

Beyond Resource Constraints: How Participatory Management Practices Foster Teacher Pedagogical Competence

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Abstract

Educational quality in integrated junior high schools operating under severe resource constraints remains critically dependent on effective principal management, yet systematic understanding of how principals successfully foster teacher pedagogical competence development in such contexts remains limited. This study examined principal management practices in improving teacher pedagogical competence at integrated junior high schools through planning, organizing, actuating, and controlling functions. A qualitative case study approach was employed at two purposively selected integrated junior high schools in Purwakarta Regency, Indonesia. Data were collected through in-depth interviews with 18 participants (principals, vice principals, teachers, and students), participant observation, and document analysis. Data analysis followed Miles, Huberman, and Saldaña's interactive model, with triangulation ensuring credibility. Findings revealed substantial differences between schools despite similar resource limitations. SMPN Satu Atap Cileunca's participatory planning, distributed organizational structures, systematic implementation, and documented evaluation fostered greater teacher agency and professional development compared to SMPN Satu Atap Panyindangan's centralized, informal approach. Key differentiating factors included collaborative planning processes, peer learning structures, consistent supervisory practices, and systematic documentation. Management effectiveness in resource-constrained contexts depends fundamentally on participatory, adaptive approaches rather than resource abundance. Strategic management practices emphasizing collaboration and systematic improvement can successfully cultivate teacher pedagogical competence even under severe constraints, challenging deficit-oriented perspectives and offering actionable guidance for principals, supervisors, and policymakers in developing contexts.

INTRODUCTION

The quality of education in Indonesia continues to face persistent challenges, particularly in ensuring effective pedagogical practices across diverse educational contexts. Recent assessments reveal concerning trends, with more than three-quarters of 15-year-old Indonesian students failing to meet minimum proficiency levels in mathematics and reading (OECD, 2023), underscoring critical gaps in teaching quality and instructional effectiveness (Irnidayanti & Fadhilah, 2023). This issue becomes particularly acute in schools operating under resource constraints, where the gap between policy aspirations and implementation realities remains substantial. Among these contexts, integrated junior high schools (SMP Satu Atap) present unique challenges, as they were specifically established to expand educational access in remote, frontier, and disadvantaged areas.

The pedagogical competence of teachers encompasses multiple dimensions, including the ability to design learning experiences responsive to student characteristics, implement varied instructional strategies, and conduct systematic evaluation. However, empirical evidence suggests that pedagogical competence among Indonesian teachers remains inadequate (Azizah et al., 2024), with many educators struggling to develop contextually appropriate instructional materials and master diverse

teaching methodologies (Rachmadtullah et al., 2025). Traditional instructional approaches emphasizing rote memorization over critical thinking development (Faisal & Martin, 2019) result in monotonous learning experiences that fail to maximize student potential.

The role of school principals in addressing these challenges has attracted considerable scholarly attention. Research has established that effective school leadership constitutes a critical determinant of teacher professional development (He et al., 2024; Li et al., 2023) and student learning outcomes (Darling-Hammond & McLaughlin, 2013). Studies demonstrate that principals who exercise instructional leadership can significantly enhance teacher competence even within challenging contexts (Hudson, 2024). Collaborative learning communities facilitated by effective school leadership prove particularly beneficial in fostering continuous teacher improvement (DuFour et al., 2008). However, the managerial dimensions of principal leadership, particularly in schools facing multidimensional constraints, remain insufficiently explored.

Existing research has predominantly focused on principal leadership in conventional school settings with relatively adequate resources. A significant gap persists in understanding how school principals navigate the complex task of improving teacher pedagogical competence in integrated junior high schools. These institutions operate under conditions markedly different from mainstream establishments, simultaneously addressing limited physical facilities, insufficient teaching staff, inadequate instructional resources, and socioeconomic complexities. Rural schools in developing countries face significant challenges including minimal infrastructure (World Bank, 2018), high teacher turnover (Mulkeen, 2010), recruitment difficulties, and limited resources (Hardman & Sandi, 2024; National Rural Education Association, 2023). In Indonesia specifically, a projected deficit of 1.3 million teachers by 2024 (Tanoto Foundation, 2023) further exacerbates these challenges, requiring principals to exercise adaptive management strategies that extend beyond conventional administrative frameworks (Su, 2024).

