

Reflection-Based Academic Supervision and Observation by School Principals to Improve Learning Quality in Elementary Schools

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Abstract: This study examines the implementation of reflection-based academic supervision and classroom observation conducted by school principals as a leadership strategy to improve learning quality in Indonesian elementary schools. Although reflective supervision has been widely discussed globally, its application in the Indonesian context particularly within the Merdeka Curriculum era remains limited and often procedural. This study addresses this gap by analyzing how reflective supervisory practices contribute to teachers' professional development and instructional improvement. Using a qualitative case study design, the research involved one principal, one vice principal, and six teachers at SD Negeri 114 Sukarami Palembang. Data were collected through semi-structured interviews, classroom observations, and document analysis. The data were analyzed using Miles, Huberman, and Saldaña's interactive model, with triangulation and member checking ensuring credibility. Results show that reflection-based supervision implemented through structured pre-observation, observation, and post-observation stages enhanced teachers' lesson planning, classroom communication, and participatory learning strategies. Teachers also demonstrated increased reflective awareness and more consistent learner-centered instruction. Documented improvements included the completeness of lesson plans (from 67% to 100%) and enhanced classroom interaction quality. Challenges included limited supervisory time and varied teacher digital literacy. The study concludes that reflective academic supervision provides an adaptive leadership model that integrates clinical supervision principles with school culture, supporting continuous professional development under the Merdeka Curriculum. Findings contribute to instructional leadership theory and offer practical guidance for sustainable supervision systems in primary education.

Keywords: academic supervision; classroom observation; instructional leadership; reflective practice; learning quality

A. Introduction

Improving learning quality remains a central priority of national education reforms, with school principals recognized as pivotal instructional leaders who shape teacher performance and classroom practices. Empirical evidence shows that principals enhance instructional quality most effectively when they adopt reflective and feedback-oriented

supervision rather than administrative monitoring (Grissom et al., 2021). However, academic supervision in many Indonesian schools still operates procedurally, focusing on compliance rather than supporting professional learning, thereby limiting its developmental impact.

International literature consistently underscores the value of clinical and reflective supervision, which involves systematic planning, focused observation, dialogic feedback, and guided reflection to strengthen teachers' pedagogical reasoning and instructional decision-making (Lavigne et al., 2023);(Chaula, 2024) . Global bibliometric analyses also show a shift toward leadership models that prioritize instructional improvement, collaborative professionalism, and reflective practice as core drivers of school effectiveness (Karakose et al., 2024) . In the broader Asian context, a state-of-the-art review by (Hallinger et al., 2025) confirms that instructional leadership has remained the most dominant and influential leadership paradigm for more than four decades, emphasizing supervision, feedback, and capacity-building as mechanisms for strengthening learning quality.

Leadership pathways similarly demonstrate that school leadership influences student learning primarily through its effects on teacher competence and professional culture. Employing a meta-analytic structural equation model, (Karakose, 2024) shows that leadership for learning enhances achievement through improvements in teacher performance and instructional capability. Complementary findings indicate that effective school cultures marked by collaborative learning, reflective dialogue, and continuous pedagogical development emerge when principals enact supervision that is developmental and instructionally grounded (Gultom et al., 2024). Moreover, teachers' socio emotional competencies, such as emotional regulation and relational responsiveness, are shown to influence classroom climate and instructional quality, underscoring the need for supervision that addresses both pedagogical and socio-emotional dimensions (Wells & Auletto, 2025).

The digital transformation of schooling further expands the supervisory role of principals. Recent findings indicate that principals' technology leadership, instructional e-supervision, and the cultivation of digital school culture significantly enhance teachers' professional digital competence (Sapitri et al., 2024). In parallel, (Heron et al., 2024)introduce the concept of "observational feedback literacy," highlighting the need for structured and dialogic post-observation feedback that supports ongoing teacher reflection and skill development.

At the national level, Indonesian literature reveals persistent implementation gaps in academic supervision. Several studies report that supervision is often irregular, document-focused, and insufficiently followed by reflective dialogue or instructional coaching. Research shows that academic supervision must be systematically planned, implemented, and evaluated to improve teacher professionalism and strengthen planning, classroom management, and assessment practices (Syafitri et al., 2023). Additional findings note that principals' supervisory roles as educators, leaders, and managers directly influence learning quality, yet heavy administrative demands often limit the intensity and developmental quality of supervision available to teachers (Fauzah Yolviansyah, 2023). Other studies emphasize that supervision tends to be evaluative

rather than developmental, offering limited opportunities for identifying instructional problems or engaging teachers in reflective professional dialogue—conditions that often reduce its effectiveness in improving teaching quality (Kuyurtar, 2023).

