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Teacher Performance Management in Improving Learning Achievement of Elementary School Students

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Abstract
Suboptimal teacher performance management implementation contributes to persistent low student achievement in Indonesian elementary education, yet limited research examines how contextual variations shape management effectiveness in resource-constrained rural settings. This qualitative comparative case study investigated teacher performance management across Armstrong's five-stage framework (planning, implementation, monitoring, assessment, follow-up) at two elementary schools in Naringgul District, Cianjur Regency. Data were collected through in-depth interviews with principals, teachers, and students; participatory classroom observations; and document analysis, then analyzed using Miles, Huberman, and Saldaña's interactive model. Both schools implemented all performance management stages systematically, though with distinct approaches: SDN Mulyasari employed backward design planning and spontaneous differentiated instruction despite infrastructure limitations, achieving 65% student competency attainment, while SDN Tegallame utilized behavioral objectives planning and programmatic differentiation with superior technology integration, achieving 75% attainment. The study revealed effective monitoring requires "nested feedback loops" combining classroom-level formative assessment with school-level clinical supervision. However, a critical implementation gap emerged: weak linkage between performance evaluation outcomes and targeted professional development interventions in both schools. Findings demonstrate that effective performance management permits multiple valid instantiations shaped by context, with pedagogical adaptability partially compensating for resource constraints. The research advances theoretical understanding by conceptualizing monitoring as synergistic multilevel systems while identifying the evaluation-to-development gap as a key barrier to transformative impact, suggesting educational leaders must prioritize systemic integration and establish explicit pathways connecting assessment to focused professional learning.

INTRODUCTION

The quality of education fundamentally determines a nation's capacity for sustainable development and global competitiveness (Abrha & Weldeyohans, 2025; Kolawole et al., 2022). Research across diverse contexts demonstrates that strategic investments in education enhance productivity, foster innovation, and drive sustained economic growth (Li & Sun, 2023; Zhang et al., 2023). In Indonesia, this imperative is enshrined in Article 31 of the 1945 Constitution and operationalized through Law Number 20 of 2003 concerning the National Education System, which guarantees every citizen's right to accessible basic education. As the foundational stage where students develop essential competencies, character formation, and cognitive frameworks, basic education serves as the cornerstone of human capital development (Wechsler et al., 2016). Suyanto (2021) emphasizes that the quality of basic education directly influences students' success at subsequent educational levels and ultimately shapes the quality of national human resources. However, despite this constitutional commitment and recognized importance, Indonesia continues to face persistent challenges in educational quality, as evidenced by its consistently low rankings in international assessments such as the 2018 Programme for International Student Assessment (PISA) (Klieme & Nilsen, 2022).

Central to addressing these quality concerns is the recognition that teacher quality represents the most critical determinant of educational outcomes (Baumert et al., 2010; Hanushek & Rivkin, 2006; Kunter et al., 2013). International research consistently demonstrates that teacher competence significantly influences instructional quality and, consequently, student achievement and engagement (Fauth et al., 2019; Nilsen & Gustafsson, 2016). Mulyasa (2019) asserts that no education system can surpass the quality of its teachers, as they constitute the frontline agents of the learning process. This recognition has prompted increasing attention to teacher performance management as a systematic approach to ensuring and enhancing educational quality (Aguinis, 2009; Van Dooren et al., 2015). Dessler (2018) conceptualizes performance management as an integrated system aligning individual objectives with organizational strategic goals, a framework that, when applied to educational contexts, positions school principals as central figures in designing and maintaining consistent performance patterns (Seyfried et al., 2019). Effective teacher performance management encompasses a structured cycle of planning, implementation, evaluation, and professional development, supported by appropriate facilities such as training programs, in-house professional development, and an appreciative organizational climate that fosters commitment and creativity (Awan et al., 2020).

Despite widespread recognition of performance management's importance, substantial gaps persist between theoretical frameworks and practical implementation in educational settings. Previous research has documented various aspects of teacher performance management, with studies by Zubair, Sasongko, and Aliman (2017) and Sudrajat (2018) confirming that effective performance management begins with well-structured planning cycles. Research demonstrates that approximately 65% of variation in student achievement can be attributed to teacher competence (Blömeke et al., 2016; Kunter et al., 2013; Kurniawan, 2021), while international studies provide empirical evidence of the positive relationship between teacher competencies and student learning outcomes (Darling-Hammond, 2018; Fauth et al., 2019; König et al., 2021). However, existing literature predominantly focuses on isolated components of performance management or examines implementation in urban or well-resourced contexts, leaving significant knowledge gaps regarding how performance management systems function holistically in resource-constrained rural settings and how different contextual factors shape implementation outcomes (Alshaikhi & Alshaikhi, 2021). Rural schools in developing countries face distinctive challenges including teacher shortages, limited infrastructure, inadequate learning materials, and restricted access to professional development opportunities (Akyeampong et al., 2013; Hayes & Bulat, 2017; Tikly, 2011).

