Journal of Educational Sciences
Journal homepage: https://jes.ejournal.unri.ac.id/index.php/JES

P-ISSN 2581-1657
E-ISSN 2581-2203

The Influence of Instructional Leadership and Data-Based Planning on School Quality: A Study of Public Elementary Schools in Gunem District Rembang Regency

Ummil Makarim Fibrianti*, Ngasbun Egar, Ghufron Abdullah
Manajemen Pendidikan, Universitas Persatuan Guru Republik Indonesia, Semarang, 50232, Indonesia

ARTICLE INFO

Article history:

Received: 08 Aug 2025
Revised: 15 Aug 2025
Accepted: 03 Sept 2025
Published online: 10 Sept 2025

Keywords:

Instructional Leadership,
Data-based planning,
School quality,
Elementary Education

* *Corresponding author:*

E-mail:
ummilfibrianti72@guru.sd.belajar.id

Article Doi:

https://doi.org/10.31258/jes.9.5.p.4010-4021

A B S T R A C T

Improving the quality of basic education is an essential foundation for developing competitive human resources. However, many schools face persistent challenges, particularly related to leadership effectiveness and the limited use of data in planning. This study aims to examine the influence of instructional leadership and data-based planning on the quality of public elementary schools in Gunem District, Rembang Regency. The research employed a quantitative explanatory approach with a sample of 108 respondents, consisting of principals and teachers selected through proportional random sampling. Data were collected using a validated Likert-scale questionnaire and analyzed using multiple linear regression. The results show that both instructional leadership and data-based planning have a positive and significant effect on school quality, both individually and simultaneously. The simultaneous test revealed that the two variables together explained 35.6% of the variance in school quality, demonstrating their complementary impact. In conclusion, strong instructional leadership combined with systematic data-driven planning substantially improves school quality, while other external factors also play a role in achieving sustainable educational improvement.

1. Introduction

Enhancing the quality of basic education represents a fundamental foundation for cultivating superior and competitive human resources. The mandate of the Republic of Indonesia Law Number 20 of 2003 on the National Education System (Sisdiknas Law, 2003) emphasizes that education serves to develop competencies, shape character, and build a dignified national civilization. Both central and local governments carry the responsibility of guaranteeing access to quality education for all citizens without discrimination (Chapter IV, Article 11, Paragraph 1).

In practice, however, disparities in educational quality remain evident across regions. Findings from the 2024 Education Report reveal that public elementary schools in Gunem District, Rembang Regency, have yet to achieve the expected minimum standards. The average scores for learning quality (69.03), teacher reflection on learning (65.40), and instructional leadership (63.06) remain in the "low" category, while only literacy (80.44) and numeracy (77.90) reach a "good" level.

Ministerial Regulation Number 16 of 2022 issued by the Ministry of Education, Culture, Research, and Technology underscores that learning process standards must be aligned with graduate competency standards. Nevertheless, the limited performance in learning quality and instructional leadership demonstrates a clear disconnect between the expected standards and conditions observed in schools.

One major determinant of educational quality is instructional leadership, which highlights the role of principals in improving learning outcomes through the professional development of teachers (Wibowo, 2022). Principals function as agents of change in curriculum implementation, teaching strategies, and classroom management (Aslam, 2022). Furthermore, they are responsible for fostering a supportive learning climate, articulating academic visions, and delivering sustained pedagogical assistance (Hallinger, 2011; Ismail et al., 2018). Yet, a considerable number of principals remain preoccupied with administrative tasks, thereby neglecting efforts to enhance learning quality (Celikten, 2021). In this regard, effective instructional leadership becomes essential to reconcile administrative obligations with the fundamental responsibility of improving educational quality (Komariah & Triatna, 2015; Mulyasa, 2015).

Another significant element is data-based planning (DBP), which relies on education report data to guide targeted interventions and quality enhancement programs. DBP is considered a more accountable and effective educational management approach (Bailey & Michaels, 2019; Bryson, 2004) since it is grounded in valid and systematically organized data (Abdurahman, 2018; Hidayatullah, 2020). The importance of evaluating education systems as a foundation for DBP implementation is further reinforced by Ministerial Regulation Number 9 of 2022.