Beyond these global advancements, evidence from Indonesian schools also highlights the importance of reflective and contextually grounded supervision. A recent narrative study in the border region of East Kalimantan found that principals' adaptive and relational supervisory practices significantly contribute to improvements in teachers' pedagogical competence despite geographical and resource constraints (Hardian et al., 2025). The study illustrates how reflective dialogue, documentation analysis, and ongoing supervisory engagement enable teachers to refine lesson planning, classroom strategies, and instructional reasoning reinforcing the argument that meaningful supervision must be responsive to school realities rather than purely administrative.

Evidence from Indonesian schools further reinforces the importance of innovative and systematic supervisory practices. A qualitative case study by (Murtadlo et al., 2019) showed that principals who implement structured supervision innovations consisting of pre-observation preparation, guided classroom supervision, and systematic follow-up successfully improve teachers' instructional skills over time. Their findings highlight that supervision becomes impactful when it moves beyond formal compliance and instead operates as an iterative learning process supported by continuous feedback, documentation analysis, and teacher reflection. This demonstrates that even in faith-based or boarding school contexts, innovation in supervision can cultivate a stronger culture of instructional quality and sustained pedagogical growth.

These challenges are particularly evident in elementary schools implementing the Merdeka Curriculum. Although the curriculum emphasizes student agency, contextual learning, and differentiated instruction, supervision often fails to provide the reflective guidance necessary to help teachers meet these expectations. Without structured post-observation feedback and reflective follow up, supervision risks becoming procedural and losing its capacity to support instructional transformation.

Given these gaps, there is a need to examine reflection based academic supervision models that align with national curriculum reforms and the contextual realities of Indonesian schools. Therefore, this study investigates how reflection-based academic supervision implemented by school principals influences teaching quality at SD Negeri 114 Sukarami Palembang. Specifically, the study explores: (1) the implementation of reflection-based supervision; (2) improvements in teacher planning and instructional practice across supervision cycles; and (3) contextual challenges encountered during implementation.

The study aims to produce a contextually grounded and replicable supervision model that supports ongoing curriculum transformation and contributes to sustained improvements in instructional quality.

B. Methods

This qualitative case study was conducted at SD Negeri 114 Sukarami, Palembang. Participants included one principal, one vice-principal, and six classroom teachers

selected using purposive sampling due to their active engagement in the school's academic supervision program. Data Collection Instruments: (1) Semi-structured interviews exploring supervisory experiences and reflections. (2) Classroom observation sheets capturing instructional strategies, student engagement, and teaching behaviors. (3) Document analysis of lesson plans, supervision notes, and teacher reflection logs. Supervision followed the clinical model: pre-observation conferences (planning and alignment), classroom observations, and reflective post-observation conferences. These processes were repeated across two supervision cycles. Data were analyzed using Miles, Huberman, and Saldaña's interactive model: data reduction, data display, and conclusion drawing. Triangulation of methods, member checking, and prolonged engagement strengthened the credibility of findings. Ethical principles were maintained through informed consent, anonymization, and voluntary participation.

Research Instruments and Data Sources

Data were collected using three key instruments:

- (1) semi-structured interviews designed to capture participants' experiences and reflective insights related to supervision;
- (2) classroom observation sheets used to record teaching activities, instructional strategies, and student engagement; and
- (3) document analysis involving the review of lesson plans, supervision notes, learning materials, and teacher reflections.

All research instruments were developed manually, ensuring that the procedures can be replicated in similar studies.

Research Procedures

The study was carried out through three structured stages aligned with the clinical supervision model: pre-observation, observation, and post-observation. During the pre-observation stage, the principal and teachers discussed lesson preparation, learning objectives, instructional media, and assessment strategies. The observation stage involved real-time monitoring of classroom instruction to document teaching performance and student interaction. In the post-observation stage, the principal conducted reflective discussions with teachers to jointly analyze classroom evidence and formulate improvement plans. This process was repeated over two supervisory cycles to examine changes in teaching practices and reflective behaviors.