The present study addresses these gaps by examining teacher performance management through Armstrong's (2020) comprehensive five-stage framework encompassing planning, implementation, monitoring, assessment, and follow-up. This theoretical lens provides a systematic approach to understanding the complete performance management cycle and its relationship to student learning achievement (Catalogo & Doromal, 2022; Esteban et al., 2024). Importantly, this research adopts a comparative case study design across two different elementary schools in rural settings, allowing for nuanced analysis of how contextual variations influence performance management effectiveness. This comparative approach responds to calls in the literature for more context-sensitive research that acknowledges the complex interplay between management systems and local conditions, particularly in resource-constrained environments where educational challenges are most pronounced (Levin & Lockheed, 1991; Tikly, 2011).

The research problem is situated within the broader challenge of suboptimal student learning achievement in Indonesia, as documented by the Ministry of Education, Culture, Research, and Technology (2022). While multiple factors contribute to this challenge, evidence suggests that inadequate implementation of teacher performance management systems plays a significant role (Abdullah et al., 2020). This is particularly concerning given that Law Number 14 of 2005 and Regulation of the Minister of National Education Number 16 of 2007 mandate that teachers must master four core competencies: pedagogical, professional, social, and personal. Among these, pedagogical competence emerges as particularly critical, as research demonstrates its direct influence

on instructional quality and student outcomes across diverse educational contexts (Baumert et al., 2010; Canuto et al., 2024; König et al., 2021). It governs teachers' capacity to design, implement, and evaluate learning processes aligned with student characteristics, thereby creating active and conducive learning environments. Preliminary data collected in April 2025 from SDN Mulyasari and SDN Tegallame in Naringgul District, Cianjur Regency, revealed substantial disparities in both teacher competency indicators and student achievement outcomes between the two schools, despite their geographic proximity and similar resource contexts. At SDN Mulyasari, only 65% of students achieved minimum competency standards with notably low student engagement, while SDN Tegallame demonstrated 75% achievement rates with more effective learning processes. These variations suggest that differential implementation of performance management systems may significantly influence educational outcomes even within similar contextual constraints.

This study therefore aims to provide comprehensive analysis of how teacher performance management is implemented across Armstrong's five stages in two contrasting elementary school contexts and how this implementation relates to student learning achievement. By examining both successful practices and persistent challenges, this research seeks to contribute to theoretical understanding of performance management in educational settings while generating practical insights for developing contextual and adaptive performance management models suitable for rural schools. The significance of this research extends beyond the immediate study sites, as findings may inform policy and practice improvements in similar resource-constrained contexts throughout Indonesia and comparable developing country settings, ultimately contributing to enhanced basic education quality and more equitable educational outcomes (Levin & Lockheed, 1991; Sintema, 2020).

METHODS

This research employed a qualitative approach utilizing a comparative case study design to investigate the phenomenon of teacher performance management within authentic educational contexts (Baxter & Jack, 2008; Yin, 2018). The comparative case study methodology was deliberately selected as it enables systematic examination of multiple cases while allowing for in-depth exploration of contextual variations and their influence on implementation outcomes (Harrison et al., 2017; Kaarbo & Beasley, 1999). This design facilitated rich understanding of how teacher performance management operates across two distinct elementary school settings, namely SDN Mulyasari and SDN Tegallame in Naringgul District, Cianjur Regency, thereby enabling identification of both commonalities and divergences in management practices and their relationship to student learning achievement. The comparative approach strengthens confidence in the generalizability of findings while maintaining the depth characteristic of qualitative inquiry (Bartlett & Vavrus, 2017).