Based on this background, this study seeks to investigate the influence of instructional leadership and data-based planning on the quality of public elementary schools in Gunem District, Rembang Regency. The results are expected to provide insights for strengthening data-driven school management practices and enhancing the leadership competencies of principals at the elementary level.

The concept of elementary school quality refers to the institution's capacity to deliver educational services that meet or surpass established standards and address the needs of all stakeholders. Quality is not limited to learning outcomes such as student achievement but also includes inputs, teaching processes, and educational outputs. Sallis (2020) identifies three perspectives on quality: absolute (ideal), relative (based on standards), and consumer-oriented (based on satisfaction).

According to Muchtar (2024), school quality encompasses three dimensions: input, process, and output. Inputs consist of teaching staff, students, infrastructure, and financial resources. Processes involve curriculum and teaching materials, teaching and learning activities (TLA), along with management and leadership. Outputs include student academic performance, teacher and principal effectiveness, and overall school achievements. Current quality assurance policies are supported by the Education Report Card, stipulated in Permendikbudristek No. 9 of 2022, which functions as an instrument to evaluate service quality and school performance in pursuit of continuous improvement. The report card evaluates dimensions such as literacy, numeracy, learning quality, instructional leadership, and learning environment.

Instructional leadership is characterized as a leadership style where principals emphasize improvements in teaching and student outcomes. This role requires principals to actively supervise teachers, oversee curriculum implementation, and assess instructional practices. As Mulyasa (2023) points out, principals should cultivate a school environment that promotes learning and teacher professional development. Wibowo (2022) argues that instructional leadership empowers the entire school community through structured initiatives designed to enhance educational quality. Sanjaya (2023) and Hermawan (2023) also stress that this type of leadership prioritizes learning and requires principals to assist teachers in adopting innovative instructional methods. Research by Raihani (2020) confirms that instructional leadership in Indonesian schools is crucial for building effective institutions, particularly through the development of teachers' professional capacities and improvements in learning quality. This aligns with the findings of Ari Werdiningsih & Ayu Nyoman (2022), who highlight principals' critical roles in curriculum supervision, teacher guidance, and instructional assessment. Hallinger (2020) further notes that instructional leaders must instill a shared vision, foster a culture of high expectations, monitor student learning progress, and remain visible in shaping school culture.

Meanwhile, data-based planning (DBP) represents a strategic framework for decision-making that draws on accurate and relevant educational data. Bailey & Michaels (2019) and Bryson (2004) observe that planning grounded in data significantly improves the success of education program implementation. Fitriani & Usman (2017) emphasize that data must be validated to ensure its reliability as a foundation for planning. Within schools, data can be obtained from teachers, parents, students, and the community (Asrijanty, 2021). The Ministry of Education, Culture, Research, and Technology, through the Education Report Card, encourages schools to design tailored and measurable interventions based on data. This instrument provides key performance indicators to support data-driven initiatives. The effectiveness of DBP is shaped by several factors, including the quality and availability of data, teachers' data literacy, leadership capacity of principals, technological infrastructure, and stakeholder participation (Kemendikbudristek, 2023; Mulyasa, 2020; Fullan, 2011; OECD, 2019).

2. Methodology

This study employed a quantitative explanatory approach with a causal-comparative design. The explanatory method was chosen to examine and clarify the causal relationship between independent and dependent variables through statistical analysis (Sugiyono, 2022). Specifically, the study aimed to measure the influence of instructional leadership (X1) and data-based planning (X2) on school quality (Y). This methodological approach aligns with current trends in educational management, which emphasize the significance of data-driven decision-making (Napitupulu & Mulyanto, 2023).

The research was conducted in Gunem District, Rembang Regency, covering all 20 public elementary schools. This location was purposively selected because it reflects variations in school quality within rural contexts (Mustaqimah & Abdullah, 2022). Data collection took place from May to July 2025. The research design followed a causal-comparative (ex post facto) structure, with steps including: (1) identification of variables and hypothesis formulation, (2) development of the research instrument, (3) validity and reliability testing of the instrument, (4) administration of questionnaires to the sample, (5) data screening, coding, and entry, (6) prerequisite testing for regression analysis, (7) multiple linear regression analysis, and (8) interpretation of results (Ghozali, 2021).

