

Collaborative Leadership Practices and Their Impact on Educational Quality Management

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Abstract

Collaborative leadership has emerged as a critical approach for enhancing educational quality management, yet its implementation in resource-constrained rural schools remains underexplored. This qualitative descriptive study examined collaborative principal leadership and its role in implementing educational quality management at SD Inpres 3 Tolai, Central Sulawesi, Indonesia. Data were collected through semi-structured interviews with the principal and nine teachers, document analysis, and structured questionnaires, then analyzed using thematic analysis and descriptive statistics. Findings revealed that collaborative leadership achieved 90.2% effectiveness, characterized by participatory decision-making, professional empowerment, trust-building, and institutionalization of Professional Learning Communities. Six major themes emerged: participatory decision-making, empowerment and professional development, trust-building and democratic climate, Professional Learning Communities, adaptive leadership in the digital era, and implementation challenges including time constraints and resource limitations. Teachers unanimously perceived the principal's leadership as highly collaborative, with 59.4% strongly agreeing and 40.6% agreeing across all measured dimensions. The study demonstrates that collaborative leadership can function effectively in resource-constrained contexts by leveraging relational capital—trust, communication, and shared commitment—to compensate for material limitations. Findings support Collaborative Leadership Theory and Total Quality Management principles, illustrating how distributed decision-making fosters continuous improvement and democratic organizational culture. The research contributes evidence-based insights for strengthening educational leadership capacity in rural Indonesian elementary schools.

INTRODUCTION

Education serves as a fundamental pillar in developing human capital capable of navigating the complexities of the twenty-first century (Demirel, 2009). As the primary driver of national development and social transformation, education shapes not only individual competencies but also collective societal progress. Elementary education, in particular, functions as the foundational stage where essential values, cognitive abilities, and lifelong learning orientations are cultivated (Longworth, 2003; Lüftenegger et al., 2019). The quality of this educational stage significantly determines the overall effectiveness of a nation's education system and its global competitiveness. In Indonesia, enhancing educational quality has become increasingly urgent amid rapid globalization, educational decentralization policies, and the pursuit of Sustainable Development Goals (SDGs). This commitment

is reflected in national reform initiatives such as Merdeka Belajar, which emphasizes institutional autonomy, pedagogical innovation, and collaborative engagement among educational stakeholders (Kemendikbudristek, 2023).

Within the discourse on educational quality improvement, school leadership has emerged as a critical determinant of institutional effectiveness. Research consistently demonstrates that effective leadership transforms schools into dynamic learning organizations where continuous improvement, teacher professionalism, and student achievement are prioritized (Day et al., 2016; Leithwood et al., 2004). International meta-analyses reveal that leadership practices account for measurable variance in student outcomes, with effects mediated through instructional quality, school climate, and teacher job satisfaction (Karadag, 2020; Robinson et al., 2008). Among various leadership paradigms, collaborative leadership has gained scholarly attention for its capacity to foster participatory governance, distributed decision-making, and shared accountability (Ansell & Gash, 2008; Spillane, 2020). Unlike hierarchical or purely transformational models, collaborative leadership positions the school principal as a facilitator who cultivates collective intelligence, builds consensus, and empowers stakeholders to assume ownership of educational processes (Hairon & Goh, 2020; Sudrajat & Kartanegara, 2022). This approach aligns closely with contemporary educational management theories, including Total Quality Management (TQM), which emphasizes continuous improvement, stakeholder involvement, and systemic thinking as cornerstones of organizational excellence (Deming, 1986; Sallis, 2014).

