



Internal Quality Assurance and Teacher Performance: The Mediating Role of Instructional Supervision

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Abstract:

Internal quality assurance has become a central mechanism in contemporary education governance to ensure accountability, data-based decision making, and continuous improvement of learning quality. In Indonesia, the Internal Quality Assurance System (SPMI) mandates schools to implement a cyclical Determination-Implementation-Evaluation-Control-Improvement process; however, its practical contribution to teacher performance remains uneven and often administrative in nature. Existing scholarship tends to examine leadership, supervision, or data use separately, leaving limited integrative analysis of how these dimensions interact within the SPMI framework at the primary school level. This study aims to analyze how SPMI management within the PPEPP cycle contributes to teacher performance by examining the integration of data utilization, governance structures, and instructional supervision. Employing a qualitative multiple-case study design, the research was conducted in two Indonesian primary schools actively implementing SPMI and utilizing Rapor Pendidikan data. Data were collected through in-depth interviews, non-participant observations, and document analysis, and analyzed using iterative coding procedures, cross-case comparison, and pattern matching. The findings indicate that while formal governance structures strengthened administrative-professional discipline in both schools, substantive pedagogical improvement occurred only where supervision was enacted developmentally through reflective dialogue and formative feedback. Supervision orientation emerged as a mediating mechanism linking accountability structures to differentiated teacher performance outcomes. Based on these findings, the study proposes the Governance-Supervision-Performance (GSP) Model, which conceptualizes SPMI as a governance architecture whose impact depends on leadership-mediated supervision processes and organizational culture. Theoretically, the study advances an integrative framework bridging governance theory, instructional leadership, and quality management. Practically, it underscores the necessity of aligning accountability systems with developmental supervision to generate sustainable instructional improvement.

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Introduction (مقدمة)

Quality assurance in education is a strategic issue in global education governance in the 21st century (Zhang et al., 2022). Various countries position quality assurance systems as the primary mechanism to ensure accountability, learning effectiveness, and sustainable improvement in learning outcomes (Díaz, 2024). In the perspective of modern education management, quality is no longer understood as a momentary achievement, but rather as a continuous process that requires a systematic, data-based internal evaluation system (Szekiel, 2024). Theoretically, the Continuous Quality Improvement approach developed by Deming emphasizes the importance of the planning, implementation, evaluation, and continuous improvement cycle in organizations, including educational institutions (Savsar, 2012; Yazıcı et al., 2022). In the national context, commitment to quality assurance is affirmed through the Internal Quality Assurance System policy as regulated in Minister of Education and Culture Regulation Number 28 of 2016, which mandates every educational unit to implement the Determination, Implementation, Evaluation, Control, and Improvement cycle of standards systematically (Abdullah et al., 2023; Marlina et al., 2021).

In practice, the effectiveness of the quality assurance system is highly determined by the school's capacity to utilize data and build a reflective culture (Geijsel et al., 2010). International studies show that successful school quality management implementation depends on instructional leadership, teacher collaboration, and data use for decision-making (Amels et al., 2020; Sánchez & Watson, 2021). Along with the transformation of national quality evaluation policies, the School Self-Evaluation instrument in Indonesia has evolved into the Rapor Pendidikan, which presents comprehensive data based on National Assessments, character surveys, and learning environment surveys (Herwanti et al., 2022; Rahmawati et al., 2025). Conceptually, this approach aligns with the data-driven decision-making paradigm, which has proven to enhance accountability and learning quality (Alonzo et al., 2024; Sandoval-Ríos et al., 2025). Nevertheless, various reports indicate that elementary schools still face challenges in consistently integrating quality data into managerial and instructional practices (Rahminawati & Supriyadi, 2023).