The population of this study consisted of all principals and teachers of public elementary schools in Gunem District, totaling 148 individuals. Sampling was conducted using a proportional random sampling technique to ensure each unit had an equal probability of selection. Based on Slovin's formula with a 5% margin of error, a representative sample of 108 respondents was determined (Sugiyono, 2022). The study examined three variables: (1) instructional leadership (X1), defined as the ability of principals to guide teaching practices and support professional development of teachers (Hallinger & Murphy, 2020); (2) data-based planning (X2), referring to the preparation of school programs grounded in student achievement records, attendance, and other relevant performance indicators (Bailey & Michaels, 2019; Putri & Anwar, 2025); and (3) school quality (Y), encompassing educational inputs, processes, and outputs such as leadership performance, teacher effectiveness, and student achievement (Ismail et al., 2018).

The research instrument was a five-point Likert scale questionnaire, ranging from "Strongly Disagree" to "Strongly Agree." Questionnaire items were developed based on theoretical indicators of each variable. The data collected included information on principals' instructional leadership practices, the extent of evidence-based planning at the school level, and indicators of school quality such as teacher performance, learning processes, and student outcomes. Instrument validity was tested using the Pearson Product-Moment correlation to assess the relationship between each item and the total score, with all items found valid. Reliability was examined through Cronbach's Alpha, producing a coefficient above 0.90, which indicates a very high level of internal consistency (Sugiyono, 2022; Ghozali, 2021). Data collection was carried out through the direct distribution of questionnaires to principals and teachers at their respective schools. This technique was selected to

maximize the response rate and ensure accurate responses (Wahyuni & Suryadi, 2023). Completed questionnaires were checked for completeness, coded, and subsequently entered into statistical software for analysis.

The data analysis consisted of two stages. The first stage involved prerequisite tests, which included the Kolmogorov–Smirnov test for normality, ANOVA for linearity and homogeneity, and multicollinearity testing to confirm the absence of strong correlations between independent variables (Santoso, 2015; Siregar, 2014). The second stage involved hypothesis testing, consisting of Pearson correlation analysis to measure the strength of relationships among variables, multiple linear regression analysis to determine both simultaneous and partial effects of instructional leadership and data-based planning on school quality, and the use of F-tests and t-tests to assess the statistical significance of the regression model and individual predictors.

3. Results and Discussion

The condition of public elementary schools in Gunem District, Rembang Regency, at the time of the research generally reflected the characteristics of rural schools that were in the process of adapting to educational reforms and quality improvement demands. The total number of students across the 20 schools reached more than 1,500, with varying class sizes ranging from 20 to 35 students per class. Most school buildings were permanent, though several classrooms showed signs of physical wear and limited space for extracurricular activities. Facilities such as libraries, computer labs, and science rooms were available in some schools but remained unevenly distributed, with urban-proximate schools enjoying better infrastructure compared to those in remote villages. In terms of curriculum implementation, schools adopted the national Kurikulum Merdeka as a reference while also integrating local content and religious education in line with community values. Teacher qualifications were relatively diverse, with some already holding professional certification while others were still in the process of completing competency-based training. Overall, while the schools demonstrated strong commitment to student learning, they continued to face challenges in resource allocation, curriculum innovation, and maintaining consistent instructional quality across all units. This situational overview provides important context for understanding the dynamics of leadership, planning, and quality improvement explored in this study.

The data collection process employed a survey method using a structured questionnaire as the primary instrument. The questionnaire was designed to measure three variables: instructional leadership (X1), data-based planning (X2), and school quality (Y). Each variable was operationalized into several dimensions and translated into question items using a five-point Likert scale ranging from “Strongly Disagree” (1) to “Strongly Agree” (5). The questions were distributed to 108 teachers across 20 schools to capture their perceptions of principals’ leadership practices, the use of data in school planning, and the overall quality of education services. In addition, documentation in the form of school profiles and reports was

analyzed to support the survey findings. The key items included in the questionnaire are presented in Table 1 below.