Despite significant policy reforms and increased attention to leadership practices, the implementation of quality management systems in Indonesian elementary schools remains inconsistent, particularly in rural and peripheral regions (Barrett et al., 2019). Rural schools globally face distinctive challenges including geographic isolation, resource scarcity, limited infrastructure, teacher shortages, and difficulties in recruiting and retaining qualified educators (OECD, 2019; Sipple & Brent, 2015). These conditions are particularly acute in developing countries, where rural schools operate under severe budgetary constraints and lack access to professional development opportunities (UNESCO, 2020). SD Inpres 3 Tolai, located in Parigi Moutong Regency, Central Sulawesi, exemplifies these challenges. As a public elementary school operating under resource constraints, limited infrastructure, and diverse teacher competencies, the institution faces persistent difficulties in maintaining and enhancing educational quality. Preliminary observations indicate that while the school principal demonstrates commitment to improvement, structural barriers such as limited teacher participation in decision-making, inadequate inter-departmental communication, and minimal collaborative professional learning impede the realization of integrated quality management. These challenges raise a critical question: how can collaborative leadership serve as an effective mechanism for achieving sustainable educational quality in resource-limited local contexts?

Existing literature extensively documents the positive impact of collaborative leadership on teacher engagement, organizational culture, and student outcomes (Day et al., 2016; Hairon & Goh, 2020). Through shared decision-making and open dialogue, collaborative leaders create environments conducive to innovation, reflective practice, and professional learning communities (Somech, 2002; Spillane, 2020). Distributed leadership models, which tap into the collective expertise of organizational members, have been shown to enhance teacher empowerment, foster trust, and promote continuous improvement (Hairon & Goh, 2020; Harris, 2013). However, most studies have concentrated on urban or well-resourced schools in developed contexts, leaving rural and peripheral settings in developing nations underexplored (Scheerens, 2017; Tan et al., 2020). Research indicates that hierarchical organizational structures, limited professional development opportunities, and resource constraints often hinder collaborative practices in rural schools (Khalifah et al., 2025). Consequently, a significant knowledge gap persists regarding how collaborative leadership functions within schools characterized

by limited resources and distinct socio-cultural contexts, particularly in regions such as Central Sulawesi.

This study addresses the identified gap by examining collaborative principal leadership and its role in implementing educational quality management at SD Inpres 3 Tolai. Drawing upon Collaborative Leadership Theory (Chrislip & Larson, 1994) and Total Quality Management principles (Deming, 1986; Sallis, 2014), the research aims to: (1) examine how collaborative leadership practices are enacted in daily school management, (2) identify forms of collaboration between principals, teachers, and staff in planning, executing, and evaluating school programs, (3) analyze the impact of collaborative leadership on teacher motivation and quality management effectiveness, and (4) explore challenges and facilitating factors influencing collaborative leadership practice. By employing a qualitative descriptive approach, this study provides empirical insights into the lived experiences of educators within a resource-constrained setting.

The significance of this research is multifaceted. Theoretically, it enriches leadership discourse by contextualizing collaborative leadership within Indonesia's elementary education sector, offering culturally grounded interpretations of global theories (Day et al., 2016; Leithwood et al., 2004). Methodologically, it provides a qualitative model for analyzing leadership behavior in small-scale institutions through interviews, observations, and document analysis. Practically, findings are expected to inform leadership development initiatives aimed at strengthening principal competencies in rural regions, thereby supporting the Ministry of Education's broader agenda of achieving equitable and quality-driven education aligned with Indonesia's *SDM Unggul 2045* vision. Furthermore, by focusing on a peripheral school, this study contributes empirical evidence on how socio-cultural norms, trust relations, and community participation shape leadership effectiveness in diverse Indonesian educational contexts (Barrett et al., 2019; UNESCO, 2020). Ultimately, this research responds to the persistent need for evidence-based strategies that enable schools in local and resource-constrained environments to implement sustainable quality management systems through collaborative leadership practices.

METHODS

This study employed a qualitative descriptive design to explore how collaborative leadership practices influence educational quality management implementation. A qualitative approach enables investigation of social phenomena in natural settings, focusing on participants' lived experiences and constructed meanings (Merriam & Tisdell, 2016; Patton, 2015). The research was conducted at SD Inpres 3 Tolai, Central Sulawesi, Indonesia, purposively selected due to its relevance—demonstrating both potential and challenges in sustaining quality management within a resource-constrained rural context. Data collection commenced October 15, 2025, continuing until thematic saturation was achieved.