This study addresses this gap by examining principal management practices in improving teacher pedagogical competence at SMP Satu Atap schools through the lens of management functions. Specifically, this research applies the framework of planning, organizing, actuating, and controlling (Terry, 2016; Robbins, 2018) to analyze how principals navigate resource constraints while fostering teacher professional growth. Research indicates that 80.88% of educational institutions utilize these management functions for academic performance improvement (Narindro et al., 2020), yet their application in resource-constrained settings requires contextualized understanding.

The significance of this research operates on multiple levels. Theoretically, it contributes to educational management scholarship by extending understanding of leadership effectiveness in resource-constrained environments. Practically, the findings offer actionable guidance for principals, education supervisors, and policymakers seeking to enhance educational quality in similar settings, illuminating viable pathways for professional development where traditional training mechanisms remain inaccessible.

METHODS

This study employed a qualitative approach with a case study design to examine principal management practices in improving teacher pedagogical competence within integrated junior high schools. This methodological choice was deemed appropriate as case study research enables intensive, contextualized investigation of contemporary phenomena within real-life settings, particularly when boundaries between phenomenon and context are not clearly evident (Yin, 2018). The case study approach facilitates comprehensive understanding of how school principals navigate resource constraints while implementing management functions to enhance teacher professional development, thereby aligning with the study's objective to describe and analyze planning, organizing, actuating, and controlling processes in integrated school contexts.

The research was conducted at two purposively selected integrated junior high schools in Purwakarta Regency, West Java, Indonesia: SMPN Satu Atap Cileunca and SMPN Satu Atap

Panyindangan. These sites were selected based on specific criteria including their classification as integrated schools serving remote areas, operational experience of at least five years, willingness of school leadership to participate, and accessibility for sustained fieldwork. Research participants were selected through purposive sampling technique to ensure information richness and relevance to the research questions (Patton, 2015). Participants comprised school principals, vice principals for curriculum affairs, classroom teachers across different subject areas, and selected students, totaling 18 individuals who could provide comprehensive perspectives on principal management practices and their impacts on pedagogical competence development.

Data collection employed multiple methods to ensure comprehensive capture of the phenomenon under investigation. In-depth semi-structured interviews served as the primary data collection technique, allowing exploration of participants' experiences, perceptions, and understandings regarding principal management strategies and teacher competence development (Braun & Clarke, 2021). Interview protocols were developed based on the theoretical framework of management functions, addressing planning processes, organizational structures, implementation strategies, and evaluation mechanisms. Participant observation complemented interview data by enabling direct documentation of management practices, supervisory activities, teacher meetings, and classroom interactions in natural settings (Flick, 2022). Field notes recorded observational data systematically, capturing both verbal and non-verbal behaviors relevant to the research focus. Document analysis constituted the third data collection method, examining institutional documents including school work plans (RKS/RAKS), supervision schedules, meeting minutes, teacher development programs, evaluation reports, and performance assessments. These documents provided contextual background and corroborative evidence for interview and observation data.

To ensure trustworthiness and credibility of findings, multiple validation strategies were implemented throughout the research process. Triangulation was employed across data sources, methods, and investigators to cross-verify information and enhance internal validity (Denzin, 2017). Source triangulation involved comparing data obtained from different participant categories, while methodological triangulation entailed comparing interview data with observations and document analysis. Member checking procedures were conducted whereby preliminary findings were shared with key participants to verify accuracy of interpretations and reduce researcher bias (Lincoln & Guba, 1985).

Data analysis followed Miles, Huberman, and Saldaña's (2014) interactive model, consisting of three concurrent flows: data condensation, data display, and conclusion drawing and verification. Data condensation involved systematically organizing raw data through coding, categorizing, and summarizing interview transcripts, field notes, and documents. Initial codes were developed inductively from the data while remaining sensitive to the theoretical framework of management functions. Data display utilized matrices, charts, and narrative descriptions to organize condensed information, facilitating pattern recognition and relationship identification across cases. Conclusion drawing involved progressive interpretation of patterns, themes, and relationships, with continuous verification against raw data to ensure findings remained grounded in empirical evidence. This iterative analytical process enabled systematic comparison between the two case study sites, revealing both convergent and divergent management practices in relation to teacher pedagogical competence improvement.