Table 1. List of Questionnaire Items

No	Variable	Dimension	Example Question Item
1	Instructional Leadership (X1)	Curriculum & Instruction Management	"How often does your principal guide and supervise the preparation and implementation of lesson plans?"
		Expectations for Staff & Students	"To what extent does your principal set clear expectations for teachers and students regarding performance and achievement?"
2	Data-Based Planning (X2)	Data Analysis	"How frequently is student learning data analyzed to improve teaching and learning programs?"
		Stakeholder Involvement	"In what ways are parents, teachers, and the community involved in school planning activities?"
3	School Quality (Y)	Educational Input	"How effective are the teaching and learning activities in supporting students' academic and non-academic development?"
		Educational Process	"To what extent are facilities, infrastructure, and learning resources adequate to support the learning process?"
		Educational Output	"How well do students achieve the expected competencies and demonstrate good character after completing their education?"

Source: Research Questionnaire, 2025

The data analyzed in this study were obtained from responses of 108 teachers representing 20 public elementary schools in Gunem District, Rembang Regency. The responses provide valuable insights into teachers' perceptions of leadership practices, planning strategies, and the overall quality of educational services in their respective schools. After being collected, the data were processed and analyzed using descriptive statistics to capture the general trends and variations that emerged across the participating schools. This step is important because descriptive analysis not only summarizes the central tendencies of the data but also reveals the extent of consistency or diversity in teachers' views. By interpreting both the mean scores and the standard deviations, the study is able to offer a clearer picture of the areas where schools perform strongly and the aspects that may still require attention and improvement. The descriptive statistical results are summarized in Table 2 below.

Table 2. Descriptive Statistics of Research Variables

Variable	Mean	Std. Deviation
Instructional Leadership (X1)	89.30	4.217
Data-Based Planning (X2)	91.00	3.250
School Quality (Y)	99.03	0.826

Source: Processed Primary Data, 2025

The results show that all three variables scored relatively high, reflecting positive teacher perceptions. Among them, school quality reached the highest mean (M = 99.03, SD = 0.826), which falls into the *very high* category. Meanwhile, instructional leadership (M = 89.30, SD = 4.217) and data-based planning (M = 91.00, SD = 3.250) were categorized as *high*, but showed slightly greater variability in responses, as reflected in their higher standard deviations. In addition to the statistical summary, the overall distribution of responses is visualized in Figure 1.

Dimensional Analysis

In addition to the overall description of the three main variables, a more detailed analysis was carried out at the dimensional level to capture the specific strengths and weaknesses of each construct. This approach is important because mean scores alone may obscure variation across different aspects of a variable. For example, a high overall score on instructional leadership might be driven by strong performance in one dimension, while other dimensions remain weaker. Similarly, data-based planning and school quality are multidimensional concepts that require a breakdown into their components in order to provide a clearer and more meaningful interpretation. By examining each dimension separately, the analysis highlights which practices have been successfully implemented in schools and which areas still need improvement. The results of this dimensional analysis for instructional leadership, data-based planning, and school quality are summarized in table 3**.**

Table 3. Dimensional Analysis of Variables

Variable / Dimension	Mean	Interpretation
Instructional Leadership (X1)		
• Curriculum & Instruction Management	18.71	High
• Expectations for Staff & Students	17.67	Moderate
Data-Based Planning (X2)		
• Data Analysis	23.26	High
• Stakeholder Involvement	21.45	Moderate
School Quality (Y)		
• Educational Process	33.30	Very High
• Educational Input	32.11	High
• Educational Output	31.82	High

Source: Processed Primary Data, 2025

The dimensional analysis in table 3 shows that principals' strength in instructional leadership lies in curriculum and instructional management (M = 18.71), while setting clear expectations for staff and students remains relatively weaker (M = 17.67). For data-based planning, the highest score was found in data analysis (M = 23.26), indicating growing use of evidence in decision-making, whereas stakeholder involvement (M = 21.45) still needs improvement. Meanwhile, school quality was perceived strongest in the educational process (M = 33.30), with educational input (M = 32.11) and output (M = 31.82) also rated high, suggesting that teaching and learning practices are effective though resource provision and student achievement could be further enhanced.