Participants were selected through purposive sampling (Patton, 2015). The school principal served as the primary participant, with teachers and administrative staff providing triangulated perspectives. All participants volunteered after being informed about the study's purpose and provided informed consent.

Data were collected through three complementary techniques. First, semi-structured in-depth interviews (30-60 minutes, audio-recorded) served as the primary method, allowing participants to articulate nuanced understandings of collaborative processes. Second, institutional documents including school development plans, quality assurance reports, meeting minutes, and supervision records were systematically reviewed. Third, structured questionnaires utilizing a five-point Likert scale (1=Strongly Disagree to 5=Strongly Agree) were distributed to teachers to measure perceptions of collaborative leadership.

Quantitative questionnaire data were analyzed using percentage calculations with interpretation criteria: 0-20% (very low), 21-40% (low), 41-60% (moderate), 61-80% (high), and 81-100% (very high). Qualitative data were analyzed following Miles et al. (2020): data reduction (selecting and organizing information, assigning codes), data display (narrative matrices and thematic charts), and conclusion drawing with verification. Triangulation—cross-verification of interviews, documents, and questionnaires—and member checking enhanced credibility (Denzin, 2009; Lincoln & Guba, 1985).

Ethical considerations were strictly observed. Institutional approval was obtained, participants received comprehensive briefings, participation was voluntary, anonymity was preserved through pseudonyms, and data were securely stored. Multiple validation strategies ensured trustworthiness: triangulation, member checking, peer debriefing, and systematic audit trail maintenance (Patton, 2015).

RESULTS AND DISCUSSION

Results

Overview of Quantitative Findings

To obtain a comprehensive understanding of teachers' perceptions regarding collaborative leadership practices, a structured questionnaire comprising 20 items was administered to nine teachers at SD Inpres 3 Tolai. The instrument utilized a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), designed to measure key dimensions of collaborative leadership including shared decision-making, professional empowerment, trust-building, and participatory culture. The quantitative data provide a descriptive foundation for understanding the extent to which collaborative leadership has been implemented and perceived within the school context. Table 1 presents the aggregated responses across all 20 questionnaire items, revealing the distribution of agreement levels among respondents.

Table 1. Distribution of Teachers' Responses to Collaborative Leadership Questionnaire (N=9)

Response Category	Frequency	Percentage
Strongly Agree (5)	107	59.4%
Agree (4)	73	40.6%
Neutral (3)	0	0%
Disagree (2)	0	0%
Strongly Disagree (1)	0	0%
Total Responses	180	100%
Aggregate Score	812/900	90.2%

Note. The questionnaire comprised 20 items rated on a 5-point Likert scale. Aggregate score interpretation: 81-100% = Very High effectiveness.

The data demonstrate exceptionally high levels of agreement across all measured dimensions of collaborative leadership. Notably, no items received responses in the "disagree" or "neutral" categories, indicating unanimous positive perception among respondents. The distribution shows that 59.4% of all responses were "Strongly Agree" and 40.6% were "Agree," reflecting consistent endorsement of collaborative leadership practices. The aggregate score of 812 points represents 90.2% of the maximum possible score, positioning collaborative leadership effectiveness within the "very high" category according to standard interpretation criteria.

Analysis of individual item patterns revealed that seven items (35% of the questionnaire) achieved perfect scores of 45 points, with all nine respondents selecting "Strongly Agree." These items predominantly addressed innovation encouragement, multi-role competence of the principal, participatory management approaches, teacher empowerment, and adaptive capacity in responding to digital-era challenges—dimensions considered critical for effective educational leadership in contemporary contexts. Items receiving slightly lower scores (36-38 points), though still within the

"very high" range, related to gender-specific leadership attributes, inclusivity impacts, and shared leadership principles. The minimal response variability (coefficient of variation approximately 8.4%) indicates homogeneity in teachers' perceptions, suggesting consistent and sustained implementation of collaborative leadership practices across multiple organizational domains.