RESULTS AND DISCUSSION

Results

This section presents findings from the comparative case study of principal management practices at SMPN Satu Atap Cileunca and SMPN Satu Atap Panyindangan, organized according to the POAC management framework. Data are presented through triangulated evidence from interviews, observations, and document analysis to address the research questions regarding how principals plan,

organize, implement, and evaluate teacher pedagogical competence development in resource-constrained settings.

Planning Practices

Analysis of planning documents and interview data revealed substantial differences between the two schools in their approach to teacher development planning. At SMPN Satu Atap Cileunca, the principal adopted a participatory planning approach characterized by collaborative document preparation involving all teaching staff. Interview data with the principal revealed this process: "We begin each academic year with deliberation forums where teachers contribute to identifying their professional development needs. This input directly shapes our supervision schedules and in-house training programs." Document analysis corroborated this claim, as the school's annual work plan (RKS) contained detailed sections explicitly addressing teacher pedagogical competence enhancement, including specific strategies for implementing active learning methodologies and assessment diversification.

In contrast, planning at SMPN Satu Atap Panyindangan demonstrated a more centralized, administrative character. While the principal prepared annual plans and supervision schedules, document analysis revealed these were integrated into general administrative work plans without specific focus on pedagogical competence development. The vice principal for curriculum confirmed: "Initially, supervision schedules were determined by the principal alone. While we now have input opportunities, the planning process remains primarily top-down." This finding was reinforced through observation of a planning meeting where teacher participation was limited to receiving information rather than contributing substantively to decision-making processes.

An unexpected finding emerged regarding temporal considerations in planning. Both schools struggled with reconciling mandated administrative timelines with teachers' actual professional development needs. At Cileunca, the principal attempted to address this through quarterly review mechanisms, whereas Panyindangan's planning remained rigid throughout the academic year, limiting responsiveness to emerging teacher development needs.

Organizational Structures

Organizational analysis revealed distinct patterns in how principals structured responsibilities and resources to support teacher development. At SMPN Satu Atap Cileunca, the principal established clear delegation of supervisory responsibilities. Observation data documented the vice principal for curriculum conducting classroom observations alongside the principal, with subsequent division of follow-up responsibilities. Interview data with the vice principal illustrated this collaborative structure: "The principal involves me directly in supervision planning and implementation. We divide responsibilities based on subject expertise, ensuring teachers receive informed feedback."

Resource organization at Cileunca demonstrated creativity despite limitations. Document analysis of facility usage schedules revealed a systematic rotation system for shared equipment. Field notes documented teachers accessing two projectors through an organized booking system, with the principal personally facilitating equipment transport between buildings when necessary. This adaptive organizational approach extended to internet connectivity challenges, with the principal establishing designated Wi-Fi access periods to ensure equitable distribution of limited bandwidth for online professional development activities.

Organizational patterns at SMPN Satu Atap Panyindangan reflected greater centralization. Interview data with teachers revealed that the vice principal's role was largely confined to administrative reminders regarding supervision schedules. Observational data confirmed limited delegation, with the principal personally managing most aspects of teacher supervision and development. Resource constraints were more acutely felt, with facility limitations described by one teacher as "requiring us to prepare learning media independently without consistent institutional support."

A noteworthy finding concerned communication structures. While both schools held regular meetings, their character differed substantially. At Cileunca, observation of a teacher meeting revealed open dialogue with teachers proposing collaborative solutions to shared challenges. Conversely, meetings at Panyindangan primarily involved information dissemination from the principal to teachers, with limited horizontal communication among teaching staff.

Implementation Strategies

Implementation analysis revealed differentiated approaches to actualizing teacher development initiatives. At SMPN Satu Atap Cileunca, supervision followed a structured dual pattern combining formal semester-based evaluations with monthly informal observations. Document analysis of observation instruments revealed systematic focus on pedagogical elements including instructional variety, student engagement strategies, and assessment practices. Interview data with a teacher illustrated the feedback process: "After observation, the principal discusses findings individually, highlighting specific strengths and areas for improvement. These conversations feel developmental rather than evaluative."

The principal at Cileunca employed multiple implementation strategies to foster pedagogical innovation. Observation data documented a peer teaching session where experienced teachers demonstrated active learning techniques for colleagues. Interview data revealed this represented part of a systematic mentoring program: "We pair experienced teachers with those struggling with specific pedagogical aspects. This peer learning approach helps overcome resource limitations." Document analysis confirmed regular scheduling of such collaborative learning activities within the school's professional development calendar.

