills on teacher performance through numerical data analysis. This research is a correlational study that focuses on the relationships and influences between the variables studied. Before data collection, the questionnaire was tested for validity and reliability. Item validity was examined using Pearson product-moment correlation, while reliability was tested using Cronbach's Alpha. All items met the validity criteria ($r > 0.30$), and the reliability coefficients for all variables exceeded 0.70, indicating that the instrument was reliable.

The independent variables in this study consisted of school infrastructure (X_1) and principal managerial skills (X_2), while the dependent variable was teacher performance (Y).

2. Research Location and Timeline

The research was conducted at a public elementary school in Sembawa District, Banyuasin Regency, South Sumatra. Data collection was conducted during 2025 after obtaining research permits from the relevant agencies and the schools serving as the research locations.

3. Population and Sample

The research population consisted of all 271 public elementary school teachers in Sembawa District. The research sample was determined using a proportional random sampling technique so that all members of the population had an equal opportunity to become respondents.

Based on the sample size calculations used in the study, the number of respondents was set at 162 teachers. This technique was chosen to obtain a representative sample capable of describing the overall population.

4. Data Collection Techniques

Data collection was conducted using several techniques, namely:

a. Questionnaire:

Questionnaires are used as the primary instrument for collecting data on school facilities and infrastructure, principal managerial skills, and teacher performance. A questionnaire is a method of data collection that provides a list of questions or statements in the form of a questionnaire to be filled out by respondents according to the needs of each research variable (Byhaqi et al., 2023). Instructions or guidelines for filling out the questionnaire are provided so that respondents can fill in their answers according to the instructions and directions given by the researcher (I Made Dwi Mertha Adnyana, 2003). Sugiyono explains that a questionnaire is a data collection technique that involves providing a set of written questions or statements to be answered by respondents (Sugiyono, 2018).

b. Observations

Observations are conducted to obtain information regarding the condition of school facilities and infrastructure and activities that support the learning process. Observation is a method of collecting data through direct observation of the research object being observed by the researcher (Kumar & Sharma, 2023). To obtain answers or information as needed for each variable, researchers should use the five senses, such as sight, smell, hearing, and touch (I Made Dwi Mertha Adnyana, 2003). Observations must be conducted carefully and systematically to obtain reliable results. These observations are conducted

to supplement information not obtained from questionnaire data collection (Jailani, 2023).

c. Dokumentasi

Documentation techniques were used to obtain supporting data such as school profiles, teacher numbers, and other documents related to the research. According to (Irawanto, 2021) documentation is a record of past events. This study used documentation techniques to collect data, referring to records of past events in the form of writing, drawings, or monumental works. The data collected came from various documents from public elementary schools in Sembawa District, such as attendance records, employee data, and other data relevant to the research objectives.

C. Results and Discussion

Research Results

Description of School Facilities and Infrastructure Variables

The descriptive analysis results indicate that school facilities and infrastructure at public elementary schools in Sembawa District are in the good category. Most schools have adequate classrooms, library facilities, learning media, and other supporting facilities to support the learning process. The availability of adequate facilities and infrastructure facilitates teachers in carrying out their teaching tasks effectively and efficiently.

Description of Principal Managerial Ability Variables

The results of the study indicate that principals' managerial abilities are in the good category. Principals are deemed capable of carrying out management functions including planning, organizing, implementing, supervising, and evaluating school programs. These abilities contribute to creating a conducive work environment and increasing teacher motivation in carrying out their professional duties.

Description of Teacher Performance Variables

Teacher performance at public elementary schools in Sembawa District is in the good category. Teachers have carried out their teaching tasks in accordance with the pedagogical, professional, social, and personality competencies stipulated in the national education standards. This can be seen from the teacher's ability to plan learning, implement the learning process, and evaluate student learning outcomes.

The Effect of School Facilities and Infrastructure on Teacher Performance

The analysis results indicate that school facilities and infrastructure have a positive and significant effect on teacher performance. The better the condition of school facilities and infrastructure, the higher the level of teacher performance in carrying out teaching and learning tasks. Adequate facilities enable teachers to develop more innovative learning

methods, increase learning effectiveness, and create a comfortable learning environment for students.