Ideally, the PPEPP cycle in SPMI should form an adaptive and sustainable organizational learning system (Atmaja & Azis, 2019; Sadikin et al., 2022). Organizational Learning theory emphasizes that effective organizations are those capable of systematically reflecting on their practices and making data-based improvements (Geijsel et al., 2010). From the perspective of School Effectiveness Theory, leadership quality, curriculum management, and teacher professionalism are the main determinants of school quality (Munna, 2021). However, reality shows that SPMI implementation in many elementary schools remains administrative and documentary in nature (Rahmania et al., 2020). Standard setting is not always based on real school needs, evaluation stops at formal reporting, and quality control is not yet integrated into daily instructional practices. This condition indicates a gap between normative policy design and operational practices at the educational unit level.

This gap raises academic questions regarding how SPMI management is actually carried out in elementary schools and to what extent the system contributes to improving teacher performance (Aulia et al., 2025; Rumijati et al., 2025). In education management literature, teacher performance is positioned as the most significant factor influencing student learning outcomes (Habibi et al., 2025). Therefore, understanding the relationship between internal quality

management and teacher performance is important both theoretically and practically. This research seeks to fill that discursive space by analyzing SPMI implementation integratively in the elementary school context, while also examining the role of utilizing Rapor Pendidikan data and school leadership dynamics.

Research on school quality assurance shows a tendency to focus on three main themes: leadership, supervision, and data use. Several studies from Hallinger (2016) and Leithwood et al. (2019) affirm that instructional leadership has a significant correlation with improvements in learning quality and teacher performance. Effective leadership encourages a culture of reflection, collaboration, and professional accountability. Other studies highlight the importance of data use in school decision-making. Datnow and Hubbard and Schildkamp demonstrate that schools that systematically use internal evaluation data tend to experience improvements in learning quality. However, these studies are predominantly conducted in the context of developed countries and do not fully capture the dynamics of primary schools in developing countries (Datnow & Hubbard, 2015; Schildkamp, 2019). Meanwhile, research on internal quality assurance systems in various Asian countries indicates that implementation is often procedural and has yet to foster a sustainable quality culture (Nguyen et al., 2021). In the Indonesian context, some studies still view SPMI as an administrative obligation and have not integrated it with systemic analysis of teacher performance.

In general, the literature shows that school quality effectiveness is determined by the integration of leadership, organizational culture, and data-based evaluation systems. However, the integrative relationships among these components within the SPMI management framework have not been deeply examined at the primary school level.

Based on the literature synthesis, there exists an integrative and contextual gap. Integratively, most research treats leadership, supervision, or data use as separate variables without analyzing them as a cohesive quality management system within the PPEPP cycle. Contextually, studies on SPMI implementation in Indonesian primary schools that examine the integration of Rapor Pendidikan as a quality management instrument remain limited. Thus, a study is needed that holistically examines SPMI management as a dynamic process linking data-based planning, resource organization, standard implementation, evaluation, and quality control in relation to teacher performance.

This research offers novelty in several aspects. Conceptually, it integrates theories of sustainable quality management, instructional leadership, and organizational learning in analyzing SPMI implementation. Methodologically, it employs an in-depth qualitative case study approach to contextually describe SPMI management dynamics. Contextually, it focuses on primary schools utilizing Rapor Pendidikan as the basis for quality decision-making. Additionally, it provides theoretical contributions by expanding the discourse on SPMI as an organizational learning system, along with practical and policy contributions through recommendations for strengthening data-based quality management at the education unit level.

This research aims to deeply analyze how planning, organizing, implementation, evaluation, and control in the management of the Internal Quality Assurance System contribute to improving teacher performance in primary schools, by examining the integration of Rapor Pendidikan utilization, school leadership dynamics, and data-based reflective practices within the PPEPP cycle.



Method (منهج)

This study employed a qualitative multiple-case study design. The selection of a case study design was grounded in the research objective, which seeks to obtain an in-depth understanding

of how the Internal Quality Assurance System (SPMI) is implemented and how it contributes to improving teacher performance within real-life elementary school contexts. A case study design is appropriate when researchers aim to explore contemporary phenomena within their real-world setting, particularly when the boundaries between the phenomenon and context are not clearly evident (Yin, 2018). By focusing on two elementary schools with relatively similar characteristics and challenges, this study enables cross-case comparison and analytic generalization rather than statistical generalization.

