



Transformational Leadership of Principals in Strengthening Professional Learning Communities in Public Elementary Schools of Banten Province

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ABSTRAK

Penelitian ini mengkaji strategi kepemimpinan kepala sekolah dalam mengembangkan budaya *Professional Learning Community* (PLC) pada sekolah dasar negeri di Provinsi Banten, Indonesia. Penelitian ini dilatarbelakangi oleh meningkatnya kebutuhan akan pembelajaran profesional yang kolaboratif di sekolah, sementara banyak sekolah dasar negeri belum berhasil menerapkan praktik PLC secara optimal. Penelitian ini bertujuan untuk menganalisis strategi kepemimpinan, faktor pendukung dan penghambat, respons guru, dampak penerapan PLC, serta penyebab belum berhasilnya adopsi PLC di beberapa sekolah. Penelitian ini menggunakan pendekatan kualitatif dengan desain studi kasus multisitus yang melibatkan sepuluh sekolah dasar negeri di berbagai kabupaten dan kota di Provinsi Banten. Data dikumpulkan melalui wawancara mendalam, observasi partisipatif, dan analisis dokumen dengan melibatkan kepala sekolah dan guru sebagai partisipan utama. Data dianalisis menggunakan analisis kualitatif interaktif, analisis tematik, serta NVivo 14 untuk memperkuat proses pengodean, kategorisasi, dan interpretasi lintas kasus. Keabsahan data dijamin melalui triangulasi, *member checking*, *peer debriefing*, dan prosedur *audit trail*. Hasil penelitian menunjukkan bahwa kepemimpinan kepala sekolah memainkan peran sentral dalam membentuk budaya PLC yang berkelanjutan melalui praktik kepemimpinan transformasional dan kolaboratif. Sekolah yang berhasil menerapkan PLC menunjukkan keselarasan visi yang kuat, pembelajaran profesional secara kolektif, dialog reflektif, serta berkurangnya isolasi guru. Implementasi PLC memperkuat profesionalisme guru, efikasi kolektif, dan kualitas pembelajaran. Namun, beban administratif, keterbatasan waktu, resistensi guru, serta pemahaman konseptual tentang PLC yang belum memadai di kalangan sebagian kepala sekolah menjadi hambatan utama dalam implementasi. Teknologi berfungsi sebagai alat pendukung, tetapi tidak dapat menggantikan kepercayaan relasional dan budaya kolaboratif. Penelitian ini menyimpulkan bahwa pengembangan PLC yang berkelanjutan membutuhkan kepemimpinan instruksional, kepercayaan organisasi, dukungan kebijakan struktural, serta pengembangan profesional kepala sekolah yang sistematis untuk memperkuat budaya pembelajaran kolaboratif di sekolah dasar negeri Indonesia

Kata Kunci: Kepemimpinan Kepala Sekolah; *Professional Learning Community* (PLC); Profesionalisme Guru; Budaya Kolaboratif; Sekolah Dasar Negeri.

ABSTRACT

This study investigates principal leadership strategies in developing Professional Learning Community (PLC) culture in public elementary schools in Banten Province, Indonesia. The research addresses the increasing demand for collaborative professional learning in schools while many public elementary schools have not yet successfully implemented PLC practices. The study aims to analyze leadership strategies, supporting and inhibiting factors, teacher responses, the impact of PLC implementation, and the causes of unsuccessful PLC adoption in several schools. This research employed a qualitative

approach with a multiple case study design involving ten public elementary schools across regencies and municipalities in Banten Province. Data were collected through in-depth interviews, participatory observations, and document analysis involving principals and teachers as key participants. Data were analyzed using interactive qualitative analysis, thematic analysis, and NVivo 14 to strengthen coding, categorization, and cross-case interpretation. Trustworthiness was ensured through triangulation, member checking, peer debriefing, and audit trail procedures. The findings reveal that principal leadership plays a central role in shaping sustainable PLC culture through transformational and collaborative leadership practices. Successful schools demonstrated strong vision alignment, collective professional learning, reflective dialogue, and reduced teacher isolation. PLC implementation strengthened teacher professionalism, collective efficacy, and instructional quality. However, administrative burdens, limited time, teacher resistance, and inadequate conceptual understanding of PLC among some principals became major barriers to implementation. Technology functioned as a supporting tool but could not substitute relational trust and collaborative culture. The study concludes that sustainable PLC development requires instructional leadership, organizational trust, structural policy support, and systematic principal professional development to strengthen collaborative learning culture in Indonesian public elementary schools.