The Effect of Principal Managerial Skills on Teacher Performance

The results of the study indicate that the principal's managerial skills have a positive and significant effect on teacher performance. Principals with strong managerial skills are able to provide the direction, motivation, supervision, and support needed by teachers in carrying out their duties. This condition encourages increased teacher professionalism and the quality of the learning process.

The Effect of School Facilities and Infrastructure and Principal Managerial Skills on Teacher Performance

The results of the simultaneous analysis indicate that school facilities and infrastructure and the principal's managerial skills jointly have a positive and significant effect on teacher performance. These two variables contributed 29.6% to improving teacher performance, while the remainder was influenced by other factors not examined in this study, such as work motivation, work discipline, organizational culture, teacher competence, and work environment.

Discussion

The Influence of School Facilities and Infrastructure on Teacher Performance

Research findings indicate that school facilities and infrastructure have a significant impact on teacher performance. These results indicate that the availability of adequate learning facilities can help teachers carry out their duties optimally. Comfortable classrooms, complete learning media, and other supporting facilities enable teachers to develop more effective learning strategies. The significant effect of school infrastructure indicates that teacher performance is not solely determined by individual competence but is also shaped by the availability of instructional resources. Adequate facilities reduce instructional barriers and allow teachers to implement more varied and student-centered learning strategies.

The results of this study align with those of (Andriani, 2025) who found that infrastructure management and the availability of learning facilities positively impact teacher performance. Research by Yuniarti and Walajro (2024) also showed that school infrastructure significantly contributes to improving teacher performance. These findings support the theory of (Barnawi & M. Arifin, 2012) which states that educational facilities and infrastructure are crucial factors in supporting the success of the learning process.

Furthermore, Bafadal (2014) explains that adequate educational facilities can increase the effectiveness of the teaching and learning process and support the achievement of educational goals. Therefore, improving the quality of school facilities and infrastructure needs to be a primary focus in efforts to improve the quality of education.

The Influence of Principal Managerial Skills on Teacher Performance

The results of this study indicate that principal managerial skills have a positive and significant impact on teacher performance. This finding demonstrates that principals play a strategic role in directing, coaching, and developing teachers' skills so they can carry out their duties professionally.

These results align with research (Lasmi et al., 2025) which states that principal managerial skills can improve teacher discipline and creativity in the learning process. Research (Handayani et al., 2025) also found that principal managerial competency significantly contributes to improving teacher performance.

These findings support the theory of Komariah and Triatna (2021), which states that principal managerial skills encompass planning, organizing, implementing, and supervising, aimed at improving the effectiveness of the school organization. Principals with strong managerial skills will be able to create a positive work culture and encourage teachers to improve the quality of learning.

The Influence of School Facilities and Infrastructure and Principal Managerial Skills on Teacher Performance

The results of this study indicate that school facilities and principal managerial skills simultaneously have a significant impact on teacher performance. This finding suggests that improving teacher performance is influenced not only by physical factors such as educational facilities, but also by effective leadership.

These results reinforce the opinion of Hoy and Miskel (2010), who stated that the effectiveness of educational organizations is influenced by leadership quality and the availability of adequate resources. When school facilities are adequately provided and principals are able to manage them effectively, teachers will receive optimal support in carrying out their professional duties. The findings suggest that principals' managerial ability functions as organizational support that influences teacher motivation, coordination, and professional commitment. Effective managerial leadership creates conditions that enable teachers to perform their duties more optimally.

The findings also support the research of Purba et al. (2024), which shows that effective school resource management can increase teacher productivity. Furthermore, (Hayes et al., 2022) asserted that principals with strong managerial skills are able to develop teacher potential through planned and sustainable resource management.

Based on the research findings and relevant theory, it can be concluded that improving the quality of school facilities and infrastructure, supported by effective principal managerial skills, is a crucial factor in improving teacher performance. Therefore, the government, education department, and schools need to continue to improve educational facilities and develop the managerial competencies of school principals in order to improve the quality of education sustainably. The simultaneous effect of both variables

implies that educational quality improvement requires the integration of physical resource development and leadership capacity development. Infrastructure without effective leadership may not produce optimal performance, and vice versa.

