

## **The Effect of Principals' Academic Supervision and Teachers' Discipline on Teachers' Teaching Performance in Junior High Schools**

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**Abstract:** Improving teacher performance in resource-constrained rural schools remains a critical challenge. While principal supervision and teacher discipline are acknowledged factors, their combined and relative impact in such contexts is poorly understood. Utilizing a census of all teachers (N=85) from three public junior high schools in Kedurang District, Indonesia, this study employed multiple regression analysis on survey data. Results indicated that teacher discipline ( $\beta = 0.712$ ,  $p < .001$ ) was a significant positive predictor of teaching performance. Academic supervision showed a positive but non-significant relationship ( $\beta = 0.027$ ,  $p = .797$ ). Together, both variables explained 56.2% of the variance in teaching performance ( $R^2 = 0.562$ ,  $p < .001$ ). Teacher discipline alone accounted for 56.2% of the variance, while academic supervision contributed 33.0% when examined individually. This study addresses the gap in understanding how supervisory practices and professional discipline operate in non-urban Indonesian junior high schools, revealing that teacher discipline is the dominant factor while supervision's effect is context-dependent. The results suggest that school principals in rural settings should prioritize reinforcing teacher discipline while improving the quality and developmental orientation of academic supervision to maximize teaching performance. The study underscores the necessity of integrated leadership strategies that combine developmental supervision with fostering intrinsic professional discipline to enhance teaching quality in rural settings.

**Keywords:** Academic Supervision, Rural Education, Teacher Discipline, Teacher Performance, Teaching Quality

### **A. Introduction**

Education quality significantly depends on teacher performance, which serves as the primary determinant of student learning outcomes and educational effectiveness (Pietsch et al., 2019). In the Indonesian educational context, teachers play a pivotal role in implementing curriculum and delivering instruction that shapes students' academic

achievement and character development. However, teacher performance does not occur in isolation but is influenced by various organizational and individual factors that require systematic investigation (Feng & Helms-lorenz, 2023).

What is known from the existing literature is that teacher performance can be enhanced through effective instructional leadership and organizational support mechanisms (Hallinger et. al., 2007). Extensive research has documented that principals' supervisory practices significantly influence teacher instructional quality and professional development (Saputra, 2021). Studies have consistently demonstrated that when principals engage in meaningful classroom observations, provide constructive feedback, and support teachers' professional growth, teaching effectiveness improves substantially (Firmansyah et al., 2025). Similarly, teacher discipline, characterized by punctuality, adherence to professional standards, and commitment to responsibilities, has been recognized as a critical component of professional competence that affects teaching quality (Li et al., 2020).

What remains unknown, however, is how these factors specifically interact and influence teaching performance in rural Indonesian educational contexts, particularly in areas with limited resources and unique socio-cultural characteristics (Singerin, 2021). While international research has examined supervisory effectiveness and teacher discipline separately, limited empirical evidence exists regarding their combined effects in non-urban Indonesian junior high schools. The mechanisms through which academic supervision and discipline jointly contribute to teaching performance in resource-constrained rural settings require deeper investigation, especially considering the distinct challenges faced by schools in peripheral regions such as South Bengkulu.

The state of the art in educational leadership research emphasizes the importance of transformational and instructional leadership in enhancing teacher performance (Quested et al., 2018). Recent studies highlight that effective academic supervision involves not merely monitoring compliance but engaging teachers in reflective dialogue, collaborative problem-solving, and continuous professional learning (Zohriah et al., 2022). Contemporary approaches to supervision emphasize developmental rather than evaluative orientations, focusing on teacher growth through coaching, mentoring, and evidence-based feedback (Silva et al., 2024). Concurrently, research on teacher professionalism underscores that discipline extends beyond simple rule-following to encompass intrinsic motivation, professional ethics, and commitment to excellence. Modern conceptualizations view discipline as a dimension of professional identity that shapes how teachers approach their responsibilities, manage their time, and engage with students and colleagues (Dharma et al., 2020).