Keywords: *Principal Leadership; Professional Learning Community (PLC); Teacher Professionalism; Collaborative Culture; Public Elementary Schools*

INTRODUCTION

Improving teacher professionalism has become a crucial factor in enhancing the quality of education in the era of the Industrial Revolution 4.0 and Society 5.0. Rapid social transformation, technological advancement, and the demands of 21st-century competencies require educational institutions not only to focus on knowledge transfer but also to develop students' critical thinking, creativity, collaboration, communication skills, and adaptability to global changes (Lagarense et al., 2025). In this context, teachers are expected to continuously improve their pedagogical, professional, social, and personal competencies in order to create innovative, adaptive, and student-centered learning environments (Aziz et al., 2025). Therefore, strengthening teacher professionalism is considered a strategic step toward improving the overall quality of education. The importance of teacher professionalism is aligned with the goals of the Indonesian national education system as stated in Law Number 20 of 2003 concerning the National Education System, which emphasizes the development of students into individuals who are knowledgeable, ethical, faithful, and socially responsible. However, various educational indicators demonstrate that the quality of education in Indonesia remains relatively low. The results of the Programme for International Student Assessment (PISA) 2022 placed Indonesia in the 74th position out of 79 participating countries, indicating low achievement in literacy, numeracy, and science competencies. Furthermore, the 2024 National Assessment data revealed that the quality of classroom learning in many schools remains suboptimal, particularly in creating active, collaborative, and student-centered learning processes. These findings indicate that improving educational quality cannot be separated from systematic and sustainable efforts to strengthen teacher professionalism. One of the approaches considered effective in improving teacher professionalism is the implementation of Professional Learning Communities (PLC). PLC refers to a collaborative forum where teachers share experiences, exchange knowledge, reflect on instructional practices, and discuss solutions to various classroom challenges (Buttram & Farley-Ripple, 2016). Through PLC, teachers are positioned not merely as instructional practitioners but also as lifelong learners who continuously develop their professional capacities through

collective learning cultures. This approach transforms schools into dynamic learning organizations where collaboration, reflection, and innovation become integral parts of educational culture (DeMatthews, 2014).

Previous studies have demonstrated that PLC implementation positively contributes to teacher professional development and learning quality improvement. Research conducted by Richard DuFour emphasized that PLC fosters collaborative cultures focused on improving student learning outcomes. Other studies have shown that PLC enhances instructional practices, strengthens the integration of digital technology in learning, improves teacher self-efficacy, and promotes reflective and continuous professional learning cultures. International studies predominantly associate PLC implementation with transformational leadership practices exercised by school principals in creating collaborative educational environments (Ardiani et al., 2025). In Indonesia, PLC implementation has been strengthened since the introduction of the Merdeka Curriculum through the Circular Letter of the Directorate General of Teachers and Education Personnel Number 4263/B/HK.04.01/2023 concerning the Optimization of Learning Communities, followed by the “Teacher Learning Day” policy introduced in 2025. These policies encourage schools to establish school-based learning communities that facilitate teacher collaboration and continuous professional development. Nevertheless, the implementation of PLC in many regions remains far from optimal, particularly at the public elementary school level (Erlisa, 2024).