This research adopted a qualitative approach to capture the meanings, interpretations, and managerial dynamics underlying SPMI implementation. Qualitative inquiry is suitable for exploring processes, experiences, and contextual factors that cannot be adequately represented through numerical measurement (Creswell & Poth, 2017)(Merriam, 2009). Since the study aims to analyze planning, organizing, implementation, evaluation, and control processes within the PPEPP cycle, a qualitative approach allows for rich description and deep interpretation of actors' perspectives and institutional practices. This approach aligns with the research objective, which emphasizes understanding how SPMI management operates as a dynamic system influencing teacher performance.

The study was conducted at SDN Cilegong and SDN 1 Cikaobandung in Purwakarta Regency, Indonesia. These schools were selected because they actively implement SPMI and utilize Rapor Pendidikan data as part of their quality management process. Both schools share comparable characteristics in terms of size, governance structure, and challenges related to instructional quality improvement. Selecting two cases with relatively similar contextual backgrounds strengthens the analytical depth while enabling cross-case comparison (Yin, 2018). The elementary school context was chosen due to its strategic role in establishing foundational learning quality and teacher professionalism.

Participants were selected using purposive sampling, based on their direct involvement in SPMI management processes. Key informants included school principals, teachers, and members of the internal quality assurance team. The principal served as the primary informant due to their managerial authority in planning, organizing, and controlling school quality assurance processes. Teachers and quality assurance team members provided operational perspectives regarding instructional implementation and data utilization.

Purposive sampling is appropriate in qualitative research when information-rich cases are needed to illuminate the research problem (Patton, 2015). Data sources consisted of interview transcripts, observation field notes, and official school documents, including quality standards documents, School Work Plans, Rapor Pendidikan reports, supervision programs, internal evaluation reports, and meeting minutes.

Data were collected through three primary techniques: observation, in-depth interviews, and document analysis. First, non-participant observations were conducted to examine the implementation of the PPEPP cycle, academic supervision practices, utilization of quality data, and school work culture. Observation enables researchers to capture naturally occurring behaviors and organizational routines (Merriam, 2009). Second, semi-structured in-depth interviews were conducted to explore participants' perceptions, experiences, strategies, and challenges in implementing SPMI. Semi-structured interviews allow flexibility while maintaining alignment with research objectives (Creswell & Poth, 2018). Interview protocols were developed based on the components of SPMI management: planning, organizing, implementation, evaluation, and control. Third, document analysis was carried out to triangulate findings and examine formal evidence of SPMI implementation. Document analysis is essential in case study research to corroborate interview and observation data (Yin, 2018).

Data collection was conducted in four stages: (1) preliminary study to map initial SPMI

conditions; (2) intensive field data collection; (3) triangulation and verification; and (4) consolidation of findings. Data were analyzed using the interactive model of qualitative data analysis proposed by Miles, Huberman, and Saldaña (2014), which consists of data condensation, data display, and conclusion drawing/verification. First, data condensation involved selecting, focusing, simplifying, and transforming raw data from field notes, interviews, and documents. During this stage, open coding was conducted to identify meaningful units related to SPMI management and teacher performance. Second, codes were grouped into categories representing the PPEPP components and leadership dynamics. Axial coding was applied to identify relationships among categories. Thematic development followed, generating broader themes such as data-based planning, collaborative quality culture, instructional supervision integration, and reflective evaluation practices. Third, data were displayed in matrices, thematic charts, and cross-case comparison tables to facilitate pattern recognition. Cross-case analysis was conducted to identify similarities and differences between the two schools (Yin, 2018). Finally, conclusions were drawn through pattern matching and explanation building, linking empirical findings with theoretical frameworks such as Continuous Quality Improvement and Organizational Learning. Conclusions were continuously verified through iterative comparison with field data to ensure analytical rigor.