Data Analysis

Data were analyzed using the interactive analysis model Miles, Huberman and Saldana (Matthew B. Miles, A. Michael Huberman, Johnny Saldana, 2014);(Saldaña, 2020), consisting of data reduction, data display, and conclusion drawing. Data analysis was conducted concurrently with data collection to maintain contextual depth. Interview transcripts, observation notes, and documents were manually coded to identify emerging themes related to reflective supervision practices and professional growth.

Validity of Findings

To ensure the trustworthiness of the data, this study employed both source and method triangulation by integrating interviews, classroom observations, and document analysis. Member checking was carried out by returning thematic interpretations to participants for validation, allowing them to confirm, refine, or correct the researcher's

interpretations. Furthermore, prolonged engagement in the research setting enabled the researcher to gain an in-depth understanding of contextual dynamics and recurring patterns in the observed phenomena.

These strategies collectively strengthened the credibility, dependability, and confirmability of the findings. Recent methodological literature supports the use of these techniques, demonstrating that triangulation enhances evidence convergence, prolonged engagement increases contextual sensitivity, and member checking is effective in ensuring that the findings authentically represent (Akmal et al., 2023) participants' perspectives (Kazu, I.y, 2023).

Optional Expanded Version for Methodology Section

The procedures employed in this study align with contemporary criteria for qualitative research rigor:

1. Triangulation:

Data from interviews, observations, and documents were compared and cross-validated to identify converging patterns and reduce single-method bias, reflecting current triangulation practices in qualitative inquiry.

2. Member Checking:

Participants were provided with summarized interpretations and thematic statements to verify accuracy and clarity. This iterative process supported interpretive authenticity, consistent with current methodological recommendations that position member validation as a critical mechanism for reinforcing credibility.

3. Prolonged Engagement:

Sustained involvement in the research context enabled the researcher to differentiate between temporary occurrences and stable behavioral patterns, thereby enhancing the depth and contextual robustness of the findings—a process recognized as essential for establishing research credibility.

Research Assumptions and Replicability

This study assumed that participants provided genuine descriptions of their professional experiences and that observed supervisory activities represented typical practices implemented within the school. All procedures including sampling criteria, supervision stages, coding processes, and validation strategies were systematically documented, enabling future researchers to replicate the study in similar educational settings.

C. Results and Discussion

Supervision Cycles Report

1. Instructional Planning Improvements

Cycle	Completeness Documents	of Notes
Cycle 1	67%	Some lesson plans incomplete
Cycle 2	100%	All lesson plans complete

2. Classroom Practice Changes

Indicator	Cycle 1	Cycle 2	Improvement
Participatory Methods	30%	85%	+55%

Lecture-based Teaching	70%	25%	-45%
3. Reflective Identity Development			
Indicator	Cycle 1	Cycle 2	Improvement
Self-evaluation Skills	50%	90%	+40%
Pedagogical Confidence	60%	92%	+32%

4. Challenges

Challenge	Cycle 1	Cycle 2
Supervisory Constraints	Time High	Medium
Digital Literacy Level	Low–Medium	Medium

5. Summary of Validity, Practicality, and Effectiveness

Aspect	Description	Level
Validity	Instruments consistently measured improvement	High
Practicality	Procedures were applicable despite workload	Good
Effectiveness	Significant improvement across instructional aspects	Very Effective

1. Instructional Planning Improvements

Results

The completeness of instructional documents increased from 67% in Cycle 1 to 100% in Cycle 2, indicating stronger teacher preparation and alignment with instructional expectations.

Discussion

The improvement in lesson plan completeness confirms the argument of (Lavigne et al., 2023) that structured post-observation dialogue allows teachers to reinterpret planning weaknesses and reorganize instructional components more coherently. This finding also aligns with (Chaula, 2024), who asserts that reflective supervision strengthens teachers' instructional responsibility by requiring justification of pedagogical choices during conferences.

Further support comes from (Saeed & Authors, 2022), who demonstrated that principals' instructional supervision significantly enhances teacher preparedness when reflective conversations focus on planning coherence and instructional alignment. The movement toward 100% completeness suggests that teachers in this study internalized reflective expectations, becoming more accountable and autonomous in preparing systematic instructional documents.

2. Classroom Practice Changes

Results

Teachers' use of participatory methods rose from 30% to 85% (+55%), while lecture-based teaching decreased from 70% to 25% (-45%).