Assumption Testing

Before conducting hypothesis testing, several assumption tests were carried out to ensure the feasibility of multiple linear regression analysis. The normality test using Kolmogorov–Smirnov produced a significance value of 0.200 (> 0.05), indicating that the residuals were normally distributed. The linearity test confirmed significant linear relationships between the independent variables and school quality (Sig. < 0.05). Examination of scatterplots also showed a random distribution of residuals, thereby meeting the assumption of homoscedasticity. In addition, the multicollinearity test revealed tolerance values above 0.10 and VIF values below 10, suggesting that no strong correlation existed between instructional leadership and data-based planning. These results collectively indicate that the dataset fulfilled all regression assumptions, thus validating the use of multiple regression analysis in this study.

Hypothesis Testing

Before moving to the discussion, hypothesis testing was conducted to examine the effects of instructional leadership (X1) and data-based planning (X2) on school quality (Y), both individually and simultaneously. This stage was carried out to ensure that the proposed research model could be empirically tested and that the contribution of each independent variable could be quantified. Multiple linear regression was employed as the analytical technique, as it is considered appropriate for measuring the predictive relationship between two or more independent variables and a dependent variable in social science research. Prior to the analysis, all necessary assumption tests had been conducted, and the results confirmed that the dataset fulfilled the requirements for regression analysis, such as normality, linearity, homoscedasticity, and the absence of multicollinearity. Therefore, the regression results obtained can be considered reliable and valid in describing the actual conditions in the field. The statistical outcomes are summarized in Table 4.

Table 4. Summary of Hypothesis Testing Results

Hypothesis	Variable(s) Tested	B	t-value	Sig.	R^2	F-value
H1	X1 → Y	0.048	2.794	0.006	0.083	–
H2	X2 → Y	0.057	2.423	0.017	0.105	–
H3	X1 + X2 → Y (Simultaneous effect)	–	–	–	0.356	19.843

(Source: Processed Primary Data, 2025)

The Effect of Instructional Leadership on School Quality

The regression results showed that instructional leadership had a significant positive effect on school quality (B = 0.048, t = 2.794, Sig. = 0.006), with R^2 = 0.083. Although the contribution is statistically significant, its explanatory power is relatively modest, accounting for only 8.3% of the variance. This finding suggests that while principals' efforts in supervising instruction, managing curriculum, and fostering teacher professional growth do contribute to improving school quality, these practices alone are insufficient to drive substantial improvements without

support from other factors such as teacher motivation, resource availability, and school-community collaboration. In this sense, the result resonates with Suriansyah (2017), Hallinger & Wang (2015), Wibowo & Sunaryo (2019), and Nasution et al. (2021), who emphasized that instructional leadership enhances teacher performance and student achievement. However, the relatively small R^2 also indicates that in the context of elementary schools in Gunem, the impact of leadership may be limited by external conditions, such as rural resource constraints or variation in teacher competencies, thus requiring complementary strategies beyond leadership practices.

The Effect of Data-Based Planning on School Quality

The analysis further confirmed that data-based planning significantly influenced school quality (B = 0.057, t = 2.423, Sig. = 0.017), with $R^2 = 0.105$. This means that 10.5% of the variation in school quality can be explained by the systematic use of data in planning. Compared with instructional leadership, DBP showed a slightly higher contribution, which suggests that schools in Gunem District are beginning to benefit more from practices of collecting, analyzing, and utilizing data in decision-making. Nonetheless, the explanatory power remains limited, reflecting that the culture of evidence-based planning may still be in its early stages and unevenly implemented across schools. The finding is consistent with Bailey & Jakicic (2017), Wahyuni & Ahmad (2020), Sugiyanto & Handayani (2019), and Marzuki et al. (2021), who highlighted the importance of DBP in shaping accountability and effectiveness. Yet, in the present study, the relatively modest R^2 implies that while DBP improves problem identification and intervention design, it must be supported by adequate data literacy among teachers and strong stakeholder involvement to fully realize its potential in improving school quality.