Research participants were purposively selected to ensure comprehensive representation of stakeholders directly involved in teacher performance management processes. Primary informants included school principals from both institutions, who serve as key implementers of performance management systems, classroom teachers across various grade levels who represent the subjects of performance evaluation and professional development, and students who constitute the ultimate beneficiaries of enhanced teaching quality. This purposive sampling strategy aligns with established qualitative research principles that emphasize selecting information-rich cases capable of illuminating the phenomenon under investigation (Creswell, 2018; Patton, 2015). The selection of SDN Mulyasari and SDN Tegallame as research sites was based on preliminary survey data indicating substantial variations in both teacher competency indicators and student achievement outcomes despite similar resource contexts, thereby providing theoretically relevant cases for comparative analysis.

Data collection employed triangulation through three complementary techniques to ensure validity and comprehensiveness of findings (Carter et al., 2014; Denzin, 1978; Patton, 1999). First, in-depth semi-structured interviews were conducted with principals, teachers, and selected students to capture diverse perspectives regarding performance management implementation, experiences, challenges, and perceived impacts. Interview protocols were designed to elicit detailed narratives

while maintaining flexibility to explore emergent themes. Second, participatory classroom observations were systematically undertaken to directly witness teaching practices, teacher-student interactions, instructional strategies, and learning environments, thereby providing behavioral evidence to complement self-reported data. Observation protocols focused on pedagogical competence indicators and their manifestation in actual practice. Third, comprehensive document analysis examined teaching preparation materials including lesson plans and teaching modules, student assessment records and progress documentation, supervision reports and feedback instruments, and school policy documents related to performance management. This methodological triangulation enhanced credibility by enabling cross-validation of findings across multiple data sources and reducing potential biases inherent in any single method (Flick, 2018; Morgan, 2024).

To ensure trustworthiness and rigor of the qualitative data, several validation strategies were implemented throughout the research process. Data source triangulation was achieved through collection of information from multiple stakeholder groups across different times and contexts (Carter et al., 2014). Methodological triangulation combined observational, interview, and documentary evidence to provide convergent validation (Heale & Forbes, 2013). Member checking procedures involved sharing preliminary interpretations with participants to verify accuracy and resonance with their lived experiences (Creswell & Poth, 2018). Additionally, prolonged engagement at both research sites enabled development of rapport with participants and deep contextual understanding necessary for credible interpretation. These validation strategies collectively addressed the four criteria for trustworthiness in qualitative research: credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985).

Data analysis followed the interactive model developed by Miles, Huberman, and Saldaña (2014), which conceptualizes analysis as a cyclical and iterative process comprising three concurrent flows of activity. First, data reduction involved systematically selecting, focusing, simplifying, and transforming raw data through coding processes that identified patterns, themes, and categories relevant to teacher performance management and student achievement. This included both initial descriptive coding and subsequent analytical coding that developed conceptual understanding. Second, data display organized compressed information into structured formats such as matrices, networks, and charts that facilitated systematic comparison between the two cases and enabled pattern recognition across data sources. These visual representations proved particularly valuable for identifying convergences and divergences in implementation approaches and outcomes. Third, conclusion drawing and verification involved interpreting displayed data to generate provisional findings, which were then systematically tested against the complete dataset through searching for disconfirming evidence, considering alternative explanations, and checking for internal coherence. This interactive model allowed for continuous movement between data collection, reduction, display, and conclusion drawing, enabling progressive refinement of interpretations throughout the analytical process (Miles et al., 2014; Saldaña, 2016). The comparative dimension was incorporated by developing parallel analytical frameworks for both schools that facilitated systematic cross-case synthesis, thereby revealing how contextual factors shaped performance management effectiveness and ultimately influenced student learning outcomes.

RESULTS AND DISCUSSION

Results

The findings of this comparative case study reveal comprehensive insights into how teacher performance management operates across five distinct stages in two elementary schools with contrasting contexts. Table 1 presents a summary of key findings organized by performance management stages.

The comparative analysis reveals that while both schools implement all five stages of teacher performance management, significant variations exist in approach sophistication and resource availability. The data indicate that SDN Tegallame generally demonstrates more structured and

technologically supported practices, reflected in the 10-percentage-point difference in student achievement rates (75% vs. 65% meeting minimum competency standards). However, SDN Mulyasari exhibits particular strength in fostering student-centered participatory learning despite resource constraints, suggesting that pedagogical adaptability can partially compensate for infrastructural limitations.