D. Conclusions

This study aims to analyze the influence of school infrastructure and principal managerial skills on teacher performance at public elementary schools in Sembawa District. The results indicate that school infrastructure has a positive and significant impact on teacher performance. The availability of adequate learning facilities can support teachers in implementing the learning process more effectively and efficiently. This study concludes that school infrastructure and principal managerial ability are significant predictors of teacher performance in public elementary schools in Sembawa District. The findings emphasize that improving teacher performance requires both adequate educational facilities and effective managerial leadership. The combined contribution of these variables indicates that school quality improvement should integrate resource provision with leadership development programs.

Furthermore, the principal's managerial skills have also been shown to have a positive and significant impact on teacher performance. Principals who are able to effectively carry out the functions of planning, organizing, implementing, supervising, and evaluating can create a conducive work environment and enhance teacher professionalism.

Simultaneously, school infrastructure and the principal's managerial skills have a positive and significant impact on teacher performance. These findings indicate that improving the quality of education requires not only adequate facilities but also effective school leadership in managing all educational resources. Thus, the research objective has been achieved, namely to demonstrate the influence of school infrastructure and principal managerial skills on teacher performance, both partially and simultaneously, at public elementary schools in Sembawa District.

The results of this study are expected to be used as consideration for school principals, teachers, and educational policy makers in formulating strategies to improve the quality of education through strengthening school facilities and infrastructure and developing the managerial competencies of school principals.

E. Acknowledgement

The author would like to express his gratitude to all parties who provided support during the implementation of this research. He also expressed his gratitude to the Banyuasin Regency Education Office, the principals, and all teachers at public elementary schools in Sembawa District who participated as research respondents and provided necessary information during the data collection process.

The author also expresses his appreciation to his supervisors, academic colleagues, and all parties who provided input, direction, and support during the preparation of this

research. This support was instrumental in completing the research and writing this article.

This research received no specific funding from government agencies, commercial organizations, or non-profit organizations. The entire research process was conducted independently by the author.

References

- Aluan, J. C. Q. (2025). School heads' managerial skills for effective administration: Relationship to teachers' job performance in public elementary schools. *International Journal of Science and Research Archive*, 15(01), 565–583. <https://doi.org/10.30574/ijstra.2025.15.1.0991>
- Andriani, V. (2025). Pengaruh manajemen sarana prasarana dan ketersediaan sarana praktik terhadap kinerja guru. *Journal of Education, Cultural and Politics*, 5(3), 569–578.
- Bafadal, I. (2003). *Manajemen Peningkatan Mutu Sekolah Dasar, dari Sentralisasi menuju Desentralisasi*. Jakarta: Bumi Aksara.
- Barnawi, & M. Arifin. (2012). *Manajemen Sarana dan Prasarana Sekolah*. Ar-Ruzz Media.
- Byhaqi, M. M. R., Karyatun, S., & Digidowiseiso, K. (2023). The influence of brand image, price, and promotion on the purchasing decision of White Koffie civet coffee in the South Jakarta area. *Jurnal Syntax Admiration*, 4(5), 733–745.
- Handayani, T., Wardiah, D., & Rahman, A. (2025). Pengaruh Kompetensi Manajerial Dan Servant Leadership Terhadap Kinerja Guru Di Sekolah Dasar Negeri Sekecamatan Bukit Kecil Kota Palembang. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 10(03), 250–265.
- Hayes, S. D., Abdelrahman, N., Irby, B. J., & Nafukho, F. M. (2022). *Training School Principals as Talent Developers: An International Perspective*. IAP.
- Hoy, W. K., & Miskel, C. G. (2010). *Educational administration: Theory, research, and practice (9th ed.)*. McGraw-Hill.
- Huda, M. (2022). Analisis faktor kinerja guru untuk meningkatkan mutu pendidikan madrasah. *Islamic Management: Jurnal Manajemen Pendidikan Islam*, 5(01), 1–18.
- I Made Dwi Mertha Adnyana, D. (2003). *Metode Penelitian Pendekatan Kuantitatif Kualitatif* (Issue June). Publisher: CV. Media Sains Indonesia.
- Ihsan, M., & Anisa, M. N. (2025). Pengaruh Kompetensi Manajerial Kepala Sekolah terhadap Peningkatan Kinerja Guru MIS. Mathla'ul Anwar se-Desa Leuwibatu. *SCIENTIFIC JOURNAL OF REFLECTION: Economic, Accounting, Management and Business*, 8(4), 1574–1583.
- Indriawati, P., Maulida, N., Erni, D. N., & Putri, W. H. (2022). Kinerja guru dalam mutu pendidikan di SMAN 02 Balikpapan. *Jurnal Penelitian, Pendidikan Dan Pengajaran: JPPP*, 3(3), 204–215.
- Irawanto, Y. (2021). *Analisis Kesulitan Belajar Sejarah Peserta Didik Kelas X Ips 1 Pada Pembelajaran Daring Di Sma Negeri 1 Gunung Agung Tahun Pelajaran 2020/2021*. Universitas Muhammadiyah Metro.
- Jailani, M. S. (2023). Teknik pengumpulan data dan instrumen penelitian ilmiah pendidikan pada pendekatan kualitatif dan kuantitatif. *IHSAN: Jurnal Pendidikan Islam*, 1(2), 1–9.