Implementation at SMPN Satu Atap Panyindangan exhibited less consistency, though individual mentoring received emphasis. The principal described his approach: "Given our limited resources, I focus on direct, personal guidance. I conduct classroom observations as possible and provide immediate verbal feedback." However, interview data with teachers revealed variability in implementation: "Supervision occurs irregularly, sometimes months apart, making systematic improvement difficult." Observation data documented one classroom supervision session where the principal provided constructive feedback, though no documented observation instrument was employed, raising questions about systematic tracking of teacher development over time.

An unexpected implementation finding concerned teacher motivation differences. At Cileunca, teachers demonstrated greater engagement with professional development initiatives, attributed by the principal to the participatory planning process creating ownership. Conversely, at Panyindangan, several teachers expressed resignation regarding professional development: "We've adapted to limitations and continue teaching as we always have." This motivational difference significantly influenced implementation effectiveness across sites.

Evaluation Mechanisms

Evaluation practices exhibited the most substantial differences between schools. At SMPN Satu Atap Cileunca, evaluation followed a systematic, documented approach. Document analysis revealed detailed evaluation reports comparing planned activities with outcomes, identifying specific areas where teachers demonstrated improvement or continued challenges. The principal described the evaluation process: "We hold reflective meetings quarterly where we collectively assess progress. Teachers share successes and challenges, and we adjust our support strategies accordingly." Observation of one such meeting revealed substantive discussion of specific pedagogical challenges, with collaborative problem-solving evident.

Documentation practices at Cileunca supported continuous improvement. Archive analysis revealed progression in teacher performance across multiple evaluation cycles, with specific examples of how feedback informed subsequent professional development activities. For instance, when evaluation revealed widespread difficulty with differentiated instruction, subsequent in-house training explicitly addressed this competency area.

Evaluation at SMPN Satu Atap Panyindangan lacked systematic documentation. The principal maintained personal notes rather than formal evaluation records. Interview data confirmed: "I keep notes of what I observe, but we don't have formal documentation systems. Discussions with teachers are primarily verbal." While the principal held post-supervision meetings with teachers, absence of systematic documentation limited ability to track longitudinal development or identify patterns requiring targeted intervention. Observational data revealed evaluation discussions focused on immediate concerns rather than synthesizing broader developmental trajectories.

An unanticipated finding concerned the relationship between evaluation documentation and accountability. At Cileunca, documented evaluation created transparent accountability for both principal and teachers, fostering mutual commitment to improvement. Panyindangan's informal evaluation approach, while allowing flexibility, reduced accountability and made sustained improvement difficult to verify.

Obstacles and Adaptive Solutions

Both schools confronted substantial obstacles, though with varying intensity and response strategies. Teacher qualification mismatches emerged as a universal challenge, with numerous teachers instructing outside their training areas. At Cileunca, the principal addressed this through subject-specific study groups where teachers collaboratively developed content knowledge. At Panyindangan, the principal provided individual mentoring, though time constraints limited this approach's effectiveness.

Facility limitations affected both contexts differently. Cileunca's rotation system and creative resource sharing partially mitigated infrastructure gaps, whereas Panyindangan's more passive acceptance of limitations constrained pedagogical innovation. Internet connectivity challenges particularly hindered access to online professional development, with both schools reporting frustration regarding this barrier to external training resources.

Teacher motivation emerged as a critical differentiating factor. Cileunca's collaborative approach appeared to sustain teacher engagement despite challenges, while Panyindangan's more isolated teachers reported feeling discouraged by accumulated limitations. One Panyindangan teacher noted: "When you're alone with these challenges, it feels overwhelming. We do our best but innovation seems impossible."

Solutions demonstrated adaptive creativity within constraints. Both schools utilized in-house training to overcome access limitations, though Cileunca's collaborative planning made these more responsive to identified needs. Informal mentoring occurred at both sites, with Cileunca's peer-based model distributing responsibility while Panyindangan's principal-centered approach created bottlenecks. These differential solutions reflected underlying management philosophies and had consequential effects on teacher development outcomes.

Discussion

This study examined how school principals in integrated junior high schools manage teacher pedagogical competence development within severe resource constraints. Findings reveal that management effectiveness depends less on resource availability than on how principals strategically employ participatory planning, flexible organization, consistent implementation, and systematic evaluation to foster teacher professional growth. This discussion interprets these findings within existing theoretical frameworks and empirical literature, identifies implications for theory and practice, acknowledges limitations, and suggests future research directions.