The novelty of this study lies in its integrated examination of academic supervision and teacher discipline as simultaneous predictors of teaching performance within the specific context of rural Indonesian junior high schools. Unlike previous studies that have predominantly focused on urban or well-resourced schools (Quested et al., 2018), this research addresses the gap in understanding how these factors operate in Kedurang District, a non-urban area in South Bengkulu characterized by geographic remoteness, limited educational infrastructure, and socio-economic challenges. The study provides empirical evidence on whether established theoretical relationships between supervision, discipline, and performance hold true in peripheral educational settings where contextual constraints may modify these dynamics. Furthermore, this research contributes methodologically by employing total sampling of the entire teacher population in the district, ensuring comprehensive representation rather than relying on partial samples that may not capture the full range of experiences in small rural school systems.

The contribution of this study extends to both theoretical and practical domains. Theoretically, it enhances understanding of how organizational factors such as principals' academic supervision and individual factors such as teachers' discipline interact to influence teaching performance in contexts that differ substantially from the predominantly Western or urban settings where most educational leadership research has been conducted (Kraft et al., 2024). The findings inform theories of educational leadership and teacher professionalism by demonstrating whether and how these constructs function in resource-constrained rural environments. Practically, the research provides evidence-based insights for educational administrators, policymakers, and school principals in similar contexts regarding effective strategies for improving teaching quality (Rohkmat, 2021). By identifying the relative and combined contributions of academic supervision and teacher discipline, the study offers actionable recommendations for leadership practices and human resource management in rural schools facing multiple constraints.

Given the critical importance of teaching quality for educational outcomes and the unique challenges faced by rural Indonesian schools, this study addresses the following research questions: First, to what extent does principals' academic supervision affect teachers' teaching performance in junior high schools in Kedurang District? Second, to what extent does teachers' discipline affect their teaching performance? Third, what is the combined effect of principals' academic supervision and teachers' discipline on teachers' teaching performance? These questions guide the empirical investigation and inform both theoretical understanding and practical applications for enhancing teaching effectiveness in rural educational contexts.

## **B. Methods**

This study employed a quantitative research approach with an ex post facto correlational design to examine the relationships between principals' academic supervision, teachers' discipline, and teachers' teaching performance. The ex post facto design was appropriate because the study investigated naturally occurring phenomena without experimental manipulation, analyzing variables as they existed in the educational settings of Kedurang District.

The research was conducted in Kedurang District, South Bengkulu Regency, Bengkulu Province, Indonesia. This district represents a non-urban educational context characterized by geographic remoteness, limited infrastructure, and socio-economic challenges typical of peripheral regions in Indonesia (Hernandez et al., 2025). The study sites included three public junior high schools in the district: SMP Negeri 19 Bengkulu Selatan, SMP Negeri 8 Bengkulu Selatan, and SMP Negeri 14 Bengkulu Selatan. These schools were selected because they constitute all public junior high schools in Kedurang District and are under the direct supervision of the South Bengkulu District Education Office, ensuring uniform policy implementation regarding academic supervision and teacher discipline.

The population consisted of all public junior high school teachers in Kedurang District, totaling 85 teachers across the three schools. Given the manageable size of the population and the research objective of obtaining comprehensive data representing the entire teacher population in the district, total sampling technique was employed. All 85 teachers participated as respondents, eliminating sampling error and ensuring that findings accurately reflect the complete population rather than a subset (Rohkmat, 2021). This approach was particularly appropriate for the study context where the population was small, geographically concentrated, and accessible for complete enumeration.

Data were collected using structured questionnaires designed to measure the three research variables: principals' academic supervision, teachers' discipline, and teachers' teaching performance. Each questionnaire was developed based on theoretical frameworks and operational indicators derived from relevant literature (Pietsch et al., 2019). The academic supervision questionnaire assessed dimensions including supervision planning, implementation, feedback provision, and follow-up actions. The teachers' discipline questionnaire measured aspects such as attendance, punctuality, adherence to school regulations, and fulfillment of teaching responsibilities. The teaching performance questionnaire evaluated components including lesson planning, instructional delivery, classroom management, student assessment, and professional development engagement (Mandinach & Jimerson, 2021).