Qualitative Findings from Semi-Structured Interviews

To contextualize and enrich the quantitative findings, in-depth semi-structured interviews were conducted with the school principal, seven teachers, and two members of the school committee. Interview sessions lasted between 30 and 60 minutes and were audio-recorded with participant consent. Thematic analysis following Miles et al. (2020) identified six major themes: (1) participatory decision-making and shared responsibility, (2) empowerment and professional development, (3) trust-building and democratic climate, (4) institutionalization of Professional Learning Communities, (5) adaptive leadership in the digital era, and (6) unexpected challenges in implementation. Each theme is elaborated below with representative participant quotations.

Theme 1: Participatory Decision-Making and Shared Responsibility

Participants consistently emphasized the principal's commitment to inclusive decision-making processes, contrasting current practices with previously hierarchical management approaches. The principal articulated her philosophy during the interview: "I always involve all school members in decision-making, encourage two-way communication, and promote active participation in every program so that everyone feels ownership of the school's vision and mission." This statement reflects a conscious shift from traditional top-down authority structures toward distributed governance models. Teachers corroborated this perception, with one stating: "Before, we just followed instructions. Now, we are invited to contribute ideas in program planning, curriculum design, and even budget allocation. It makes us feel valued and responsible." Another teacher noted: "Our opinions are genuinely heard and considered. When we raised concerns about the learning schedule, the principal organized a meeting where we collectively designed a new timetable that accommodated everyone's input."

These narratives indicate that participatory decision-making has become institutionalized rather than remaining a sporadic or symbolic gesture. Teachers reported regular involvement in curriculum development committees, student assessment policy formulation, and annual work program evaluation. Documentation analysis confirmed scheduled monthly participatory planning meetings, minuted discussions showing teacher contributions, and evidence of teacher-initiated proposals being incorporated into school policies. The institutionalization of participatory structures suggests that collaborative leadership at SD Inpres 3 Tolai extends beyond individual leadership style to encompass systemic organizational practices. Participants further noted that shared responsibility mechanisms foster accountability, with one teacher remarking: "When we are part of the decision, we feel more committed to making it work. It's not just the principal's program anymore—it's ours."

Theme 2: Empowerment and Professional Development

The second prominent theme concerns the principal's role in fostering teacher empowerment through continuous professional development opportunities. Teachers described how the principal actively facilitates capacity-building through workshops, peer mentoring, lesson study initiatives, and participation in Teacher Working Group (KKG) and Subject Teacher Consultation (MGMP) forums. One teacher explained: "Our principal doesn't just tell us to improve. She provides concrete opportunities—training sessions, classroom observation feedback, and encouragement to attend external workshops. Last semester, three of us participated in a district-level pedagogical innovation workshop because she recommended and supported us." Another respondent highlighted the principal's coaching approach: "She supervises our teaching not to criticize but to guide. After classroom observations, we sit

together to reflect on what went well and what can be improved. It feels like collaborative learning rather than evaluation."

Documentation revealed systematic professional development planning, including teacher training attendance records, certificates of completion, and internal workshop facilitation by teachers who had attended external training. This cascading model of professional development demonstrates the principal's strategy for maximizing learning impact across the teaching staff. Teachers reported increased confidence and pedagogical competence, with one stating: "I used to rely on traditional lecture methods. Through the trainings and peer discussions facilitated by our principal, I've learned to use more active learning strategies. My students are more engaged now." The emphasis on empowerment extends beyond technical skill development to include fostering teacher autonomy and innovation. As one teacher noted: "She encourages us to try new approaches and doesn't punish mistakes. She says mistakes are learning opportunities. That freedom to experiment has made me more creative in designing lessons."