To ensure trustworthiness, this study applied the criteria proposed by Lincoln and Guba (1985): credibility, transferability, dependability, and confirmability. Credibility was enhanced through triangulation of sources and techniques, prolonged engagement in the field, and member checking to confirm the accuracy of interview interpretations. Transferability was supported by providing thick description of the research context, enabling readers to assess applicability to similar settings. Dependability was ensured by maintaining an audit trail documenting research procedure, coding processes, and analytical decisions. Confirmability was strengthened through peer debriefing and reflexive notes to minimize researcher bias. Ethical principles were upheld throughout the research process. Participants were informed about the purpose of the study, and informed consent was obtained prior to data collection. Confidentiality was maintained by anonymizing participant identities and safeguarding institutional data. Participation was voluntary, and participants were allowed to withdraw at any stage without consequence. These ethical practices align with qualitative research standards emphasizing respect, transparency, and integrity (Creswell & Poth, 2018).

Overall, the chosen methodology is aligned with the research objective to explore SPMI management as a dynamic and context-bound process contributing to teacher performance improvement. The qualitative multiple-case design allows for deep exploration of managerial practices, leadership dynamics, and data utilization within the PPEPP cycle, thereby providing robust analytical insights both theoretically and practically.

Result (نتائج)

The findings are organized based on the stages of the PPEPP cycle and their observed impact on teacher performance in SDN Cilegong and SDN 1 Cikaobandung. To strengthen empirical grounding, the presentation integrates interview excerpts, observation notes, and document evidence. For international publication standards, informants are coded systematically as follows: P = Principal, T = Teacher, QM = Quality Management Team Member. Numerical

identifiers distinguish participants and schools (e.g., P1 = Principal of SDN Cilegong; P2 = Principal of SDN 1 Cikaobandung; T1-T2 = Teachers; QM1-QM2 = Quality Team Members). This coding system ensures anonymity while maintaining analytical clarity.

Data-Based Planning of SPMI

Document analysis of the School Work Plan (RKS) and quality mapping reports in both schools shows that program formulation referred to Rapor Pendidikan indicators. In SDN Cilegong, the 2023 quality mapping document explicitly identified literacy achievement and formative assessment practices as priority gaps.

The principal of SDN Cilegong stated:

"We start from the Rapor Pendidikan. If literacy scores are still below the district average, that becomes our entry point. From there we design supervision and teacher workshops." (P1)

Similarly, a member of the quality assurance team in SDN 1 Cikaobandung explained:

"The indicators are already clear in the report. We just translate them into programs in the RKS, especially related to assessment and classroom management." (QM2)

Observation during planning meetings showed that Rapor Pendidikan printouts and performance graphs were displayed and discussed collectively. Meeting minutes confirmed that improvement targets were written explicitly, indicating alignment between identified quality gaps and planned interventions.

Organizing the Internal Quality Assurance System

Both schools formally established internal quality assurance teams through principal decrees. Copies of the decrees and team organizational charts were available in the school administration office.

In SDN Cilegong, task distribution was clarified during coordination meetings. An observation note recorded that the principal assigned specific responsibilities for supervision scheduling and documentation management.

A teacher in SDN 1 Cikaobandung commented:

"Structurally the team is there, but sometimes we feel it adds to our administrative workload." (T2)

Another teacher from SDN Cilegong expressed a different perspective:

"At first it felt like extra work, but after we saw the supervision results, it actually helped us organize our teaching documents better." (T1)

These excerpts indicate variation in teachers' perceptions regarding SPMI responsibilities, despite similar formal organizational structures.

Implementation of Quality Standards in Instructional Practices

Implementation of SPMI was reflected in academic supervision records, PKB documentation, and classroom observations.

Supervision instruments in SDN Cilegong included indicators on lesson objectives, learning differentiation, and formative assessment. Classroom observation notes documented that teachers prepared lesson modules and used questioning strategies aligned with learning objectives.