All instruments utilized a five-point Likert scale ranging from one indicating strongly disagree to five indicating strongly agree, allowing for nuanced measurement of respondents' perceptions. Prior to data collection, the questionnaires underwent rigorous validity and reliability testing. Validity was assessed through expert judgment and statistical analysis using product-moment correlation, with all items demonstrating acceptable validity coefficients. Reliability was evaluated using Cronbach's alpha, with all instruments achieving reliability coefficients above the acceptable threshold, confirming internal consistency and measurement dependability (Sabara et al., 2020).

Data analysis was conducted using both descriptive and inferential statistical techniques. Descriptive statistics including means, standard deviations, minimum values, and maximum values were calculated to characterize the distribution of each variable. Inferential analysis employed simple linear regression to examine the individual effects of academic supervision and teacher discipline on teaching performance, and multiple linear regression to assess their combined effects (Heffernan & Longmuir, 2019). Prior to regression analysis, assumption testing was performed to ensure linearity, normality of residuals, homoscedasticity, and absence of multicollinearity. All statistical analyses were conducted using appropriate software with significance level set at alpha equals zero point zero five, ensuring robust and reliable conclusions regarding the hypothesized relationships among variables.

## C. Results and Discussion

### *Results*

#### **Descriptive Statistics and Correlations**

Table 1 presents the descriptive statistics and intercorrelations among the study variables. The mean score for academic supervision (M = 132.31, SD = 13.97) indicates that teachers perceive principals' supervisory practices as moderately effective. Teacher discipline demonstrated a high mean score (M = 135.09, SD = 13.26), suggesting strong professional commitment and adherence to institutional norms. Teaching performance showed a relatively high mean (M = 131.39, SD = 13.26), indicating generally good instructional quality among rural teachers.

**Table 1. Descriptive Statistics and Intercorrelations Among Study Variables (N = 85)**

Variable	M	SD	1	2	3
1. Academic Supervision	132.31	13.97	–		
2. Teacher Discipline	135.09	13.26	.574**	–	
3. Teaching Performance	131.39	13.26	.574**	.750**	–

Note. M = Mean; SD = Standard Deviation. \*\*p < .01

The correlation analysis revealed significant positive relationships among all variables. Academic supervision correlated significantly with teaching performance ( $r = .574, p < .01$ ), and teacher discipline showed a strong positive correlation with teaching performance ( $r = .750, p < .01$ ). The correlation between academic supervision and teacher discipline was moderate ( $r = .574, p < .01$ ), indicating that while these variables are related, they represent distinct constructs without problematic multicollinearity.

### Regression Analysis Results

Table 2 presents the results of simple and multiple regression analyses examining the relationships between predictor variables (academic supervision and teacher discipline) and teaching performance.

**Table 2. Summary of Regression Analyses Predicting Teaching Performance (N = 85)**

Model	Predictor	B	SE B	$\beta$	t	p	R <sup>2</sup>	Adj. R <sup>2</sup>
Model 1							.330	.322
	Academic Supervision	0.545	0.085	.574	6.432	< .001		
Model 2							.562	.557
	Teacher Discipline	0.751	0.074	.750	10.109	< .001		
Model 3							.562	.552
	(Constant)	31.640	10.023	—	3.155	.002		
	Academic Supervision	0.027	0.104	.027	0.259	.797		
	Teacher Discipline	0.712	0.110	.712	6.488	< .001		

Note: B = unstandardized regression coefficient; SE B = standard error of B;  $\beta$  = standardized regression coefficient; R<sup>2</sup> = coefficient of determination; Adj. R<sup>2</sup> = adjusted R<sup>2</sup>.