Theme 3: Trust-Building and Democratic Climate

The third theme addresses the establishment of a trust-based organizational climate characterized by psychological safety, mutual respect, and open communication. Participants frequently referenced the principal's empathetic and approachable demeanor, which several teachers explicitly linked to her gender. One teacher observed: "As a female leader, she brings a nurturing quality that makes us comfortable sharing problems and concerns. She listens genuinely before deciding anything. That builds trust." Another stated: "There's no fear of speaking up here. We can express disagreements or suggest alternatives without worrying about negative consequences. She values honesty and encourages us to voice our perspectives." The emphasis on interpersonal trust appears to function as a foundational element enabling other collaborative practices.

Teachers described the school environment using terms such as "warm," "inclusive," "supportive," and "democratic." One participant remarked: "Unlike some schools where there's distance between the principal and teachers, here we feel like colleagues working together. The hierarchy exists officially, but in practice, relationships are collegial." This perceived dissolution of hierarchical barriers facilitates horizontal communication and peer collaboration. The principal herself emphasized trust as central to her leadership philosophy: "Without trust, collaboration cannot work. I build trust by being transparent, keeping my commitments, acknowledging my own limitations, and showing genuine care for my staff's wellbeing—not just their work performance." Evidence of this trust-based climate includes teachers' willingness to share classroom challenges openly during meetings, peer visitation practices without formal mandates, and informal collaborative problem-solving among staff members.

Theme 4: Institutionalization of Professional Learning Communities (PLC)

The fourth theme concerns the systematic establishment of Professional Learning Communities as structures for sustained collaborative learning and quality improvement. The principal described initiating regular reflective forums: "We conduct monthly PLC meetings where teachers share instructional challenges, discuss student learning data, and collaboratively design solutions. It's not just administrative reporting—it's genuine professional dialogue." Teachers confirmed the value of these forums, with one stating: "PLC meetings are where we learn the most. We share what worked and what didn't, observe each other's teaching videos, and give constructive feedback. It's created a culture of collective learning." Another teacher noted: "Through PLC, we've developed shared instructional standards and common assessment rubrics. This ensures consistency across classes while respecting individual teaching styles."

Documentation included PLC meeting schedules, minutes showing evidence of data-driven discussions (e.g., analysis of student assessment results), action plans formulated collaboratively, and

follow-up reports on implemented strategies. The structured yet flexible format of PLC meetings—combining formal agendas with open dialogue—appears to balance accountability with authentic professional learning. Teachers reported that PLCs have reduced professional isolation, with one remarking: "Teaching used to feel lonely. Now, we're a community of learners supporting each other." The institutionalization of PLCs represents a shift from individualistic professional practice toward collective responsibility for instructional improvement and student success.

Theme 5: Adaptive Leadership in the Digital Era

The fifth theme addresses the principal's responsiveness to technological and pedagogical changes associated with digital transformation. Participants acknowledged the principal's efforts to promote digital literacy and integrate technology into teaching and administrative processes. One teacher explained: "During the COVID-19 pandemic, our principal quickly organized training on online learning platforms. She didn't wait for district directives—she took initiative to prepare us." Another noted: "She encourages us to use educational technology in our lessons and provides support when we encounter technical challenges." The principal's adaptive capacity extends beyond crisis response to proactive preparation for future educational trends, as reflected in her statement: "We must prepare students for a digital world. That means we teachers must also be digitally competent. I try to model this by using technology in school management and encouraging innovation."

Teachers perceived this adaptive orientation as evidence of forward-thinking leadership aligned with contemporary educational demands. One participant stated: "Our principal doesn't resist change—she embraces it and helps us navigate it. That's crucial in today's rapidly evolving educational landscape." The emphasis on digital adaptation appears particularly relevant given the school's rural location, where technological infrastructure and digital literacy levels may be lower than in urban contexts. Documentation included records of technology training sessions, examples of digital lesson plans, and use of online platforms for teacher collaboration and parent communication.