In Banten Province, the implementation of PLC in public elementary schools remains relatively low. A large number of schools have not yet institutionalized PLC as part of their school culture. Instead, PLC activities are often conducted sporadically and administratively without meaningful collaboration. Several factors contribute to this condition, including teachers’ perceptions that PLC is merely an additional administrative burden, weak collaborative culture among teachers, limited structural support, and insufficient involvement of school principals in fostering professional learning cultures (Hasbi, 2025). In fact, principals play a strategic role as instructional leaders responsible for motivating teachers, encouraging collaboration, and building sustainable professional cultures within schools. Previous studies have largely focused on the relationship between PLC and transformational leadership or the impact of PLC on learning quality improvement (Voelkel, 2019).

However, studies specifically examining school principals’ leadership strategies in developing PLC culture at public elementary schools in Indonesia, particularly within the context of the Merdeka Curriculum and Teacher Learning Day policies, remain limited. Moreover, there is still a lack of comprehensive studies investigating the supporting and inhibiting factors of PLC implementation, teachers’ responses toward principals’ leadership strategies, and the impact of PLC culture on teacher professionalism and instructional quality in specific regional contexts (Qu et al., 2025). Based on these conditions, this study offers novelty by focusing on school principals’ leadership strategies as the primary factor in developing Professional Learning Community culture in public elementary schools in Banten Province (Hua et al., 2024). This research not only analyzes the leadership strategies implemented by principals but also examines the supporting and inhibiting factors, teachers’ responses toward leadership practices, and the impact of PLC implementation on teacher professionalism and learning quality. Therefore, this study is

expected to contribute theoretically to the development of educational leadership and PLC studies, while also providing practical recommendations for school principals, teachers, and educational policymakers in strengthening sustainable professional learning cultures in elementary schools

RESEARCH METHOD

This study was conducted in public elementary schools (Sekolah Dasar Negeri/SDN) across Banten. The selection of research sites was based on the condition that, by 2025, a majority of SDNs in Banten Province had not yet implemented Professional Learning Communities (PLCs). Of the 3,852 SDNs in the province, approximately 61% had not implemented PLCs, while only 39% had adopted them. To obtain comprehensive and representative findings, the study involved ten SDNs located across regencies and municipalities in Banten Province. Six schools that had already implemented PLCs were selected from both regency and municipal areas, including schools from Tangerang Regency, Serang Regency, Pandeglang Regency, Serang City, Cilegon City, and South Tangerang City.

The selection criteria included schools with accreditation A, schools that had implemented PLCs, and schools representing diverse geographical and administrative characteristics such as urban and semi-urban settings. In addition, four schools that had not implemented PLCs were selected from Pandeglang Regency, Lebak Regency, Tangerang City, and Serang City to explore factors contributing to the absence of PLC implementation. The study applied the principle of maximum variation sampling to ensure contextual diversity and enrich cross-case interpretation. Rather than aiming for statistical generalization, the research emphasized analytical generalization through in-depth exploration of multiple cases. The selected schools were expected to provide rich empirical insights into principal leadership strategies in developing Professional Learning Community culture within different educational and socio-cultural contexts in Banten Province.

Research Design

This study employed a qualitative approach grounded in the social constructivist paradigm. Qualitative research was considered appropriate because the study sought to understand complex social phenomena related to principal leadership strategies and the development of Professional Learning Community culture within natural school settings. In this approach, the researcher functioned as the primary instrument who interacted directly with participants and interpreted meanings emerging from social interactions and organizational practices. The research adopted a multiple case study design to enable an in-depth exploration of leadership practices across different schools. Each school was treated as an independent case, allowing the researcher to conduct cross-case analysis to identify similarities, differences, and recurring patterns. This design strengthened contextual understanding and enhanced the external validity of findings through replication logic across multiple educational settings. The multiple case study approach also allowed the researcher to examine how leadership strategies were shaped by various contextual factors, including geographical location, institutional culture, and policy support. The design aligned with the collaborative philosophy of Professional Learning

Communities, which emphasizes collective learning, reflective practice, and continuous professional development among teachers.