Interpretation of Key Findings

The differential effectiveness of planning approaches between schools underscores the critical importance of participatory processes in resource-constrained contexts. Cileunca's collaborative planning model aligns with contemporary understanding that teacher engagement in decision-making processes enhances ownership and commitment to professional development initiatives (Naila et al.,

2022). This participatory approach contrasts sharply with traditional hierarchical planning models that frequently characterize schools in developing contexts. Research examining teacher professional development has increasingly emphasized that programs responsive to teachers' identified needs prove more effective than externally imposed initiatives (UNESCO, 2024). The present findings extend this understanding to resource-limited settings, demonstrating that participation becomes even more crucial when external support mechanisms are minimal.

The unexpected finding regarding teacher motivation differences between schools merits particular attention. Social cognitive theory suggests that self-efficacy and outcome expectations significantly influence behavior (Bandura, 1997). Cileunca's participatory approach appeared to enhance teachers' sense of agency, supporting findings by Li et al. (2023) that professional development agency mediates relationships between school support and teacher expertise. Conversely, Panyindangan's centralized approach may have inadvertently undermined teacher agency, contributing to resignation rather than resilience. This finding challenges assumptions that resource limitations inevitably produce teacher disengagement, suggesting instead that management approaches moderate this relationship.

Organizational findings illuminate how principals navigate resource constraints through creative adaptation. The stark contrast between Cileunca's distributed leadership model and Panyindangan's centralized structure reflects broader debates in educational leadership literature regarding optimal organizational configurations. Research on transformational leadership consistently demonstrates that distributed models enhance organizational innovation and teacher development (Bao, 2024). However, this study reveals that distribution requires intentional structuring and trust-building—it does not emerge spontaneously in resource-constrained environments. The principal at Cileunca deliberately cultivated collaborative structures through consistent delegation and recognition of distributed expertise, whereas Panyindangan's principal retained control, possibly due to perceived necessity but with limiting consequences.

The facility rotation system at Cileunca represents adaptive innovation deserving recognition. While educational technology literature typically focuses on infrastructure expansion (Tondeur et al., 2023), this finding suggests that equitable access mechanisms may prove more immediately impactful than infrastructure additions in resource-limited contexts. This aligns with emerging scholarship on educational innovation in developing contexts, which emphasizes contextual adaptation over resource-intensive solutions (Hardman & Sandi, 2024).

Implementation findings reveal that consistency matters as much as content. Both principals attempted supervision and feedback, yet Cileunca's systematic approach with documented instruments produced more reliable results than Panyindangan's episodic interventions. This supports research demonstrating that sustained, structured professional development yields superior outcomes compared to sporadic initiatives (Darling-Hammond et al., 2017). The mediating role of peer learning at Cileunca merits particular emphasis. Professional learning communities have proven effective in fostering teacher development (DuFour et al., 2016), yet implementation typically assumes adequate resources. This study demonstrates that even minimally resourced schools can establish collaborative learning structures if principals intentionally facilitate them.

The stark evaluation differences between schools underscore documentation's critical role in continuous improvement cycles. Contemporary management theory emphasizes evaluation's formative function—using data to inform improvement rather than merely judge performance (Hattie & Zierer, 2018). Cileunca's documented evaluation exemplified this formative approach, creating transparent feedback loops that guided subsequent planning. Panyindangan's informal evaluation, while potentially less threatening, failed to provide systematic information for improvement decisions. This finding extends understanding of evaluation in resource-constrained schools, suggesting that simple documentation systems—not sophisticated data management platforms—can substantially enhance improvement capacity. Recent research on monitoring and evaluation tools for school improvement

emphasizes that even basic data management systems enable informed decision-making and timely interventions (Insight7, 2025).

The obstacle-solution patterns reveal principals' differential capacity for adaptive leadership. Adaptive leadership theory suggests that effective leaders in challenging contexts diagnose systemic versus technical problems and mobilize stakeholders to address root causes rather than symptoms (Heifetz et al., 2009). Cileunca's principal demonstrated this adaptive capacity by reframing resource limitations as opportunities for collaborative innovation, whereas Panyindangan's principal appeared to accept limitations as insurmountable constraints. This connects to recent scholarship on leadership adaptability in emerging markets, which identifies flexibility and creative problem-solving as essential competencies when infrastructure and resources remain inconsistent (Su, 2024).