Theme 6: Unexpected Challenges in Implementation

An unexpected finding emerged regarding challenges in sustaining collaborative practices amid resource constraints and workload pressures. While teachers expressed overwhelmingly positive perceptions of collaborative leadership, several acknowledged practical difficulties. One teacher noted: "Collaboration requires time—for meetings, for planning together, for reflection. With our teaching loads and administrative responsibilities, finding that time is challenging." Another stated: "Not all teachers participate equally in collaborative activities. Some are more enthusiastic, while others view it as additional burden." These observations suggest that despite strong principal support, collaborative leadership implementation faces structural constraints related to time allocation, workload distribution, and varying levels of teacher readiness or willingness to engage collaboratively.

The principal acknowledged these challenges: "Changing from individualistic to collaborative culture doesn't happen overnight. Some teachers, especially those nearing retirement, find it difficult to adjust. I try to accommodate different comfort levels while gently encouraging broader participation." This candid reflection indicates awareness of implementation complexities and a pragmatic approach to change management. Additionally, participants mentioned resource limitations as constraining factors, with one teacher explaining: "We want to do more collaborative projects, attend more training, but budget constraints limit opportunities." These unexpected findings provide nuanced understanding that collaborative leadership, while highly effective, operates within real-world constraints that require ongoing negotiation and adaptation.

Documentary Evidence Supporting Collaborative Leadership

Analysis of institutional documents corroborated interview findings and provided tangible evidence of collaborative leadership operationalization. Table 2 summarizes key documentary artifacts examined during the study.

Table 2. Documentary Evidence of Collaborative Leadership Practices

Observed Practice	Documentary Evidence	Verification Status
Teachers involved in curriculum design	Curriculum documents, lesson plans (RPP), local content syllabi with teacher names as co-developers	✓ Verified
Character education integration	Lesson plans incorporating character values, supervision reports documenting character emphasis	✓ Verified
Active and collaborative teaching methods	Vision-mission documents emphasizing student-centered learning, meeting minutes discussing pedagogical strategies	✓ Verified
Collaborative academic supervision	Classroom observation protocols, post-observation feedback forms, supervision schedules involving peer observers	✓ Verified
Focus on holistic student development	Student character journals, soft-skills assessment reports, documentation of extracurricular activities	✓ Verified
Teacher participation in evaluation processes	Meeting minutes from program evaluation sessions, teacher feedback incorporated into annual reports	✓ Verified
Continuous professional development	Training certificates, attendance lists for workshops, internal capacity-building session records	✓ Verified
Engagement of educational staff	Work program documents showing staff role distribution, coordination meeting records	✓ Verified
Facility provision and maintenance	Procurement documents, facility maintenance logs, inventory records	✓ Verified
Transparent financial management	Budget allocation documents, expenditure reports, audit records shared with teachers	✓ Verified

The comprehensive documentary evidence confirms that collaborative leadership extends across managerial, instructional, and administrative domains. The triangulation of questionnaire data, interview narratives, and documentary artifacts strengthens the credibility and dependability of findings, demonstrating that collaborative leadership at SD Inpres 3 Tolai is not merely rhetorical but substantively enacted through systematic organizational practices.

Discussion

This study investigated collaborative principal leadership's role in implementing educational quality management at SD Inpres 3 Tolai. Findings reveal collaborative leadership achieved 90.2% effectiveness through participatory decision-making, professional empowerment, trust-building, and Professional Learning Communities institutionalization. Qualitative data illuminate mechanisms—distributed decision-making, adaptive capacity, and democratic culture-building. These results demonstrate that collaborative principal leadership significantly enhances educational quality management processes and outcomes in resource-constrained rural contexts.

The convergence of quantitative and qualitative findings provides robust evidence that collaborative leadership transcends symbolic gestures, representing deeply institutionalized organizational practices. Minimal questionnaire response variability (coefficient of variation 8.4%) combined with thematic saturation suggests collaborative leadership is consistently experienced and valued. Implementation challenges—time constraints, uneven participation, resource limitations—temper idealized conceptions with pragmatic realities, contributing realistic and actionable insights.