Data Collection Techniques

Data collection was conducted using three primary techniques: in-depth interviews, participant observation, and document analysis. These techniques were integrated to ensure triangulation and enhance the credibility of the findings. In-depth semi-structured interviews served as the primary data collection method. Interviews were conducted with principals and teachers to explore their experiences, perceptions, and reflections regarding leadership strategies in developing PLC culture. The interviews focused on leadership vision, collaborative leadership, communication, teacher motivation, decision-making, implementation challenges, supporting and inhibiting factors, teacher responses, and the impact of PLC implementation on teacher professionalism and learning quality. Interviews were conducted both face-to-face and online, recorded with participant consent, and transcribed verbatim to preserve data authenticity.

Participant observation was carried out through direct involvement in school activities related to PLC implementation, such as reflective meetings, collaborative teacher discussions, and professional development workshops. The researcher acted as an observer-as-participant to capture authentic interactions, leadership practices, collaboration patterns, and organizational dynamics within the school environment. Document analysis was conducted to complement and verify findings obtained from interviews and observations. Documents analyzed included school vision and mission statements, strategic plans, principal work programs, PLC activity reports, teacher reflection records, academic supervision reports, and policies related to teacher professional development. These documents provided institutional and historical perspectives on leadership strategies and organizational practices. All qualitative data were systematically organized and analyzed using NVivo 14 software to facilitate coding, categorization, thematic development, and audit trail management. The use of qualitative analysis software enhanced transparency, consistency, and traceability throughout the analytical process.

Data Analysis

Data analysis was conducted continuously throughout the research process using the interactive model developed by Miles and Huberman, consisting of data collection, data reduction, data display, and conclusion drawing/verification. Data reduction involved selecting, simplifying, and organizing relevant information obtained from the field. The reduced data were then presented in narrative form to facilitate interpretation and understanding of participants' experiences. In addition to the interactive analysis model, this study employed thematic analysis supported by NVivo 14. The analytical process involved several stages, including epoche or bracketing, horizontalization, clustering of meanings, textural description, structural description, and textural-structural synthesis. Through these stages, meaningful statements from participants were identified, categorized into themes, and synthesized to capture the essence of principals' leadership experiences in developing PLC culture. The integration of qualitative thematic analysis with NVivo 14 software enabled systematic coding, theme development, and transparent

documentation of analytical decisions. This integrated approach, known as Computer-Assisted Phenomenological Analysis (CAPA), strengthened methodological rigor, analytical consistency, and auditability of the research findings.

Data Sources and Participants

The study utilized both primary and secondary data sources. Primary data were obtained directly from participants through interviews and observations. Participants were selected using purposive sampling based on their relevance and involvement in Professional Learning Community activities. Primary participants consisted of principals and teachers from schools that had implemented PLCs, while secondary participants included principals from schools that had not implemented PLCs. In total, sixteen participants were involved in the study. The participants represented various schools across regencies and municipalities in Banten Province, enabling the study to capture diverse experiences and contextual variations. Secondary data were obtained through library research and documentation studies. Sources included academic literature, policy documents, school strategic plans, supervision reports, meeting minutes, teacher performance evaluations, and other institutional documents relevant to teacher professional development and PLC implementation.

Trustworthiness of the Research

To ensure the trustworthiness of the findings, the study applied the criteria proposed by Lincoln and Guba, namely credibility, transferability, dependability, and confirmability. Credibility was established through triangulation of data sources and methods, combining interviews, observations, and document analysis. Member checking was also conducted by sharing interview summaries and preliminary interpretations with participants for confirmation and clarification. Transferability was ensured through thick description of research contexts, participant characteristics, and school environments, enabling readers to assess the relevance of findings in similar educational settings.

Dependability was strengthened through systematic documentation of research procedures and analytical processes using NVivo 14. Coding histories, memos, and thematic reports were preserved as part of the audit trail to ensure analytical consistency and transparency. Confirmability was maintained through the application of bracketing to minimize researcher bias and ensure that findings were grounded in empirical data. The digital audit trail generated through NVivo 14 also enabled external reviewers to trace the relationship between raw data, analytical processes, and final interpretations. Overall, the integration of qualitative methodology, multiple case study design, and computer-assisted qualitative analysis provided a rigorous and comprehensive framework for understanding principal leadership strategies in developing Professional Learning Community culture in public elementary schools across Banten Province.