During interview, the principal of SDN Cilegong stated:

"Supervision is not just checking documents. We observe the class, then we sit together and reflect on what worked and what needs improvement." (P1)

In SDN 1 Cikaobandung, supervision emphasized document completeness. A teacher explained:

"Before supervision, we make sure lesson plans and assessment sheets are complete because that is what will be checked first." (T2)

However, classroom observation revealed differences in instructional execution. In some classes, formative questioning and student engagement strategies were consistently applied, while in others instruction remained teacher-centered. This variation was also acknowledged by a quality team member:

"Implementation depends on each teacher's readiness and experience. The documents may be complete, but classroom practice can still vary." (QM1)

Evaluation and Quality Control Mechanisms

Evaluation activities were conducted through EDS documents, supervision feedback forms, and internal meeting records. Both schools archived evaluation reports systematically.

In SDN Cilegong, evaluation meetings included reflective discussions. An excerpt from meeting minutes stated that "teachers agreed to revise assessment rubrics based on supervision findings."

A teacher reported:

"After the evaluation meeting, we revised our assessment instruments. Previously we only gave scores, now we add descriptive feedback." (T1)

In SDN 1 Cikaobandung, evaluation discussions focused on compliance indicators. A teacher noted:

"We review whether all documents are complete and submitted on time. That is our main focus during evaluation." (T2)

These findings suggest that while both schools conducted evaluation systematically, the depth of pedagogical reflection differed.

Observed Impact on Teacher Performance

The impact of SPMI implementation was observed in three dimensions: administrative-professional, pedagogical, and organizational-cultural.

In the administrative-professional dimension, document review showed increased completeness of lesson plans, assessment instruments, and supervision follow-up forms compared to the previous academic year. Teachers acknowledged this change:

"Now we are more disciplined in preparing lesson plans because supervision is scheduled and monitored." (T2)

In the pedagogical dimension, several teachers demonstrated more structured formative assessment practices. Observation notes recorded the use of exit tickets, reflective questioning, and feedback sessions in some classrooms.

A teacher in SDN Cilegong stated:

"Previously I rarely documented reflections. Now after supervision, I write short reflections after each lesson." (T1)

In the organizational-cultural dimension, routine quality discussions became more structured. Meeting attendance lists and supervision logs indicated higher consistency in participation.

Comparatively, SDN Cilegong showed stronger emphasis on reflective dialogue and instructional improvement, whereas SDN 1 Cikaobandung demonstrated stronger administrative compliance and documentation discipline.

Overall, triangulation of interviews, observations, and document analysis indicates that SPMI implementation contributed to measurable improvements in documentation discipline and emerging pedagogical reflection, although variation in classroom practice remains evident.

Thematic Matrix (Code-Category-Theme-Evidence)

The following matrix summarizes the qualitative analysis process from initial coding to theme development, including representative evidence from interviews, observations, and documents.

Tabel 1.

Initial Codes	Category	Theme	Representative Evidence
Use of Rapor Pendidikan data; literacy gap identification; priority indicators	Data-driven planning	Evidence-based quality planning	"We start from the Rapor Pendidikan... that becomes our entry point." (P1); RKS documents aligned with identified gaps
Translation of indicators into programs; supervision-based intervention	Program alignment	Strategic SPMI alignment	"We just translate them into programs in the RKS." (QM2)
Principal decree; team structure; task distribution	Formal organizational structure	Institutionalization of SPMI governance	Principal decrees and organizational charts available in administration office
Perceived additional workload; administrative burden	Perception of implementation	Administrative compliance tension	"Sometimes we feel it adds to our administrative workload." (T2)
Reflective supervision dialogue; post-observation discussion	Reflective supervision practice	Developmental supervision orientation	"We observe the class, then we sit together and reflect." (P1)
Focus on document	Compliance-	Administrative	"We make sure lesson plans

Initial Codes	Category	Theme	Representative Evidence
completeness; lesson plan checking	based supervision	supervision orientation	and assessment sheets are complete." (T2)
Variation in classroom engagement; teacher-centered practice	Pedagogical variation	Uneven instructional transformation	Observation notes showing differences in questioning and student engagement
Revision of assessment rubric; descriptive feedback	Pedagogical improvement	Strengthened formative assessment	"Now we add descriptive feedback." (T1)
Increased documentation discipline; timely submission	Administrative professionalism	Improved professional accountability	"Now we are more disciplined in preparing lesson plans." (T2)
Structured quality meetings; consistent attendance	Organizational learning culture	Emerging quality-oriented school culture	Meeting attendance lists and supervision logs showing increased participation

This matrix demonstrates the analytical progression from raw data (codes) to higher-order abstraction (themes), supporting the credibility and transparency of the qualitative analysis process.