Table 1. Summary of Teacher Performance Management Implementation Findings

Stage	SDN Mulyasari	SDN Tegallame	Comparative Analysis
Planning	Backward design approach (Wiggins & McTighe, 1998); begins with Learning Outcomes; systematic but limited by infrastructure	Behavioral objectives approach (Mager, 1962); detailed measurable indicators from Basic Competencies; systematic with better facility planning	Both systematic but differ in instructional design philosophy; facility constraints more pronounced at Mulyasari
Implementation	High student participation (65% KKM achievement); adaptive teaching; strong discussion-based learning; limited technology integration	Structured delivery (75% KKM achievement); optimal media utilization; technology-enhanced instruction; balanced teacher guidance	Tegallame demonstrates higher achievement with technology advantage; Mulyasari shows strength in participatory pedagogy
Monitoring	Formative assessment in classroom; clinical supervision implemented; positive but general feedback	Continuous assessment; systematic supervision; detailed diagnostic feedback; structured documentation	Both apply formative assessment effectively; Tegallame provides higher quality, more specific feedback
Assessment	Regular formative and summative evaluation; motivational feedback; student progress tracking	Comprehensive evaluation system; diagnostic feedback aligned with learning objectives; data-driven decisions	Tegallame demonstrates more sophisticated assessment practices with better feedback specificity
Follow-up	Spontaneous differentiated instruction; responsive to high-achieving students; limited systematic professional development linking	Programmatic differentiation through P5 projects and extracurriculars; structured student development; proactive principal initiatives but weak evaluation-training linkage	Both schools show strength in teaching adaptation; systemic gap in connecting performance evaluation to focused professional development

An unexpected finding emerged regarding the relationship between feedback quality and professional development systems. While SDN Tegallame provides more detailed, diagnostic feedback through its assessment processes, neither school has established robust mechanisms to systematically translate supervision findings into targeted professional development interventions. This disconnect suggests that even schools with strong monitoring and assessment practices may struggle to close the loop between performance evaluation and teacher growth opportunities, potentially limiting the full impact of performance management on continuous improvement.

Another notable discovery concerns the differential implementation of differentiated instruction. SDN Mulyasari's approach is characterized by spontaneous, teacher-initiated interventions responsive to immediate classroom needs, exemplified by teachers providing additional hands-on practice when identifying high-performing students. This reflects what Tomlinson (2001) conceptualizes as process and product differentiation occurring in real-time. Conversely, SDN Tegallame employs a more institutionalized approach through flagship programs like the Pancasila Student Profile Strengthening Project (P5) and structured extracurricular activities, creating systematic opportunities for skill development beyond the formal curriculum. These contrasting approaches suggest multiple viable pathways to addressing diverse student needs, each with distinct advantages: spontaneous differentiation offers immediate responsiveness to individual learners, while programmatic differentiation ensures consistent access to enrichment opportunities for all students.

The infrastructure gap between the two schools, particularly in technology access, represents a critical contextual factor shaping implementation quality. Despite both schools demonstrating teacher

competence in planning media integration, SDN Tegallame's superior technological infrastructure enables more consistent implementation of technology-enhanced instruction. This finding underscores the interaction between teacher pedagogical knowledge and material resources, where even well-designed plans may encounter implementation barriers due to systemic constraints beyond individual teacher control. The data suggest that while teacher quality remains paramount, equitable resource distribution is essential for translating pedagogical competence into consistent instructional quality across different school contexts.

Discussion

The findings of this study provide substantive evidence that systematic teacher performance management, when implemented comprehensively across all five stages identified by Armstrong (2020), significantly influences student learning achievement. The 10-percentage-point achievement differential between SDN Tegallame (75%) and SDN Mulyasari (65%) demonstrates that variations in performance management implementation quality correlate with measurable differences in educational outcomes, even when schools operate in similar geographic and socioeconomic contexts. This finding extends previous research by Kurniawan (2021) and Abdullah et al. (2020), which identified teacher performance management as a critical determinant of student achievement, by providing detailed comparative analysis of how specific implementation approaches produce differential outcomes.

The study's revelation of two distinct yet equally valid instructional planning approaches—backward design (Wiggins & McTighe, 1998) and behavioral objectives (Mager, 1962)—challenges assumptions about pedagogical uniformity. While contemporary educational discourse often privileges certain planning frameworks, our findings suggest that implementation quality and contextual appropriateness may matter more than adherence to any single model. This aligns with Bartlett and Vavrus's (2017) argument for comparative approaches that recognize multiple pathways to effectiveness. Importantly, both schools demonstrated that systematic planning, regardless of specific framework, provides essential structure for effective instruction, confirming foundational research by Zubair, Sasongko, and Aliman (2017) and Sudrajat (2018) on performance management cycles.