RESULTS AND DISCUSSION

Principal Leadership Strategies in Building a Professional Learning Community Culture in Public Elementary Schools in Banten Province

This study reveals that principals of Public Elementary Schools (Sekolah Dasar Negeri/SDN) in Banten Province employed a multifaceted array of leadership strategies to establish and sustain a Professional Learning Community (PLC) culture. These strategies

manifested through collaborative governance, vision-aligned programming, participatory decision-making, teacher empowerment, reflective communication, and structured professional development initiatives. Across the six schools that had successfully cultivated PLC culture, principals consistently demonstrated both transformational and collaborative leadership orientations.

Data gathered through interviews, classroom observations, and document analysis indicate that effective principals proactively embedded PLC principles within their schools' vision and mission statements. Rather than treating PLC as a bureaucratic mandate, these leaders framed collaborative professional learning as an ongoing institutional culture one that normalized peer dialogue, lesson study activities, reflective debriefs, and collective problem-solving in instructional practice. Teachers across these schools consistently noted that their principals reinforced this culture through deliberate, recurring engagement.

Notably, principals in high-PLC schools did not merely administer these programs from a distance. Their direct participation in PLC activities attending collaborative sessions, engaging in instructional discussions, and modeling reflective practice strengthened teacher motivation and cultivated an environment of trust and collegiality. Open communication channels and democratic processes in instructional decision-making further reinforced teachers' sense of professional ownership.

Table 1. Principal Leadership Strategies in Building PLC Culture

Leadership Aspect	Findings
Vision and Mission Alignment	PLC integrated into school strategic goals and educational vision
Collaborative Leadership	Principals facilitated teamwork and collegial learning
Communication Practices	Open dialogue, reflective discussion, and teacher feedback mechanisms
Teacher Empowerment	Delegation of responsibilities and encouragement of innovation
Motivation Strategies	Recognition, mentoring, and emotional support for teachers
Decision-Making	Participatory and consensus-based decision processes
Evaluation and Feedback	Continuous monitoring and reflective evaluation of PLC activities

These findings underscore that effective principals functioned not merely as school managers, but as instructional leaders and agents of organizational transformation. Their role as facilitators of collective learning aligns with foundational PLC theory (DuFour & Eaker, 1998; Hord, 1997), which identifies shared leadership, collaborative culture, and collective responsibility for student learning as the cornerstones of sustainable professional communities. Principals who cultivated collaborative learning environments succeeded in reducing professional isolation among teachers and strengthening collective efficacy — a finding consistent with Bandura's (1997) self-efficacy theory applied at the organizational level. These results confirm that the trajectory of PLC implementation is substantially shaped by the leadership orientation and interpersonal competencies of the school principal.

Driving Factors Supporting Principal Leadership Strategies in Building PLC Culture

The study identified a constellation of driving factors that facilitated principals' efforts to build and sustain PLC culture. These factors operate across internal and external dimensions, encompassing principal commitment, teacher motivation, institutional support, educational policy frameworks, collegial climate, and technological infrastructure. Among all identified enablers, the most consistently dominant was the principals' intrinsic commitment to improving teacher professionalism and student learning outcomes. Principals who perceived PLC not as a mandated program but as a professional imperative demonstrated greater persistence in sustaining collaborative structures. This commitment proved contagious: in schools where principals modeled reflective practice, teachers were more receptive to innovation and peer feedback.

Institutional support from school supervisors (pengawas) and local education offices (dinas pendidikan) also emerged as a critical external factor. Schools that received consistent mentoring and capacity-building assistance reported more robust and sustained PLC activities compared to those operating with minimal external guidance. The availability of digital communication platforms further enhanced collaboration, enabling teachers to share instructional resources, coordinate lesson planning, and maintain reflective dialogue beyond formal meeting hours.