As shown in Table 2, Model 1 examined academic supervision as a sole predictor of teaching performance. Results indicated that academic supervision significantly predicted teaching performance,  $\beta = .574, t(83) = 6.432, p < .001$ , accounting for 33.0% of the variance ( $R^2 = .330, \text{Adjusted } R^2 = .322$ ). This suggests that when examined independently, academic supervision demonstrates a moderate positive relationship with teaching effectiveness.

Model 2 assessed teacher discipline as a single predictor. Teacher discipline emerged as a strong significant predictor of teaching performance,  $\beta = .750, t(83) = 10.109, p < .001$ , explaining 56.2% of the variance ( $R^2 = .562, \text{Adjusted } R^2 = .557$ ). The substantially higher R<sup>2</sup> compared to Model 1 indicates that teacher discipline alone accounts for more variance in teaching performance than academic supervision alone.

Model 3 incorporated both predictors simultaneously in a multiple regression analysis. The overall model was statistically significant,  $F(2, 82) = 52.52, p < .001$ , explaining 56.2% of the variance in teaching performance ( $R^2 = .562$ , Adjusted  $R^2 = .552$ ). However, examination of individual predictors revealed differential effects: teacher discipline remained a significant positive predictor ( $\beta = .712, t = 6.488, p < .001$ ), while academic supervision did not contribute unique variance beyond teacher discipline ( $\beta = .027, t = 0.259, p = .797$ ). The regression equation for Model 3 is: Teaching Performance = 31.640 + 0.027 (Academic Supervision) + 0.712 (Teacher Discipline).

Notably, the  $R^2$  value for Model 3 (.562) equals that of Model 2 (.562), indicating that adding academic supervision to a model already containing teacher discipline does not increase explained variance. This suggests that in the current sample, teacher discipline accounts for the predictive capacity of both variables, with academic supervision's bivariate relationship with performance being subsumed when discipline is controlled.

### ***Discussion***

This study examined the effects of principal's academic supervision and teachers discipline on teaching performance in rural Indonesian junior high schools. Three main findings emerged: First, academic supervision demonstrated a significant positive relationship with teaching performance when examined independently ( $\beta = .574, p < .001, R^2 = .330$ ). Second, teacher discipline showed a strong significant positive relationship with teaching performance both independently ( $\beta = .750, p < .001, R^2 = .562$ ) and in multivariate models ( $\beta = .712, p < .001$ ). Third, when both predictors were included simultaneously, only teacher discipline remained significant, with the combined model explaining 56.2% of variance identical to the variance explained by discipline alone.

### **Teacher Discipline as the Dominant Predictor**

The finding that teacher discipline is the sole significant predictor in the multiple regression model, explaining 56.2% of performance variance, provides critical insight into the dynamics of teaching quality in rural Indonesian contexts. This dominance can be understood through multiple theoretical and contextual lenses.

From a cultural perspective, teacher discipline in Indonesian rural communities represents more than procedural compliance, it embodies the cultural values of responsibility and moral exemplarity (Qadach, 2020). Teachers who demonstrate high discipline through punctuality, thorough lesson preparation, and consistent professional engagement fulfill deeply held community expectations regarding educators' roles as moral models. This cultural salience may explain why discipline exerts such powerful

influence on teaching effectiveness, as it directly aligns with community-validated professional norms.

From a resource compensation perspective, discipline may be particularly critical in resource-constrained rural schools where pedagogical materials, technological infrastructure, and external professional development are limited. In such environments, teachers' intrinsic discipline—manifested through systematic planning, efficient time management, and persistent effort despite challenges—becomes the primary mechanism for maximizing teaching quality (Mandinach & Jimerson, 2021). Unlike urban or well-resourced schools where organizational systems and material resources can partially compensate for individual variability, rural settings place greater weight on teachers' self-directed professionalism.

The direct behavioral impact of discipline provides a third explanatory mechanism. Discipline operates proximally through daily teaching behaviors: classroom readiness, instructional time optimization, assessment consistency, and student engagement. These concrete behaviors immediately shape teaching performance, contrasting with more distal organizational factors that operate through intermediary processes. This proximal influence may account for discipline's powerful predictive capacity.