The study's most theoretically significant contribution concerns the synergistic relationship between micro-level formative assessment and macro-level clinical supervision in effective monitoring systems. Our findings demonstrate that successful monitoring requires concurrent operation at both levels: teachers continuously assessing student learning in real-time (Black & Wiliam, 1998; Wiliam, 2011) while principals provide collaborative, growth-oriented supervision aligned with clinical supervision principles (Cogan, 1973). This two-tiered monitoring system creates what might be termed "nested feedback loops"—immediate adjustments at the instructional level embedded within broader cycles of professional reflection and development. This finding responds to calls in recent performance management literature (Catalogo & Doromal, 2022; Esteban et al., 2024) for understanding how different organizational levels interact to support teacher effectiveness.

However, the study also reveals a critical implementation gap that warrants scholarly attention: the weak linkage between performance evaluation outcomes and targeted professional development interventions. Despite both schools conducting regular supervision and providing feedback, neither has established systematic processes for translating identified development needs into focused training opportunities. This finding problematizes simplistic models of performance management as linear cycles and instead reveals them as complex systems where information flow may be disrupted at key nodes. The gap identified here echoes concerns raised in international literature about performance appraisal systems that emphasize evaluation over development (Mosoge & Pilane, 2003), suggesting this challenge transcends national contexts. This disconnect may explain why, as Suryapriadi et al. (2020) note, many performance management systems fail to achieve their full potential for driving continuous improvement.

The differential achievement outcomes between the two schools, while partially explained by resource availability, also illuminate the complex interplay between pedagogical competence, infrastructure, and student engagement. SDN Tegallame's technology-enhanced instruction aligns with extensive research demonstrating the effectiveness of multimedia learning resources (Gagné, 1985; Dale, 1946), yet SDN Mulyasari's strength in fostering active student participation through discussion-based methods reflects the power of constructivist pedagogies (Bonwell & Eison, 1991; Vygotsky, 1978). This finding challenges deficit narratives that attribute lower achievement in under-resourced schools solely to inadequacies, instead highlighting how different strengths may emerge in response to contextual constraints. The ability of SDN Mulyasari teachers to achieve 65% student proficiency despite infrastructure limitations demonstrates what might be termed "resourceful pedagogy"—the capacity to leverage available assets, particularly strong teacher-student interaction, to partially compensate for material constraints.

This research advances theoretical understanding of teacher performance management in three key ways. First, it demonstrates that effective performance management is not a monolithic construct but rather permits multiple valid instantiations shaped by contextual factors. Second, it reveals the critical importance of systemic integration, particularly the need for feedback loops connecting evaluation to professional development. Third, it provides empirical evidence for the nested nature of monitoring systems, where classroom-level and school-level processes must operate synergistically. Practically, these findings suggest that educational leaders should prioritize building comprehensive performance management systems rather than focusing on isolated components, ensure adequate resource provision alongside teacher development, and establish explicit pathways from performance evaluation to targeted professional learning opportunities.

This study's scope was limited to two elementary schools in a single district, potentially constraining transferability of findings to other contexts. The qualitative case study design, while enabling deep contextual understanding, precludes statistical generalization. The cross-sectional nature of data collection captured performance management implementation at a single point in time, limiting insights into longitudinal development or seasonal variations. Additionally, student achievement data relied on school-reported minimum competency standards rather than standardized external assessments, which may affect comparability. Future research employing longitudinal mixed-methods designs across larger samples could strengthen understanding of causal relationships between performance management practices and student outcomes. Investigations into how the identified evaluation-to-development gap might be systematically addressed would offer valuable practical contributions, as would comparative studies examining performance management in urban versus rural contexts or across different educational levels to test the transferability of these findings.

CONCLUSION

This comparative case study demonstrates that comprehensive implementation of teacher performance management across Armstrong's (2020) five-stage framework significantly influences student learning achievement, as evidenced by measurable differences in competency attainment between SDN Mulyasari (65%) and SDN Tegallame (75%). The research reveals that effective performance management permits multiple valid instantiations shaped by contextual factors, with both backward design and behavioral objectives approaches proving equally viable when implemented systematically. Critically, the study identifies a previously underexplored implementation gap: the weak linkage between performance evaluation outcomes and targeted professional development interventions, which limits the transformative potential of performance management systems even when monitoring and assessment practices are well-established.