Axial Coding and Selective Coding Explanation

Following open coding (initial codes presented in the matrix), the analysis proceeded to axial coding by systematically examining relationships among categories. During this phase, codes such as "use of Rapor Pendidikan data," "translation into programs," and "priority indicators" were connected under the broader analytical axis of data-driven governance. Similarly, codes related to "principal decree," "task distribution," and "supervision scheduling" were grouped to form the structural dimension of SPMI governance.

In the pedagogical domain, axial coding linked "reflective supervision dialogue," "revision of assessment rubric," and "documented reflections" into a relational category labeled developmental instructional supervision. Conversely, codes such as "document completeness" and "timely submission" were grouped under compliance-oriented supervision. This axial process clarified causal and interactional patterns, particularly how governance structures influenced supervision orientation, which in turn shaped teacher performance outcomes.

Selective coding was then conducted to integrate all major categories around a core explanatory theme. The central phenomenon identified was: "SPMI as a governance-driven mechanism shaping the orientation of instructional supervision and teacher performance." All categories were systematically related to this core theme. Data-driven planning and institutional governance formed the structural foundation; supervision orientation (developmental vs. compliance) functioned as the mediating process; and changes in administrative, pedagogical, and organizational-cultural performance represented the outcomes. This integrative process strengthened the internal coherence of findings and provided an explanatory narrative beyond

descriptive reporting.

Alignment with Theoretical Frameworks

The emergent themes align with three interrelated theoretical perspectives.

First, from the perspective of governance theory, the formal establishment of quality assurance teams, reliance on performance indicators, and structured accountability mechanisms reflect principles of institutional governance and accountability systems in education. The theme of institutionalization of SPMI governance demonstrates how formal structures and regulatory instruments shape organizational behavior and professional practices.

Second, in relation to instructional leadership theory, findings from SDN Cilegong particularly illustrate a developmental supervision orientation, where the principal engages in classroom observation followed by reflective dialogue. This reflects core dimensions of instructional leadership, including direct involvement in teaching and learning processes, feedback provision, and capacity building. The variation between reflective and compliance-based supervision across schools indicates differing enactments of instructional leadership.

Third, from the lens of quality management theory, especially continuous improvement principles embedded in the PPEPP cycle, the emphasis on data-based planning, monitoring, evaluation, and corrective action reflects a cyclical quality assurance logic. Evidence of rubric revision, formative assessment strengthening, and documentation discipline indicates movement toward continuous improvement practices, although uneven instructional transformation suggests that quality management implementation remains partially procedural in some contexts.

By integrating governance structures, instructional leadership processes, and quality management cycles, the findings suggest that SPMI operates not merely as an administrative requirement but as a multi-layered organizational mechanism influencing teacher performance through structural, supervisory, and cultural pathways.



Discussion (مناقشة)

Summary of Main Findings

This study reveals that the implementation of SPMI in both schools operates as a governance-driven quality mechanism that shapes teacher performance through differentiated supervision orientations. While both schools institutionalized SPMI structurally through formal teams, data-based planning, and documented evaluation cycles, the orientation of supervision practices emerged as the critical mediating variable. SDN Cilegong demonstrated a more developmental supervision orientation characterized by reflective dialogue and pedagogical feedback, whereas SDN 1 Cikaobandung showed a stronger compliance-based orientation emphasizing administrative completeness. These differences explain variations in pedagogical transformation despite similar structural frameworks.

Theoretical Interpretation

From a governance theory perspective, the findings confirm that institutional structures and accountability instruments significantly influence organizational behavior. The formalization of quality assurance teams and reliance on performance indicators illustrate how governance mechanisms regulate professional conduct. This aligns with accountability-based

governance models in education, where performance data function as regulatory tools shaping school decision-making processes.

