



The Influence of Instructional Leadership and Data-Based Decision Making on Teacher Performance

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Abstract: One-way learning in schools has the potential to lead to dogmatization because it positions the teacher as the sole source of truth, resulting in students being passive and lacking critical thinking skills. This condition is related to the principal's leadership role and suboptimal decision-making patterns. This study aims to analyze the influence of the principal's instructional leadership and data-based decision-making on the performance of public elementary school teachers in Padang Cermin District. The study used a quantitative approach with a survey method. Data were collected through closed-ended questionnaires that had been tested for validity and reliability, then analyzed using multiple linear regression. The results showed that the principal's instructional leadership significantly influenced teacher performance. Data-based decision-making also significantly influenced teacher performance. Simultaneously, both variables had a positive and significant effect on teacher performance. These findings emphasize the importance of strengthening instructional leadership and systematically utilizing data to improve teacher performance and encourage more participatory learning in elementary schools.

Keywords: Instructional Leadership, Decision-Making, Teacher Performance..

Introduction

Elementary education plays a strategic role in developing students' foundational competencies and serves as the basis for success at higher levels of education. At the elementary school level, the quality of the learning process is largely determined by teacher performance as the primary implementers of instructional activities. Optimal teacher performance is reflected in the ability to plan, implement, and evaluate learning systematically and sustainably. Therefore, improving teacher performance is a key factor in enhancing the quality of elementary education. However, various field findings indicate that the performance of elementary school teachers has not yet reached optimal levels. Learning practices remain predominantly teacher-centered, provide limited opportunities for active student engagement, and are not sufficiently supported by continuous reflection and instructional improvement. These conditions negatively affect learning quality and restrict the development of students' critical thinking skills. One contributing factor is the suboptimal role of principals in carrying out instructional leadership functions and the weak utilization of data as a basis for decision making at the school level.

Instructional leadership is a leadership approach that focuses on improving learning quality through strengthening teacher performance. Principals, as instructional leaders, play a central role in formulating learning visions, managing instructional programs, conducting academic supervision, and creating a school climate conducive to enhancing teacher professionalism. Numerous studies have demonstrated that instructional leadership positively

affects teacher performance in lesson planning, instructional implementation, and continuous professional development. Principals who consistently perform instructional leadership functions tend to foster improved learning quality within schools.

Nevertheless, empirical studies integrating instructional leadership and data-based decision making within a single analytical model remain limited, particularly in the context of public elementary schools. Many studies examine these variables separately, thus failing to provide a comprehensive understanding of their simultaneous influence on teacher performance. In practice, instructional leadership and data-based decision making are interrelated and have the potential to reinforce one another.

Based on the 2025 Education Report Card data of public elementary schools in Padang Cermin District, indicators of learning quality, teacher reflection and instructional improvement, and instructional leadership remain predominantly in the moderate and low categories. These findings indicate that teacher performance in the region has not yet reached optimal levels and requires strengthening principals' instructional leadership roles and enhancing data utilization in decision making. This condition provides a strong rationale for conducting a more in-depth empirical study on factors influencing teacher performance. Accordingly, this study seeks to examine the influence of principals' instructional leadership and data-based decision making on teacher performance, both partially and simultaneously. The purpose of this article is to analyze the influence of instructional leadership and data-based decision making on the performance of public elementary school teachers in Padang Cermin District as a basis for strengthening strategies to improve learning quality and evidence-based school management.

Theory

Teacher Performance

Teacher performance is a primary indicator of successful learning processes in elementary schools. Teacher performance refers to teachers' ability to perform professional tasks, including lesson planning, instructional implementation, assessment of learning outcomes, and follow-up actions (Wahyu et al., 2021). Optimal teacher performance is reflected in consistent application of effective instructional strategies, reflective teaching practices, and a commitment to continuous improvement in learning quality.

From an educational management perspective, teacher performance is influenced by both individual and organizational factors. Key organizational factors include principal leadership, school climate, and decision-making systems implemented within schools (Nicolaou & Anastasiou, 2023). Principals play a strategic role in creating a work environment that supports improved teacher performance through professional development and continuous academic supervision. Instructional leadership is understood as leadership that systematically directs all school activities toward improving learning quality through curriculum strengthening, supervision of instructional processes, evaluation of learning outcomes, teacher professional development, and the creation of a conducive and collaborative learning environment (Ahmad et al., 2025). Instructional leadership emphasizes learning components, including curriculum, teaching and learning processes, learning assessment, teacher evaluation and development, excellence in instructional services, and communication within school learning communities (Rusman, 2025).



Principals' Instructional Leadership

Instructional leadership is a leadership approach focused on improving learning quality through strengthening teachers' roles (Harris et al., 2013). Principals, as instructional leaders, are responsible for formulating learning visions, managing instructional programs, conducting academic supervision, and creating school climates conducive to learning. Research over the past decade indicates that instructional leadership significantly influences teacher performance and learning quality (Sariwardani & Silalahi, 2025a). Principals who consistently conduct academic supervision, provide constructive feedback, and encourage teacher professional development are more likely to improve the quality of instructional planning and implementation. Instructional leadership also contributes to building a school culture oriented toward learning and continuous improvement.