The theoretical contribution of this research lies in conceptualizing monitoring systems as "nested feedback loops" operating synergistically at classroom and school levels, advancing understanding beyond linear cycle models prevalent in existing literature. Practically, findings suggest educational leaders must prioritize systemic integration over isolated component improvement, ensure equitable

resource provision alongside teacher development, and establish explicit pathways connecting evaluation to focused professional learning. The study demonstrates that pedagogical adaptability can partially compensate for infrastructure constraints, as evidenced by SDN Mulyasari's achievement despite resource limitations, challenging deficit narratives about under-resourced schools.

However, this research's scope was limited to two elementary schools in a single district, potentially constraining transferability. The cross-sectional design captured implementation at a single timepoint, precluding longitudinal insights into developmental trajectories. Future research employing mixed-methods longitudinal designs across larger, more diverse samples could strengthen causal understanding and test the transferability of these findings. Investigations specifically examining how to systematically bridge the evaluation-to-development gap would offer valuable practical contributions to performance management scholarship and practice, particularly in resource-constrained contexts where such systems are most needed yet face greatest implementation challenges.

REFERENCES

Abdullah, Y. (2020). Implementasi Penilaian Kinerja Guru Dalam Kegiatan Supervisi Pembelajaran di SDN 04 Duhiadaa. *Tadbir: Jurnal Manajemen Pendidikan Islam*, *8*(2), 88-105. https://doi.org/10.30603/tjmpi.v8i2.1294

Abrha, T. G., & Weldeyohans, B. T. (2025). The role of human capital in economic development: A theoretical analysis. *Journal of Human Resource Management*, *13*(2), 30–35. https://doi.org/10.11648/j.jhrm.20251302.11

Aguinis, H. (2009). *Performance management* (2nd ed.). Pearson Prentice Hall.

Akyeampong, K., Lussier, K., Pryor, J., & Westbrook, J. (2013). Improving teaching and learning of basic maths and reading in Africa: Does teacher preparation count? *International Journal of Educational Development*, *33*(3), 272–282. https://doi.org/10.1016/j.ijedudev.2012.09.006

Alshaikhi, N., & Alshaikhi, T. (2021). An assessment of teachers' performance management system: The case of Saudi Ministry of Education. *International Business Research*, *14*(2), 102–114. https://doi.org/10.5539/ibr.v14n2p102

Armstrong, M. (2020). *Armstrong's handbook of performance management: An evidence-based guide to delivering high performance* (6th ed.). Kogan Page Publishers.

Awan, S. H., Habib, N., Akhtar, C. S., & Naveed, S. (2020). Effectiveness of performance management system for employee performance through engagement. *SAGE Open*, *10*(4), Article 2158244020969383. https://doi.org/10.1177/2158244020969383

Bartlett, L., & Vavrus, F. (2017). *Rethinking case study research: A comparative approach*. Routledge.

Baumert, J., Kunter, M., Blum, W., Brunner, M., Voss, T., Jordan, A., Klusmann, U., Krauss, S., Neubrand, M., & Tsai, Y. M. (2010). Teachers' mathematical knowledge, cognitive activation in the classroom, and student progress. *American Educational Research Journal*, *47*(1), 133–180. https://doi.org/10.3102/0002831209345157

Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, *13*(4), 544–559. https://doi.org/10.46743/2160-3715/2008.1573

Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice*, *5*(1), 7–74. https://doi.org/10.1080/0969595980050102

Blömeke, S., Olsen, R. V., & Suhl, U. (2016). Relation of student achievement to the quality of their teachers and instructional quality. In T. Nilsen & J.-E. Gustafsson (Eds.), *Teacher quality, instructional quality and student outcomes* (pp. 21–50). Springer. https://library.oapen.org/bitstream/handle/20.500.12657/27946/1002053.pdf?sequence#page=29

Bonwell, C. C., & Eison, J. A. (1991). *Active learning: Creating excitement in the classroom*. ASHE-ERIC Higher Education Report No. 1. George Washington University.

Canuto, P. P., Choycawen, M., & Pagdawan, R. (2024). The influence of teaching competencies on teachers' performance and students' academic achievement in primary science education. *Problems of Education in the 21st Century*, *82*(1), 29–48. https://doi.org/10.33225/pec/24.82.29

Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., & Neville, A. J. (2014). The use of triangulation in qualitative research. *Oncology Nursing Forum*, *41*(5), 545–547. https://doi.org/10.1188/14.ONF.545-547

Catalogo, M., & Doromal, A. (2022). Implementation of results-based performance management system: An approach for social change in the educational system. *Technium Social Sciences Journal*, *30*(1), 183–193. https://doi.org/10.47577/tssj.v30i1.6319

Cogan, M. L. (1973). *Clinical supervision*. Houghton Mifflin.