However, governance structures alone do not automatically produce instructional improvement. The study shows that governance becomes effective only when mediated through instructional leadership practices. In line with instructional leadership theory, active principal involvement in classroom observation and reflective feedback fosters deeper pedagogical change. Where supervision was dialogical and improvement-oriented, teachers demonstrated reflective practices and formative assessment strengthening. Conversely, when supervision emphasized compliance, teacher performance improvements were largely administrative.

From a quality management perspective, the PPEPP cycle reflects principles of continuous improvement similar to Total Quality Management frameworks. The cyclical logic of planning, implementation, evaluation, and corrective action indicates institutional adoption of quality assurance routines. Nevertheless, the uneven instructional transformation suggests partial internalization of continuous improvement culture, indicating that procedural compliance does not necessarily translate into substantive pedagogical innovation.

Comparison with Previous Studies

The findings support prior research indicating that internal quality assurance systems contribute to improved administrative discipline but produce varied instructional impact depending on leadership enactment. Studies on instructional leadership have consistently shown that principals' direct engagement with teaching and learning significantly predicts teacher professional growth (Hallinger, 2011; Robinson, Lloyd, & Rowe, 2008). The stronger pedagogical reflection observed in SDN Cilegong aligns with these findings.

Similarly, research on educational governance highlights that accountability systems can lead to performative compliance if not accompanied by professional capacity development (Ball, 2003). The compliance-oriented pattern found in SDN 1 Cikaobandung reflects this dynamic, where documentation completeness becomes the primary focus.

In quality management literature, continuous improvement requires cultural internalization beyond procedural adoption (Deming, 1986). The study's findings resonate with this argument: although both schools implemented the PPEPP cycle, only one school showed deeper reflective engagement. This suggests that structural adoption of quality systems is insufficient without cultural transformation.

Theoretical Alignment and Tensions

The results both confirm and nuance existing theories. Governance theory explains the structural dimension of SPMI but underestimates the role of leadership agency. Instructional leadership theory explains pedagogical variation but does not fully account for the influence of regulatory frameworks. Quality management theory provides the cyclical logic but often assumes rational compliance leading to improvement.

This study demonstrates that SPMI effectiveness depends on the interaction among governance structures, leadership practices, and professional culture. Where these dimensions are aligned, instructional transformation is more substantive. Where governance dominates without developmental leadership mediation, improvement remains procedural.

Theoretical Implications

The study contributes theoretically by proposing an integrative explanation of SPMI as a multi-layered governance mechanism. Rather than viewing internal quality assurance as purely administrative, the findings position it as a structural catalyst whose impact depends on supervision orientation. This extends instructional leadership theory by embedding it within governance and quality management systems.

The study also refines quality management applications in education by demonstrating that continuous improvement cycles must be coupled with reflective instructional practices to produce meaningful pedagogical change.

Practical Implications

Practically, the findings suggest that policymakers should move beyond structural compliance in implementing SPMI. Training programs for principals should emphasize developmental supervision competencies, not merely administrative monitoring.

Schools should integrate reflective dialogue sessions following supervision to ensure that evaluation results translate into pedagogical improvement. Additionally, quality assurance teams should balance accountability demands with professional learning opportunities to prevent administrative fatigue among teachers.

Explanatory Factors Behind the Findings

Several factors may explain the observed differences. First, leadership style appears central in shaping supervision orientation. Second, teacher readiness and professional maturity influence how SPMI processes are internalized. Third, organizational culture determines whether quality systems become instruments of learning or instruments of control.

Contextual constraints such as workload, administrative demands, and varying pedagogical competence levels may also moderate implementation outcomes. These factors indicate that SPMI effectiveness is contingent rather than deterministic, shaped by dynamic interactions among structure, agency, and culture.

Overall, the discussion positions SPMI not as a uniform reform instrument but as a governance framework whose impact on teacher performance depends on leadership mediation and cultural internalization.