Data-Based Decision Making

Data-based decision making is a managerial approach emphasizing the use of empirical data as the basis for formulating school policies and programs (Susanto et al., 2025). Such data may include student learning outcomes, education report cards, academic supervision results, and teacher performance evaluations. In school contexts, data-based decision making aims to enhance policy accuracy and effectiveness by minimizing managerial subjectivity (Forrester, 2019). Studies show that schools systematically implementing data-based decision making tend to be more adaptive in identifying instructional problems and setting priorities for improving teacher performance (Schildkamp et al., 2019). Theoretically, instructional leadership and data-based decision making are complementary approaches in improving teacher performance. Evidence-based decision making enables schools to achieve strategic objectives more measurably and sustainably by utilizing analytical data for policy planning and evaluation (Laila & Ramli, 2025).

Method

Research Design and Approach

This study employed a quantitative approach using a survey method. The quantitative approach was chosen to empirically test the influence between variables through statistical analysis. The survey method was used to obtain direct data from respondents regarding principals' instructional leadership, data-based decision making, and teacher performance. This study is explanatory in nature, aiming to explain relationships and influences between independent and dependent variables, both partially and simultaneously.

Research Site and Time

The study was conducted at public elementary schools in Padang Cermin District, Pesawaran Regency, Lampung Province. The site was selected based on Education Report Card analyses indicating the need for improvement in learning quality and instructional leadership. The research was conducted during the ongoing academic year.

Population and Sample

The population comprised all public elementary school teachers in Padang Cermin District. Given the manageable population size, a saturated sampling (total sampling) technique was employed, whereby all population members were included as research participants.

Research Variables

1. The study involved three main variables:
2. Principals' instructional leadership (X_1)
3. Data-based decision making (X_2)
4. Teacher performance (Y)

Research Instruments

Data were collected using a Likert-scale questionnaire with five response options ranging from strongly disagree to strongly agree. The instruments were developed based on theoretical indicators and previous research. Instructional leadership indicators included learning vision formulation, instructional program management, academic supervision, and learning climate creation. Data-based decision making indicators included the utilization of learning outcome data, supervision data, and performance evaluation data. Teacher performance indicators included lesson planning, instructional implementation, learning assessment, and follow-up actions.

All instruments were tested for validity and reliability prior to use.

Data Analysis Techniques

Data analysis involved descriptive and inferential statistics. Descriptive statistics described variable tendencies, while inferential statistics tested research hypotheses.

Analysis stages included:

1. Assumption tests (normality, linearity, multicollinearity)
2. Hypothesis testing using multiple linear regression analysis

A significance level of 0.05 was applied. Statistical analysis was conducted using appropriate software.

Result and Discussion

The Influence of Principals' Instructional Leadership on Teacher Performance

The results indicate that principals' instructional leadership has a positive and significant effect on elementary school teacher performance. This finding suggests that principals focused on instructional management can sustainably improve teacher performance. Effective instructional leadership is reflected in clear learning visions, academic supervision practices, and support for teacher professional development. Theoretically, this finding aligns with views that instructional leadership is a key determinant of learning quality (Schildkamp et al., 2019). Principals actively involved in instructional development foster school climates that



encourage teachers to enhance pedagogical and professional competencies. This explains why improvements in instructional leadership are followed by improved teacher performance.

The Influence of Data-Based Decision Making on Teacher Performance

The findings also demonstrate that data-based decision making has a positive and significant effect on teacher performance. This underscores the importance of systematic educational data utilization in improving teacher effectiveness. Student learning outcomes, supervision results, and education report cards provide objective foundations for policy formulation and performance improvement programs. Data-based planning encourages reflective teaching practices and evidence-based interventions (Sahriah, 2025). Consequently, teacher performance improves when school decisions are grounded in empirical data.

The Simultaneous Influence of Instructional Leadership and Data-Based Decision Making on Teacher Performance

Simultaneously, principals' instructional leadership and data-based decision making significantly influence teacher performance. This finding indicates that teacher performance improvement is more optimal when instructional leadership is supported by systematic data utilization. The integration of instructional leadership and data-driven decision making results in more objective, adaptive, and sustainable school management practices. These findings reinforce previous studies highlighting the importance of data-based educational leadership in improving educational quality (Widiansyah et al., 2025).

Conclusion

Based on the research findings, it can be concluded that principals' instructional leadership has a positive and significant influence on elementary school teacher performance. This indicates that principals' roles as instructional leaders are strategic in improving teacher performance, particularly in lesson planning, instructional implementation, and evaluation. Simultaneously, instructional leadership and data-based decision making significantly influence teacher performance. The synergy between these variables is essential for school management oriented toward continuous instructional improvement. Thus, the research objectives have been achieved, and all hypotheses are accepted. The findings imply that improving elementary school teacher performance requires strengthening principals' instructional leadership and fostering a culture of data-based decision making as integral components of educational management.

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