### **The Non-Significant Effect of Academic Supervision in Multivariate Models**

The finding that academic supervision shows significant bivariate correlation with performance ( $r = .574$ ,  $p < .01$ ) but no unique variance contribution in multiple regression ( $\beta = .027$ ,  $p = .797$ ) requires careful interpretation and challenges simplistic conclusions about supervision's irrelevance. Implementation Quality Hypothesis: Preliminary observations and informal teacher interviews revealed that supervision in Kedurang District predominantly follows administrative and compliance-oriented models rather than developmental coaching approaches. Supervisory visits typically involve checklist completion and documentation review rather than reflective dialogue, collaborative problem-solving, or evidence-based feedback (Mandinach & Jimerson, 2021). Research emphasizes that effective supervision requires transformational, developmental orientations focused on teacher growth through coaching, mentoring, and professional learning communities (Rismita et al., 2021). The current supervisory model may be insufficiently developmental to demonstrate measurable impact beyond what disciplined teachers already achieve through self-directed professionalism.

Mediation Hypothesis: An alternative interpretation suggests that supervision's effect is entirely mediated by teacher discipline. In this scenario, principals' supervisory practices influence teachers' professional commitment, responsibility, and self-regulation (discipline), which then directly drives teaching performance. This would explain why

supervision correlates with performance bivariately ( $r = .574$ ) but shows no unique contribution when discipline is controlled (Uusiku et al., 2025). The mediation hypothesis implies that supervision remains important but operates indirectly through fostering discipline rather than directly improving instructional techniques.

**Contextual Moderators:** Supervision effectiveness depends critically on multiple contextual factors: principal competence in instructional leadership, organizational culture supporting professional learning, teacher receptivity to feedback, and adequate time for meaningful supervisory engagement. Rural schools in developing regions face challenges in each domain: principals may lack specialized training in developmental supervision; organizational cultures may emphasize hierarchy over collaboration; teachers facing multiple responsibilities may have limited capacity for reflective practice; and resource constraints may limit supervision frequency and depth. These contextual constraints may explain why supervision fails to demonstrate the positive effects documented in better-resourced settings (Heffernan & Longmuir, 2019).

### **Comparison with Existing Literature**

The strong effect of teacher discipline aligns with organizational behavior literature demonstrating that professional self-regulation, intrinsic motivation, and commitment predict performance across diverse contexts students (Mandinach & Jimerson, 2021). Studies in various organizational settings have consistently shown that employees' intrinsic discipline and professional responsibility account for substantial variance in job performance, particularly in contexts requiring autonomous decision-making and self-direction. However, the non-significant effect of academic supervision in multivariate models contrasts with international research showing positive supervision effects approach (Saine et al., 2024).

This divergence likely reflects contextual moderators rather than fundamental theoretical contradictions. Supervision research from developed countries or urban settings typically involves principals trained in instructional leadership, organizational cultures emphasizing professional learning, and adequate resources supporting developmental approaches. These conditions differ markedly from rural Indonesian contexts where principals may lack specialized training, organizational cultures emphasize hierarchy, and resource constraints limit supervision quality.

Research on educational leadership in developing countries increasingly recognizes that leadership practices effective in Western contexts require substantial adaptation to local realities (Kartini et al., 2020). Our findings support this perspective, suggesting that while supervision holds theoretical promise, its empirical effectiveness depends on

implementation quality and contextual facilitators that may be absent in rural developing-country settings.

### **Contextual Factors in Rural Indonesia**

Several contextual factors help explain why these relationships manifest uniquely in rural Indonesian settings: Geographic Isolation: Kedurang District's remote location limits access to external professional development, university-based training, and educational networks. This isolation makes internal factors like teacher discipline more salient, as teachers cannot rely on external knowledge sources to enhance their practice.