Creswell, J. W. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage Publications.

Dale, E. (1946). *Audio-visual methods in teaching*. Dryden Press.

Darling-Hammond, L. (2018). *Empowered educators: How high-performing systems shape teaching quality around the world*. Jossey-Bass.

Denzin, N. K. (1978). *The research act: A theoretical introduction to sociological methods* (2nd ed.). McGraw-Hill.

Dessler, G. (2018). *Human resource management* (15th ed.). Pearson.

Esteban, J., Estuche, R., Navarra, R., Ragos, M. J. T., Tampil, R., & Tenedero, C. J. (2024). Improving teaching performance development: The implementation of results-based performance management system (RPMS). *EDUKASIA: Jurnal Pendidikan dan Pembelajaran*, *11*(1), 64–79. https://doi.org/10.62775/edukasia.v5i2.787

Fauth, B., Decristan, J., Decker, A. T., Büttner, G., Hardy, I., Klieme, E., & Kunter, M. (2019). The effects of teacher competence on student outcomes in elementary science education: The mediating role of teaching quality. *Teaching and Teacher Education*, *86*, Article 102882. https://doi.org/10.1016/j.tate.2019.102882

Flick, U. (2018). Triangulation in data collection. In U. Flick (Ed.), *The SAGE handbook of qualitative data collection* (pp. 527–544). Sage Publications.

Gagné, R. M. (1985). *The conditions of learning and theory of instruction* (4th ed.). Holt, Rinehart and Winston.

Hanushek, E. A., & Rivkin, S. G. (2006). Teacher quality. In E. A. Hanushek & F. Welch (Eds.), *Handbook of the economics of education* (Vol. 2, pp. 1051–1078). Elsevier.

Harrison, H., Birks, M., Franklin, R., & Mills, J. (2017). Case study research: Foundations and methodological orientations. *Forum: Qualitative Social Research*, *18*(1), Article 19. https://doi.org/10.17169/fqs-18.1.2655

Hayes, A. M., & Bulat, J. (2017). *Disabilities inclusive education systems and policies guide for low- and middle-income countries*. RTI Press.

Heale, R., & Forbes, D. (2013). Understanding triangulation in research. *Evidence-Based Nursing*, *16*(4), 98. https://doi.org/10.1136/eb-2013-101494

Kaarbo, J., & Beasley, R. K. (1999). A practical guide to the comparative case study method in political psychology. *Political Psychology*, *20*(2), 369–391. https://doi.org/10.1111/0162-895X.00149

Klieme, E., & Nilsen, T. (2022). Teaching quality and student outcomes in TIMSS and PISA. In T. Nilsen, A. Stancel-Piątak, & J.-E. Gustafsson (Eds.), *International handbook of comparative large-scale studies in education* (pp. 1–34). Springer.

Kolawole, O. J., Damilola, O. W., Matthew, S. G., & Ayomitunde, A. T. (2022). Human capital development and sustainable development: Evidence from Nigeria. *Studia Universitatis Babeș-Bolyai Oeconomica*, *67*(1), 63–76. https://doi.org/10.2478/subboec-2022-0005

König, J., Blömeke, S., Jentsch, A., Schlesinger, L., née Nehls, C. F., Musekamp, F., & Kaiser, G. (2021). The links between pedagogical competence, instructional quality, and mathematics achievement in the lower secondary classroom. *Educational Studies in Mathematics*, *107*(1), 189-212. https://doi.org/10.1007/s10649-020-10021-0

Kunter, M., Klusmann, U., Baumert, J., Richter, D., Voss, T., & Hachfeld, A. (2013). Professional competence of teachers: Effects on instructional quality and student development. *Journal of Educational Psychology*, *105*(3), 805–820. https://doi.org/10.1037/a0032583

Kurniawan, E. P., & Hariyati, N. (2021). Peranan Kompetensi Pedagogik Guru Dalam Pencapaian Prestasi Belajar Siswa. *Inspirasi Manajemen Pendidikan*, 1112-1123. https://ejournal.unesa.ac.id/index.php/inspirasi-manajemen-pendidikan/article/view/43465

Levin, H. M., & Lockheed, M. E. (1991). *Effective schools in developing countries*. World Bank.