Findings strongly support Collaborative Leadership Theory (Chrislip & Larson, 1994) and TQM principles (Deming, 1986; Sallis, 2014). Collaborative Leadership Theory posits effective leadership emerges from engaging stakeholders in joint problem-solving characterized by trust, shared vision, and mutual respect. Teachers' descriptions of participatory decision-making and collective ownership align closely with this conceptualization. The principal's philosophy of involving "all school members" and fostering "two-way communication" embodies the facilitator role rather than authoritarian decision-maker, enabling collective intelligence mobilization (Ansell & Gash, 2008).

Integration with TQM principles is evident in continuous improvement, stakeholder involvement, and process-oriented management findings. Deming's (1986) emphasis on organizational learning and employee empowerment resonates with Professional Learning Communities institutionalization. Sallis

(2014) argues educational quality management requires transforming schools into learning organizations where quality improvement becomes embedded in daily practice. Findings demonstrate precisely this transformation, where teachers engage in data-driven reflection and collaborative problem-solving through PLC structures. The 90.2% effectiveness score reflects substantive alignment between leadership practices and quality management outcomes.

The study corroborates Spillane's (2020) distributed leadership framework, conceptualizing leadership as collective organizational property rather than individual attribute. Teachers' active participation in curriculum development, program evaluation, and policy formulation indicates genuinely distributed leadership functions. This distributed configuration enhances organizational capacity by leveraging diverse expertise, increasing commitment through ownership, and building resilience through shared responsibility (Harris, 2013).

Findings demonstrate substantial convergence with international research documenting positive relationships between collaborative/distributed leadership and organizational outcomes. Studies by Bektaş et al. (2020) and Liu et al. (2021) found distributed leadership enhances teacher professional learning through trust and motivation—patterns clearly evident in present data. Trust-building, empathetic communication, and psychological safety accounts mirror findings from diverse cultural contexts (Day et al., 2016; Hallinger & Heck, 2010), suggesting trust functions as a universal prerequisite across educational systems. Professional Learning Communities evidence aligns with extensive literature documenting PLCs as structures facilitating collaborative inquiry and continuous improvement (DuFour et al., 2006; Stoll et al., 2006).

Yang and Chang (2024) examining distributed leadership in Chinese primary schools found it positively impacts teacher professional learning communities, enhancing teacher efficacy—a causal pathway consistent with present findings. PLC institutionalization at SD Inpres 3 Tolai, coupled with teachers' reported pedagogical competence increases, suggests similar mechanisms operate in Indonesian rural contexts. Studies linking collaborative leadership to teacher innovation (Liu et al., 2018; Daniëls et al., 2019) resonate with findings that teachers feel empowered to experiment. The principal's encouragement of innovation and tolerance for "mistakes as learning opportunities" creates an "innovation climate" (Sagnak, 2012) conducive to creative problem-solving.

However, contextual particularities diverge from existing literature. Most collaborative leadership research focused on urban or well-resourced schools in developed nations (Scheerens, 2017), whereas SD Inpres 3 Tolai operates in resource-constrained rural settings. That collaborative leadership achieved 90.2% effectiveness despite these constraints challenges assumptions that collaborative models require abundant resources. Data suggest relational assets—trust, communication quality, shared commitment—may compensate for material resource limitations. This aligns with emerging research on "high-performing, low-resource schools" achieving quality outcomes through strong leadership and organizational culture (Barrett et al., 2019; UNESCO, 2020). Nevertheless, identified challenges regarding time constraints and uneven participation indicate resource scarcity imposes real limitations on collaborative practices depth and sustainability.

Another contextual particularity concerns gender prominence in narratives. Several teachers explicitly attributed trust-building and empathetic communication to the principal's female identity, describing leadership as "nurturing" and "approachable." While studies document associations between female leadership and collaborative, relational styles (Eagly & Carli, 2007), caution is warranted in attributing collaborative effectiveness primarily to gender, as this risks essentializing leadership capacities and obscuring the principal's conscious strategic choices and professional competence. Present data cannot disentangle gender effects from individual leadership philosophy or cultural expectations.