Resource Scarcity: Limited instructional materials, outdated technology, and insufficient learning facilities force teachers to rely primarily on personal initiative and discipline. In better-resourced settings, organizational systems and material supports can partially compensate for individual variability; in Kedurang, teacher discipline becomes the primary determinant of quality.

Community Accountability: Rural communities' close-knit social structures create informal accountability systems that reinforce professional discipline. Teachers are highly visible community members whose behaviors are socially monitored, creating cultural pressure for discipline that may not exist in more anonymous urban settings.

Principal Capacity Constraints: Rural principals often lack specialized training in developmental supervision, transformational leadership, and instructional coaching (Hanayanti et al., 2023). Many were promoted based on seniority rather than leadership competence and receive limited ongoing professional development. This capacity gap may explain why supervision remains largely administrative rather than developmental.

Cultural Norms Around Authority: Indonesian culture traditionally emphasizes hierarchical relationships and respect for authority (*hormat*), which may shape how supervision operates. Teachers may respond to supervision with compliance behaviors rather than genuine professional growth, particularly when supervision is evaluative rather than supportive. This cultural dynamic could limit supervision's developmental impact.

Cross-Sectional Design: The correlational design prevents causal inference. While teacher discipline predicts performance, we cannot definitively establish that improving discipline causes better teaching (Lestari & Ahmad, 2025). Alternative explanations (e.g., high-performing teachers develop stronger discipline through success experiences) remain plausible. Longitudinal or experimental designs are necessary to establish causal direction.

**Self-Reported Data:** All measures relied on teacher self-reports, introducing potential common method bias. Social desirability may inflate discipline and performance ratings. Shared method variance could artificially strengthen observed relationships. Future research should incorporate objective performance measures (e.g., systematic classroom observations using validated protocols, student achievement growth data) and multi-source ratings (e.g., principal assessments, peer evaluations).

**Limited Generalizability:** Findings are specific to rural junior high schools in South Bengkulu with particular demographic, socio-cultural, and resource characteristics. Generalization to urban schools, better-resourced settings, different grade levels, or culturally distinct regions requires caution (Iku et al., 2022). Replication studies across diverse Indonesian provinces and other developing countries are needed to identify which findings reflect universal relationships versus context-specific dynamics.

**Unmeasured Variables:** The model explains 56.2% of variance, leaving 43.8% unexplained. Important predictors not measured include teacher competence (pedagogical knowledge, content expertise), self-efficacy beliefs, school climate dimensions (collegial support, administrative support), principal leadership quality beyond supervision, and student characteristics. Future research should develop more comprehensive models.

**Supervision Measurement Limitations:** Our supervision measure assessed perceived frequency and general quality but may not capture critical nuances determining effectiveness: developmental versus evaluative orientation, specificity of feedback, relational trust between principal and teachers, alignment with teachers' developmental needs, and follow-up consistency (Haenilah & Lampung, 2022).. Qualitative research examining supervision processes in depth could reveal why current practices fail to demonstrate measurable impact and identify improvement pathways.

**Statistical Considerations:** The identical  $R^2$  values for Models 2 and 3 (.562) suggest possible multicollinearity concerns despite acceptable VIF values. The moderate correlation between predictors ( $r = .574$ ) may indicate substantial shared variance, complicating interpretation of unique effects. Advanced statistical techniques (e.g., structural equation modeling, mediation analysis) could clarify relationships.

The implications of this study, For School Principals: 1) Prioritize Discipline Development: Implement systematic strategies to strengthen teacher discipline through professional identity development, collaborative goal-setting, peer accountability mechanisms, and recognition systems that reward professional commitment; 2) Transform Supervision Quality: Move beyond administrative compliance monitoring

toward developmental coaching. This requires training in reflective dialogue techniques, evidence-based feedback delivery, collaborative problem-solving, and adult learning principles; 3) Focus on Intrinsic Motivation: Recognize that supervision's primary value may lie in fostering intrinsic discipline and professional commitment rather than directly improving specific instructional techniques; and 4) Context-Sensitive Approaches: Acknowledge that effective supervision in rural resource-constrained settings may require different approaches than urban or well-resourced schools, emphasizing collegial support and collaborative learning given limited external resources.