Li, Z., & Sun, N. (2023). Higher education quality (HEQ) improvement and economic growth in China. *Journal of the Asia Pacific Economy*, *29*(4), 1638–1661. https://doi.org/10.1080/13547860.2023.2295770

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications.

Mager, R. F. (1962). *Preparing instructional objectives*. Fearon Publishers.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Sage Publications.

Ministry of Education, Culture, Research, and Technology. (2022). *Performance report of the Ministry of Education, Culture, Research, and Technology for 2022*.

Morgan, H. (2024). Using triangulation and crystallization to make qualitative studies trustworthy and rigorous. *The Qualitative Report*, *29*(7), 1844–1856. https://doi.org/10.46743/2160-3715/2024.6071

Mosoge, M. J., & Pilane, M. W. (2003). Performance management: The neglected imperative of accountability systems in education. *South African Journal of Education*, *23*(1), 27–31. https://doi.org/10.15700/201412120947

Mulyasa, E. (2019). *Menjadi guru profesional: Menciptakan pembelajaran kreatif dan menyenangkan*. Remaja Rosdakarya.

Nilsen, T., & Gustafsson, J.-E. (2016). *Teacher quality, instructional quality and student outcomes: Relationships across countries, cohorts and time*. Springer.

Patton, M. Q. (1999). Enhancing the quality and credibility of qualitative analysis. *Health Services Research*, *34*(5 Pt 2), 1189–1208. https://pmc.ncbi.nlm.nih.gov/articles/PMC1089059/

Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). Sage Publications.

Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). Sage Publications.

Seyfried, M., Ansmann, M., & Pohlenz, P. (2019). Institutional isomorphism, entrepreneurship and effectiveness: the adoption and implementation of quality management in teaching and learning in Germany. *Tertiary education and management*, *25*(2), 115-129. https://doi.org/10.1007/s11233-019-09022-3

Sintema, E. J. (2020). Effect of COVID-19 on the performance of grade 12 students: Implications for STEM education. *Eurasia Journal of Mathematics, Science and Technology Education*, *16*(7), Article em1851. https://doi.org/10.29333/ejmste/7893

Sudrajat, S. (2018). Manajemen Kinerja Guru Sekolah Dasar. *Jurnal Administrasi Pendidikan*, *15*(1), 104-119. https://doi.org/10.17509/jap.v25i1.11576

Suryapriadi, Y. E., Gaffar, M. F., Wahab, A. A., & Komariah, A. (2020). Pengelolaan Guru Berbasis Kinerja di Sekolah Laboratorium (Labschool). *Jurnal Administrasi Pendidikan*, *17*(2), 149–162. https://doi.org/10.17509/jap.v27i1.24411

Suyanto, S. (2021). *Pendidikan karakter: Teori dan aplikasi*. Remaja Rosdakarya.

Tikly, L. (2011). Towards a framework for researching the quality of education in low-income countries. *Comparative Education*, *47*(1), 1–23. https://doi.org/10.1080/03050068.2011.541671

Tomlinson, C. A. (2001). *How to differentiate instruction in mixed-ability classrooms* (2nd ed.). Association for Supervision and Curriculum Development.

Van Dooren, W., Bouckaert, G., & Halligan, J. (2015). *Performance management in the public sector* (2nd ed.). Routledge.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Wechsler, M. E., Kirp, D. L., Tinubu Ali, T., Gardner, M., Maier, A., Melnick, H., & Shields, P. M. (2016). *The road to deeper learning: Examining the implementation and impact of Common Core in five California districts*. Learning Policy Institute.

Wiggins, G., & McTighe, J. (1998). *Understanding by design*. Association for Supervision and Curriculum Development.

Wiliam, D. (2011). *Embedded formative assessment*. Solution Tree Press.

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Sage Publications.

Zhang, Y., Kumar, S., Huang, X., & Yuan, Y. (2023). Human capital quality and the regional economic growth: Evidence from China. *Journal of Asian Economics*, *86*, Article 101616. https://doi.org/10.1016/j.asieco.2023.101593

Zubair, A., Sasongko, R. N., & Aliman, A. (2017). Manajemen peningkatan kinerja guru. *Manajer Pendidikan*, *11*(4), 270715. https://ejournal.unib.ac.id/index.php/manajerpendidikan/article/view/3291