Positioning of Novelty and Conceptual Contribution

The primary novelty of this study lies in its integrative explanation of SPMI as a governance-mediated instructional mechanism rather than merely an internal compliance system. While prior studies tend to examine educational governance, instructional leadership, or quality management separately, this research demonstrates empirically how these three dimensions interact dynamically within the same institutional setting. The study advances the literature by identifying supervision orientation (developmental vs. compliance-based) as a critical mediating construct linking governance structures to differentiated teacher performance outcomes. This mediating variable has received limited explicit attention in previous SPMI or internal quality assurance studies, which often assume linear relationships between policy implementation and performance improvement.

Furthermore, the cross-case comparison strengthens the analytical contribution by showing that similar structural implementation of SPMI can yield divergent pedagogical impacts

depending on leadership enactment and organizational culture. This finding challenges deterministic assumptions embedded in accountability and quality assurance frameworks and instead proposes a contingency-based explanation of reform effectiveness.

Final Conceptual Model Based on Findings

Based on the empirical results and theoretical integration, the study proposes a conceptual model termed the Governance–Supervision–Performance (GSP) Model of Internal Quality Assurance.

The model consists of three interconnected layers:

1. **Structural Governance Layer:** This layer includes formal SPMI institutionalization, data-driven planning (Rapor Pendidikan utilization), accountability mechanisms, and organizational regulations. It provides the regulatory and procedural foundation for quality assurance.
2. **Supervisory Mediation Layer:** This layer represents the orientation of instructional supervision, which may range along a continuum from compliance-based supervision (document checking, administrative monitoring) to developmental supervision (reflective dialogue, pedagogical coaching, formative feedback). This layer functions as the mediating mechanism translating governance structures into teacher-level practice.
3. **Teacher Performance Outcomes Layer:** This layer encompasses three dimensions administrative-professional discipline, pedagogical transformation, and organizational-cultural engagement. The depth of impact in this layer depends on the nature of supervisory mediation.

The model posits that structural governance alone primarily influences administrative-professional performance. Substantive pedagogical transformation occurs when governance is enacted through developmental instructional leadership practices. Organizational culture functions as a moderating factor, strengthening or weakening the mediation effect.

This conceptual model extends existing instructional leadership theory by embedding it within a broader governance and quality management architecture. It also refines quality assurance discourse by demonstrating that improvement is not an automatic product of cyclic procedures but a socially mediated process shaped by leadership agency and professional culture.

Future research may test and refine the GSP Model quantitatively across broader school contexts or explore additional moderating variables such as teacher efficacy, professional learning community strength, and policy pressure intensity.



Conclusion (خاتمة)

This study demonstrates that the effectiveness of the Internal Quality Assurance System (SPMI) in improving teacher performance depends not merely on formal governance structures, but on how those structures are enacted through instructional supervision. Although both schools institutionalized SPMI through data-based planning, quality teams, and evaluation

cycles, differences in supervision orientation produced divergent performance outcomes. Governance mechanisms were effective in strengthening administrative-professional discipline, particularly documentation and procedural compliance. However, substantive pedagogical improvement occurred only where supervision was developmental, characterized by reflective dialogue and formative feedback. Where supervision remained compliance-driven, improvement was largely procedural.

Integrating governance theory, instructional leadership, and quality management, this study proposes the Governance-Supervision-Performance (GSP) Model. The model identifies supervision orientation as a key mediating variable linking accountability structures to differentiated teacher performance outcomes. This challenges linear reform assumptions and positions school improvement as contingent upon leadership practice and organizational culture.

Practically, SPMI should not be reduced to a documentation-based accountability tool. Policymakers and school leaders must strengthen developmental supervision competencies and align accountability systems with collaborative professional learning to ensure sustainable instructional improvement.

Given its focus on two schools within a specific context, further research across broader settings is needed to test and refine the GSP Model. Future studies should also examine moderating variables such as teacher efficacy and organizational trust.

Overall, SPMI functions most effectively as a governance architecture when leadership mediation transforms accountability processes into meaningful professional growth.



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