For Educational Policymakers: 1) Professional Development for Principals: Develop targeted, sustained training programs for rural principals focusing on instructional leadership, developmental supervision approaches, coaching skills, and culturally responsive leadership practices; 2) Systemic Support for Discipline: Create policy frameworks, incentive structures, and recognition systems that reinforce teacher professionalism and intrinsic discipline throughout career trajectories; 3) Context-Appropriate Supervision Models: Design and disseminate supervision protocols appropriate for rural, resource-constrained settings rather than simply adapting urban-oriented models. These should emphasize peer collaboration, collective problem-solving, and efficient use of limited resources; 4) Longitudinal Professional Development: Recognize that improving supervision quality requires long-term investment in principal capacity rather than one-time training events.

For Teacher Education Programs: 1) Emphasize Professional Discipline: Integrate explicit attention to professional responsibility, time management, and intrinsic commitment into pre-service teacher education; 2) Prepare for Rural Contexts: Ensure teacher candidates develop capacities for self-directed professional learning, recognizing that rural placements may offer limited external support.

Future Research Directions: 1) Longitudinal Designs: Conduct multi-year studies tracking changes in supervision quality, teacher discipline, and performance over time to establish temporal precedence and test causal hypotheses; 2) Mediation Analysis: Employ structural equation modeling or path analysis to test whether supervision influences performance indirectly through mediating variables such as teacher discipline, professional commitment, or instructional self-efficacy; 3) Qualitative Investigation: Conduct in-depth interviews, focus groups, and ethnographic observations to understand how rural teachers conceptualize professional discipline, how they experience supervision, what specific supervisory practices they find helpful or unhelpful, and how cultural factors shape these dynamics; 4) Comparative Studies: Replicate this research across urban schools, different socioeconomic contexts, various provinces, and other developing countries to distinguish generalizable patterns from context-specific relationships (George, 2018). Compare findings with similar studies from

developed countries to identify cultural and economic moderators; 5) Intervention Research: Design and rigorously evaluate professional development programs targeting either supervision quality enhancement or teacher discipline strengthening. Randomized controlled trials or quasi-experimental designs could test causal hypotheses and identify effective improvement strategies; and 6) Multi-Level Analysis: Employ hierarchical linear modeling to examine school-level factors (e.g., organizational climate, resource availability, principal leadership) that moderate individual-level relationships between supervision, discipline, and performance.

#### **D. Conclusions**

This study investigated the effects of principals' academic supervision and teachers' discipline on teaching performance in rural Indonesian junior high schools. Key findings reveal that teacher discipline ( $\beta = 0.712$ ,  $p < .001$ ) is a strong, significant predictor explaining 56.2% of performance variance, while academic supervision shows no significant unique contribution ( $\beta = 0.027$ ,  $p = .797$ ) when controlling for discipline. These results suggest that in resource-constrained rural contexts, teacher discipline serves as the dominant proximal determinant of teaching quality, potentially compensating for limited organizational support and external professional development. The study contributes to educational leadership literature by demonstrating that established relationships between supervision and performance may operate differently in rural developing-country contexts, where implementation quality, resource availability, and cultural factors moderate theoretical effects. Practically, findings indicate that rural school improvement efforts should prioritize strengthening teacher professionalism and intrinsic discipline while simultaneously enhancing supervision quality through developmental, coaching-oriented approaches rather than administrative compliance monitoring. Future research should employ longitudinal designs to establish causality, qualitative methods to understand contextual mechanisms, and comparative studies across diverse settings to identify boundary conditions for these relationships. Educational policymakers must recognize that effective supervision requires not merely structural implementation but substantial investment in principal capacity-building and adoption of developmental rather than evaluative orientations.

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