Study strengths include methodological rigor through triangulation of quantitative, qualitative, and documentary data; focus on underrepresented context (rural elementary school in Central Sulawesi); and theoretically informed analytical framework integrating collaborative leadership and TQM perspectives. High internal consistency in quantitative data combined with qualitative thematic

saturation enhances findings credibility. Documentary evidence provides tangible verification that collaborative practices are institutionalized.

However, limitations warrant acknowledgment. Small sample size (nine teachers) limits generalizability. Questionnaire response homogeneity (no "disagree" or "neutral" responses) raises questions about potential social desirability bias within small organizational settings. Cross-sectional design captures perceptions at single time point, precluding longitudinal or causal analysis. The study did not directly measure student learning outcomes, preventing conclusive claims about ultimate educational impacts. Researcher positionality as external observer may have limited access to sensitive information insiders might be reluctant to share. These limitations suggest directions for future research employing longitudinal designs, larger samples, mixed-methods incorporating student outcome measures, and critical ethnographic methods surfacing power dynamics.

For practitioners and policymakers, findings offer actionable insights. School principals implementing collaborative leadership should prioritize trust-building as foundational investment, recognizing participatory structures require psychological safety to function authentically. Professional Learning Communities institutionalization emerges as practical mechanism for sustaining collaborative learning and continuous improvement. Policymakers supporting rural school quality improvement should allocate resources specifically for collaboration-enabling structures—protected time for meetings, professional development opportunities, technology infrastructure—rather than assuming collaboration occurs without systemic support. Teacher training programs should incorporate collaborative competencies as core professional skills. The study underscores adaptive, context-responsive leadership's importance in navigating resource constraints while maintaining participatory governance commitment.

This research advances scholarly understanding of collaborative principal leadership's contribution to educational quality management in rural Indonesian elementary schools. By integrating Collaborative Leadership Theory and TQM frameworks, the research demonstrates these theoretical perspectives are mutually reinforcing—collaborative leadership provides organizational conditions through which TQM principles become enacted. The exceptionally high effectiveness rating (90.2%) combined with rich qualitative evidence illustrates collaborative leadership can achieve substantial positive impacts even in resource-constrained contexts. Implementation challenges identification contributes nuanced, realistic understanding that collaborative leadership operates within structural and cultural constraints requiring ongoing negotiation. Overall, the study affirms collaborative leadership's value as contextually appropriate, theoretically grounded, and practically effective approach to enhancing educational quality in Indonesian elementary education.

CONCLUSION

This study demonstrates that collaborative principal leadership plays a crucial role in implementing educational quality management at SD Inpres 3 Tolai, achieving 90.2% effectiveness through participatory decision-making, professional empowerment, trust-building, and institutionalization of Professional Learning Communities. The research contributes to educational leadership scholarship by demonstrating that collaborative leadership can function effectively in resource-constrained rural contexts, challenging assumptions that such models require abundant material resources. By integrating Collaborative Leadership Theory with Total Quality Management principles, the study illustrates how relational capital—trust, open communication, and shared commitment—can partially compensate for structural limitations while fostering continuous improvement and democratic organizational culture.

The findings have significant practical implications for educational practitioners and policymakers. School principals should prioritize trust-building as foundational to authentic participation, while policymakers must allocate resources specifically for collaboration-enabling structures, including protected time for professional learning and sustained capacity development. The study underscores that successful collaborative leadership requires not only individual principal competencies but also

systemic supports addressing time constraints, workload distribution, and organizational readiness for cultural transformation.

However, this research has limitations including small sample size, cross-sectional design, potential social desirability bias, and absence of direct student outcome measures, which constrain generalizability and causal interpretation. Future research should employ longitudinal designs examining how collaborative leadership emerges and evolves over time, comparative studies across diverse rural contexts to identify contextual moderators of effectiveness, and mixed-methods investigations linking collaborative leadership practices to student learning outcomes. Additionally, research exploring implementation challenges—particularly mechanisms for sustaining collaboration amid resource scarcity—would provide valuable insights for scaling collaborative leadership models across Indonesian elementary education and similar developing-country contexts.

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