Relationship to Existing Literature

These findings both align with and extend existing scholarship on educational leadership and teacher development. The centrality of participatory planning corroborates extensive research demonstrating that teacher involvement in decision-making enhances professional commitment and instructional improvement (Hallinger & Heck, 2010; Day et al., 2016). However, this study extends understanding by demonstrating that participation proves particularly consequential in resource-limited contexts where external support mechanisms are minimal. When schools cannot rely on district-provided training or abundant materials, internal collaborative capacity becomes the primary vehicle for professional growth.

The organizational findings resonate with distributed leadership literature emphasizing that effective schools distribute leadership responsibilities beyond formal administrators (Spillane et al., 2004; Harris, 2013). However, existing literature predominantly examines well-resourced schools in developed contexts. This study contributes evidence that distributed leadership models remain viable and beneficial even under severe resource constraints, though they require intentional cultivation rather than emerging organically. This challenges deficit-oriented narratives suggesting that leadership distribution requires resource abundance.

Implementation findings align with research demonstrating that transformational leadership—characterized by intellectual stimulation, individualized consideration, and inspiration—significantly predicts teacher innovation and professional development (Leithwood & Jantzi, 2006; Bao, 2024). Recent systematic reviews confirm that transformational leadership by school principals improves teacher performance in creativity, innovation, and self-efficacy, which subsequently contribute to student learning outcomes (Meidelina et al., 2023). The present study extends this literature by examining how principals enact transformational practices with minimal resources. Cileunca's principal demonstrated transformational dimensions through peer learning facilitation and recognition of teacher expertise despite lacking funds for external consultants or extensive professional development programs.

The evaluation findings challenge assumptions in educational assessment literature, which often emphasizes sophisticated data systems and analytics (Marsh, 2012). While such systems offer value, this study demonstrates that even basic systematic documentation substantially enhances improvement capacity compared to purely informal evaluation. This has important implications for schools in developing contexts that may feel overwhelmed by data-driven decision-making discourse originating in well-resourced settings. Simple, sustainable documentation practices may represent more appropriate initial steps than attempting to implement comprehensive data management systems.

The obstacle-solution patterns connect to emerging literature on educational leadership in challenging contexts. Recent research on rural schools emphasizes that principals in such settings must exercise adaptive strategies extending beyond conventional administrative frameworks (Hardman & Sandi, 2024; National Rural Education Association, 2023). This study provides concrete examples of such adaptation, including creative resource rotation, peer-based professional learning, and participatory problem-solving. These strategies reflect what Bristol-Alagbariya et al. (2024)

describe as the "70-20-10" model of leadership development in constrained settings, emphasizing experiential learning and internal knowledge sharing over formal training programs.

Critically, findings also reveal tensions and contradictions worthy of further examination. While participatory planning produced benefits at Cileunca, it also required substantial time investment from an already overburdened principal and teaching staff. This raises questions about sustainability and scalability that the literature has insufficiently addressed. Similarly, while distributed leadership proved beneficial, it may create coordination challenges as schools scale or face turnover. These tensions suggest that optimal management approaches may be context-dependent rather than universally applicable, requiring principals to continuously adapt their strategies based on evolving circumstances.

Theoretical and Practical Implications

Theoretically, findings demonstrate that management function effectiveness in resource-constrained contexts depends fundamentally on participatory processes and adaptive strategies rather than resource abundance. This challenges deficit perspectives that implicitly assume management effectiveness requires adequate resourcing, supporting a capabilities-focused theoretical orientation emphasizing what schools can accomplish through strategic management.

Findings also advance understanding of transformational leadership in developing contexts. While transformational leadership theory originated in well-resourced settings, this study demonstrates its applicability in resource-limited schools, though transformation manifests differently—through peer collaboration and creative resource use rather than charismatic vision-casting and abundant developmental opportunities.

Practically, findings offer actionable guidance for principals, supervisors, and policymakers. First, principals should prioritize participatory planning processes involving teachers in identifying professional development needs. Second, principals must intentionally cultivate distributed organizational structures by delegating supervisory responsibilities and recognizing teacher expertise. Third, consistent implementation with systematic documentation—even simple observation checklists—substantially enhances developmental feedback quality. Fourth, principals should establish peer learning structures to maximize internal knowledge sharing when external training access is limited. Fifth, simple but systematic evaluation documentation enables evidence-based program adjustment. Finally, policymakers should recognize that principal management capacity significantly mediates resource constraints' impact on teacher development, suggesting that leadership development for principals in challenging contexts deserves investment priority.