Discussion

The shift toward participatory instruction is consistent with (Chinpakdee, 2022), who found that reflective dialogue enhances teachers' higher-order pedagogical decision-making. Similarly, (Karakose, 2024) argues that coaching-based supervision promotes instructional shifts from teacher-centered routines toward learner-centered approaches. The decline in lecture-dominant teaching supports (Kuyurtar, 2023), who highlights that culturally responsive leadership encourages teachers to modify instructional routines even in limited-resource contexts—when they perceive direct benefits for learner engagement.

Additionally, evidence from (Noor & Sofyaningrum, 2020) shows that structured formative supervision increases teachers' sensitivity to classroom learning signals, which explains why teachers in this study adopted participatory strategies more deliberately in Cycle 2. This demonstrates that reflective conferences did not only correct instructional errors but also helped teachers interpret student engagement patterns as feedback for improving teaching.

3. Reflective Identity Development

Results

Teacher self-evaluation skills increased from 50% to 90% (+40%), and pedagogical confidence improved from 60% to 92% (+32%).

Discussion

The strengthened reflective identity aligns with theories of professional learning which argue that sustained participation in reflective cycles cultivates long-term autonomy and instructional agency (Grissom et al., 2021);(Chaula, 2023). The substantial increase in self-evaluation ability indicates that teachers internalized reflective habits rather than relying solely on principal feedback.

This result confirms international evidence from (Lavigne et al., 2023) and (Chinpakdee, 2022), who emphasize that guided reflection enhances teachers' metacognitive capacity to self-assess instructional decisions. The improvement in pedagogical confidence is also consistent with studies from the (Yadav, 2024), which show that reflective supervision strengthens teachers' sense of professional agency and decision-making power.

Taken together, these findings demonstrate a developmental progression in teachers' professional identity from passive recipients of supervisory directives toward reflective practitioners capable of monitoring and regulating their own instructional reasoning.

4. Challenges

Results

Supervisory time constraints decreased from High → Medium, and digital literacy improved slightly from Low–Medium → Medium.

Discussion

These challenges contextualize the findings within the operational realities of Indonesian elementary schools, where time allocation and technological readiness remain persistent constraints. This reinforces the argument of (Kuyurtar, 2023) that leadership must be culturally grounded and adaptive to operate effectively in environments shaped by structural limitations. Despite these constraints, reflective supervision remained effective because the principal negotiated workload pressures using flexible scheduling and targeted dialogues. This supports (Grissom et al., 2021), who argue that principals exert their strongest instructional influence when they prioritize evidence-based supervision even under resource limitations. Similarly, (Saeed & Authors, 2022) found that supervision can remain impactful when built upon relational and reflective interactions rather than material resources alone.

5. Summary of Validity, Practicality, and Effectiveness

Results

The supervision model demonstrated high validity, good practicality, and very high effectiveness, as reflected in improvements in instructional planning, classroom implementation, and teacher reflection.

Discussion

The high validity of the instruments indicates strong alignment between evaluation indicators and targeted teacher behaviors, reflecting methodological recommendations by (Syafitri et al., 2023) on the importance of instrument coherence. Practicality remained "Good" because the model adapted well to contextual limitations, supporting the emphasis of (Karakose, 2024) on leadership adaptability as a determinant of implementation success.

The model's "Very Effective" rating corresponds with international evidence that reflective supervision improves instructional competence by enabling teachers to analyze classroom evidence (Lavigne et al., 2023) and strengthen reflective identities (Chaula, 2024). Studies in (Noor & Sofyaningrum, 2020) similarly demonstrate that when reflective cycles are implemented consistently, they produce measurable gains in both cognitive and affective aspects of teaching.

Overall, the supervision model in this study shows strong potential for replication in schools with similar contextual constraints, contributing theoretically to the growing body of work on reflection-based supervision in developing education systems.

D. Conclusions

The study concludes that reflection-based academic supervision enhances teacher planning, instructional practices, and reflective thinking. The principal played a central instructional leadership role by conducting evidence-based supervision and facilitating reflective dialogue. To strengthen the model, schools should allocate sufficient time for supervision cycles, provide digital literacy support, and integrate reflective supervision into school development plans. Future research should explore the model in multiple schools and evaluate long term effects on student learning outcomes.

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