- Khairunnisa, S., Fatayan, A., & Fetrimen, F. (2025). Analysis of Principals' Managerial Transformational Leadership: Teachers' Digital Literacy in Elementary Schools. *ETDC: Indonesian Journal of Research and Educational Review*, 4(4), 1692–1705.
- Komariah, A., & Triatna, C. (2021). *Manajemen pendidikan*. UMSU Press.
- Kumar, A., & Sharma, A. (2023). Observation method: A review study. *Library Philosophy and Practice (e-Journal)*, 7820, 1–14.
- Lasmi, L., Lian, B., & Eddy, S. (2025). Kemampuan Manajerial Kepala Sekolah dalam Meningkatkan Kinerja Guru di Sekolah Dasar Negeri 41 Plus Banyuasin: The Principal's Managerial Ability in Improving Teacher Performance at Public Elementary School 41 Plus Banyuasin. *Edu Cendikia: Jurnal Ilmiah Kependidikan*, 5(02), 666–674.
- Mulyono. (2017). *Administrative management & educational organization*. Ar-Ruzz Media.
- Navaridas-Nalda, F., Clavel-San Emeterio, M., Fernández-Ortiz, R., & Arias-Oliva, M. (2020). The strategic influence of school principal competence on teacher performance. *International Journal of Educational Leadership and Management*, 8(1), 57-81. <https://doi.org/10.17583/ijelm.2020.5197>
- Oupen, S. M., Agung, A. A. G., & Yudana, I. M. (2020). Kontribusi kepemimpinan transformasional, budaya organisasi, disiplin kerja, dan motivasi kerja, terhadap komitmen organisasional Guru SD. *Jurnal Administrasi Pendidikan Indonesia*, 11(1), 32–41.
- Purba, A. W. A., Situmeang, N. T. F. N., Fitriani, D., Febry, K., Sihombing, F., & Siregar, Y. R. (2024). *Problems of education financing in schools*. *Nizhamiyah*, 14(1), 64. <https://doi.org/10.30821/niz.v14i1.3239>
- Soraya, F., Yasykur, M., & Al Mufti, M. (2025). Pengaruh Kepemimpinan Transformasional dan Lingkungan Kerja Terhadap Retensi Guru di SD Islam Plus Imam Nawawi. *UNISAN JURNAL*, 4(9), 861–870.
- Sugiyono. (2018). *Metode Penelitian Manajemen*.
- Yuniarti, Y., & Walajro, J. (2024). Pengaruh kompetensi kepala sekolah dan sarana prasarana terhadap kinerja guru SMK negeri di Kota Palembang. *Atmosfer: Jurnal Pendidikan, Bahasa, Sastra, Seni, Budaya, dan Sosial Humaniora*, 2(1), 30-45. <https://pbsi-upr.id/index.php/atmosfer/article/view/959>