Limitations and Future Research Directions

Several limitations warrant acknowledgment. First, the qualitative case study design, while enabling rich contextual understanding, limits generalizability. Future research employing mixed methods approaches across larger samples could examine whether identified patterns characterize broader populations and could quantify relationships between specific management practices and measurable teacher competence outcomes.

Second, cross-sectional data collection precluded understanding of how approaches evolve over time. Longitudinal research following schools across multiple years could illuminate developmental trajectories and sustainability of management innovations.

Third, the study could not fully account for broader contextual factors including district support, community engagement, and policy environments. Multilevel studies examining how school-level management practices interact with system-level factors would enhance understanding of enabling conditions for effective management.

Fourth, the study relied primarily on participant reports and observational data, with limited direct assessment of student learning outcomes. Future research should examine relationships between principal management practices, teacher pedagogical competence development, and measurable student learning gains.

Finally, the study focused exclusively on integrated junior high schools in one Indonesian district. Comparative research across diverse school types and national contexts would test findings' broader applicability and identify context-specific versus universal management principles.

Synthesis and Conceptual Contribution

This study's core conceptual contribution lies in demonstrating that educational management effectiveness in resource-constrained contexts fundamentally depends on participatory, adaptive approaches rather than resource abundance. The differential outcomes between schools with similar resource limitations but contrasting management approaches challenge deficit-oriented perspectives that view limited resources as deterministic constraints on educational quality.

The study illuminates a critical mechanism: teacher agency and collective efficacy. Participatory planning, distributed organization, peer-based implementation, and systematic evaluation all functioned to enhance teachers' sense of capability and collaborative capacity. This suggests that resource-constrained schools' improvement pathway lies not primarily in securing additional external resources but in mobilizing internal human resources through management practices that foster agency, collaboration, and continuous learning.

These findings hold particular significance for educational equity efforts. If effective teacher development requires only abundant external resources, then schools serving disadvantaged communities face insurmountable barriers. However, if strategic management practices can foster teacher development even with minimal resources, then pathways to quality improvement exist that do not depend entirely on resource redistribution.

Ultimately, this study affirms that the principalship matters profoundly in resource-constrained schools—not through heroic individual effort but through deliberate cultivation of collaborative structures, participatory processes, and systematic improvement mechanisms that enable collective teacher learning and growth.

CONCLUSION

This study examined principal management practices in improving teacher pedagogical competence within integrated junior high schools operating under severe resource constraints. Findings demonstrate that management effectiveness depends fundamentally on participatory planning, distributed organizational structures, consistent implementation, and systematic evaluation rather than resource abundance. The comparative analysis revealed that SMPN Satu Atap Cileunca's collaborative approach fostered greater teacher agency and professional development compared to SMPN Satu Atap Panyindangan's centralized management model, despite both schools facing similar resource limitations. This research contributes to educational management scholarship by challenging deficit-oriented perspectives that view limited resources as deterministic constraints, instead demonstrating that strategic management practices emphasizing participation and adaptive leadership can successfully cultivate teacher development even in severely constrained contexts.

The study holds significant implications for principals, supervisors, and policymakers in developing contexts. Principals should prioritize establishing participatory planning processes, cultivating peer learning structures, and implementing simple but systematic documentation practices to enhance teacher professional growth. Policymakers should recognize that leadership development for principals in resource-limited schools deserves equal attention as infrastructure investment, as management capacity significantly mediates constraints' impact on educational quality. However, limitations warrant acknowledgment, including the qualitative case study design limiting generalizability, cross-sectional data collection precluding longitudinal understanding, and insufficient attention to student learning outcomes. Future research should employ mixed-methods approaches across larger samples to quantify relationships between specific management practices and measurable teacher competence outcomes, conduct longitudinal studies examining sustainability of management innovations, and investigate multilevel interactions between school management and system-level enabling conditions. Ultimately, this study affirms that principalship matters profoundly in

resource-constrained schools through deliberate cultivation of collaborative structures and systematic improvement mechanisms that enable collective teacher learning and professional growth.

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