The Combined Effect of Instructional Leadership and Data-Based Planning on School Quality

The simultaneous regression analysis confirmed that instructional leadership and DBP together had a significant effect on school quality (F = 19.843, Sig. = 0.000), explaining 35.6% of the variance ($R^2 = 0.356$). This proportion is considerably larger than the effects of each predictor alone, which underscores that the interaction between leadership practices and evidence-based planning is more powerful than either factor in isolation. In practical terms, this finding suggests that principals who combine strong instructional leadership with systematic data use create a school environment that is both adaptive and improvement-oriented. Such synergy supports the systems perspective in educational management, which stresses the interdependence between leadership and evidence-based practices. Nevertheless, the model also shows that 64.4% of the variance remains unexplained, indicating that other factors such as teacher professionalism, student characteristics, infrastructure, and community support also play important roles in shaping school quality. These results reinforce the need for an integrated approach where leadership and data-driven planning are embedded within broader strategies to enhance educational outcomes.

4. Conclusion

This study investigated the influence of instructional leadership and data-based planning (DBP) on the quality of public elementary schools in Gunem District, Rembang Regency. The findings revealed that both variables have a significant and positive effect on school quality, both individually and collectively. The regression analysis indicated that instructional leadership plays an essential role in shaping a conducive learning environment, guiding curriculum implementation, supervising instruction, and supporting teachers' professional growth. Principals who effectively perform these roles contribute to higher levels of student achievement and overall school performance. Data-based planning was also found to significantly enhance school quality. By systematically collecting, analyzing, and utilizing educational data such as assessment results, attendance records, and education report cards schools can make informed decisions, prioritize improvement areas, and implement targeted interventions. Effective DBP fosters accountability, precision in program design, and measurable progress toward quality goals.

The simultaneous influence of instructional leadership and DBP accounted for 35.6% of the variation in school quality, highlighting the importance of integrating strong leadership with data-driven decision-making in school management. These results support the systems approach to education management, which emphasizes that sustainable improvement requires strategic alignment between leadership practices and evidence-based planning processes. In practical terms, improving school quality in similar contexts should focus on strengthening principals' instructional leadership competencies while promoting a culture of data literacy among school staff. Capacity-building initiatives, professional development programs, and collaborative planning sessions based on accurate data can enhance both leadership effectiveness and planning quality. Ultimately, the synergy between effective instructional leadership and robust DBP can create a professional, adaptive, and quality-oriented school ecosystem capable of delivering continuous improvement in educational outcomes.

References

Abdurahman, M. (2018). *Statistik pendidikan*. Yogyakarta: Deepublish.

Aslam, H. (2022). Instructional leadership: Developing learning culture in elementary school. *International Journal of Educational Leadership and Management, 10*(1), 23–35.

Asrijanty. (2021). Perencanaan berbasis data di satuan pendidikan. *Jurnal Manajemen Pendidikan, 12*(2), 198–210.

Bailey, J., & Michaels, S. (2019). *The transformation of school leadership: Using data to guide improvement*. Cambridge, MA: Harvard Education Press.

Bryson, J. M. (2004). *Strategic planning for public and nonprofit organizations* (3rd ed.). San Francisco: Jossey-Bass.

Celikten, M. (2021). The role of instructional leadership in school effectiveness: A review of international literature. *Educational Management Review, 12*(2), 18–28.

Fitriani, C. A. R., & Usman. (2017). *Manajemen strategis pendidikan berbasis data*. Jakarta: Kencana.

Fullan, M. (2011). *Change leader: Learning to do what matters most*. San Francisco: Jossey-Bass.

Ghozali, I. (2021). *Aplikasi analisis multivariate dengan program IBM SPSS 25*. Semarang: Badan Penerbit Universitas Diponegoro.

Hallinger, P. (2011). Leadership for learning: Lessons from 40 years of empirical research. *Journal of Educational Administration, 49*(2), 125–142.

Hallinger, P. (2020). Instructional leadership and the school principal: A passing fancy that refuses to fade away. *Leadership and Policy in Schools, 19*(1), 1–20.

Hermawan. (2023). Kepemimpinan instruksional kepala sekolah dan implikasinya dalam pembelajaran. *Jurnal Kependidikan, 15*(2), 120–130.

Hidayatullah, M. F. (2020). *Manajemen data pendidikan: Konsep dan aplikasi*. Surabaya: Unesa Press.

Hoy, A. W., & Hoy, W. K. (2013). *Instructional leadership: A research-based guide to learning in schools* (4th ed.). Boston: Allyn & Bacon.

Ismail, H. N., Abdullah, A. G. K., & Ayub, A. F. M. (2018). Instructional leadership and teacher commitment in improving academic achievement. *International Journal of Academic Research in Business and Social Sciences, 8*(5), 765–772.

Kemendikbudristek. (2023). *Panduan implementasi rapor pendidikan dan perencanaan berbasis data*. Jakarta: Kemendikbudristek.

Komariah, A., & Triatna, C. (2015). *Visionary leadership: Menuju sekolah efektif*. Jakarta: Bumi Aksara.

Muchtar. (2024). Dimensi mutu sekolah dalam standar nasional pendidikan. *Jurnal Evaluasi Pendidikan, 9*(1), 11–23.

Mulyasa, E. (2015). *Menjadi kepala sekolah profesional*. Bandung: Remaja Rosdakarya.

Mulyasa, E. (2020). *Pengembangan dan implementasi Kurikulum 2013*. Bandung: Remaja Rosdakarya.

Mulyasa, E. (2023). *Kepemimpinan kepala sekolah: Pengembangan kompetensi dalam meningkatkan mutu pendidikan*. Bandung: Remaja Rosdakarya.

Mustaqimah, R., & Abdullah, A. (2022). Persepsi guru terhadap mutu pendidikan dasar di daerah 3T. *Jurnal Ilmiah Pendidikan Dasar, 9*(1), 34–45.

Napitupulu, T., & Mulyanto. (2023). Data-driven education management: Tantangan dan strategi di sekolah dasar. *Jurnal Manajemen Pendidikan, 12*(1), 57–67.

OECD. (2019). *Measuring innovation in education: A journey to the future*. Paris: OECD Publishing.

Peraturan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia Nomor 9 Tahun 2022 tentang evaluasi sistem pendidikan.

Putri, L. A., & Anwar, S. (2025). Strategi perencanaan berbasis data di sekolah dasar. *Jurnal Kepemimpinan dan Inovasi Pendidikan, 5*(1), 22–35.

Raihani. (2020). Instructional leadership in Indonesia: Trends and practices. *Journal of Educational Management, 11*(2), 45–59.

Sallis, E. (2020). *Total quality management in education* (4th ed.). London: Routledge.

Sanjaya, W. (2023). Kepemimpinan instruksional dan mutu sekolah. *Jurnal Administrasi Pendidikan, 14*(1), 140–150.

Santoso, S. (2015). *Menguasai statistik dengan SPSS 22*. Jakarta: Elex Media Komputindo.

Siregar, S. (2014). *Statistik parametrik untuk penelitian kuantitatif*. Jakarta: Bumi Aksara.

Sugiyono. (2022). *Metode penelitian pendidikan kuantitatif, kualitatif dan R&D* (Edisi revisi). Bandung: Alfabeta.

Undang-Undang Republik Indonesia Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional.

Werdiningsih, A & Nyoman, A. (2022). Instructional leadership dan pengaruhnya terhadap pembelajaran. *Jurnal Kepemimpinan Pendidikan, 8*(1), 34–45.

Wibowo, A. (2022). Instructional leadership: Strategi kepala sekolah dalam peningkatan mutu pendidikan. *Jurnal Manajemen Pendidikan, 14*(1), 75–85.

Wijaya, D., Purwanto, A., & Narmaditya, B. S. (2021). The impact of teacher professional competence on school quality. *Jurnal Pendidikan dan Pembelajaran, 10*(2), 87–96.

How to cite this article:

Fibrianti, U. M., Egar, N., & Abdullah, G. (2025). The Influence of Instructional Leadership and Data-Based Planning on School Quality: A Study of Public Elementary Schools in Gunem District Rembang Regency. *Journal of Educational Sciences*, *9(5)*, 4010-4021.