Table 2. Driving Factors of PLC Implementation

Driving Factor	Description
Principal Commitment	Strong leadership dedication toward teacher professional development
Teacher Motivation	Teachers' willingness to collaborate and continuously improve instructional competence
Institutional Support	Consistent guidance and capacity-building from supervisors and education authorities
Collaborative School Climate	Positive collegial relationships and mutual trust among teaching staff
Educational Policies	Government and institutional encouragement for professional learning initiatives
Technology Utilization	Digital platforms supporting communication, collaboration, and resource sharing

These findings affirm that effective PLC implementation cannot be reduced to any single variable. Leadership, while central, is neither sufficient nor self-sustaining without complementary conditions including teacher readiness, institutional facilitation, and supportive policy environments. This multidimensional dependency aligns with organizational learning theory (Senge, 1990), which posits that sustainable learning cultures emerge from the interplay of shared vision, collective commitment, and systemic support structures.

Inhibiting Factors Affecting Principal Leadership Strategies in Building PLC Culture

Despite the enabling conditions described above, the study also identified significant inhibiting factors that constrained principals' capacity to implement PLC culture effectively. These obstacles operated at both structural and cultural levels, encompassing administrative overload, temporal scarcity, resistance to change, infrastructural deficits, and heterogeneous professional competencies among teachers. The most pervasive barrier across research sites was the excessive administrative burden borne by both teachers and principals. Heavy documentation requirements, bureaucratic reporting demands, and non-instructional responsibilities consumed substantial time and energy that could otherwise be

directed toward collaborative professional learning. Time constraints were further exacerbated in schools with dense academic calendars that left little room for scheduled reflective meetings or peer observation cycles.

Cultural resistance posed an equally significant challenge. In several schools, particularly among senior teachers accustomed to individualistic working norms, PLC activities were perceived as supplementary obligations rather than professional development opportunities. This attitudinal barrier rooted in habituated autonomy and skepticism toward institutional change required deliberate and sustained effort on the part of principals to address.

Table 3. Inhibiting Factors in PLC Implementation

Inhibiting Factor	Findings
Administrative Workload	Excessive reporting requirements and bureaucratic compliance tasks
Time Constraints	Insufficient time allocated for collaborative meetings and reflective sessions
Resistance to Change	A subset of teachers reluctant to embrace collaborative professional norms
Limited Facilities	Inadequate physical infrastructure and instructional resource availability
Unequal Competencies	Variation in teachers' professional capability and digital literacy levels
Policy Inconsistency	Shifting educational priorities and regulatory changes disrupting program continuity

These findings illuminate the necessity of simultaneous structural and cultural transformation for PLC sustainability. Organizational barriers particularly administrative saturation frequently undermined collaborative efforts despite principals' genuine commitment. Educational policymakers must therefore address the structural conditions that generate these barriers, particularly by reducing non-instructional burdens and creating protected time for professional learning as an institutional norm.

Teachers' Responses Toward Principal Leadership Strategies in Building PLC Culture

Teachers' responses to principals' PLC leadership strategies were predominantly positive, though nuanced by contextual and personal variables. The majority of teacher respondents viewed collaborative leadership as professionally enriching, emotionally supportive, and motivationally beneficial. Principals who demonstrated approachability, participative engagement, and authentic investment in teacher growth received markedly stronger endorsements. Teachers consistently reported that PLC activities enhanced collegial relationships and diminished the professional isolation that characterizes many school environments. Structured collaborative discussions provided meaningful opportunities to exchange pedagogical strategies, troubleshoot classroom challenges collectively, and refine instructional approaches through peer feedback. Inclusion in decision-making processes related to instructional improvement further strengthened teachers' sense of professional agency and institutional belonging.

However, the data also surfaced important concerns. A proportion of teachers expressed apprehension regarding the long-term sustainability of PLC activities, citing workload pressures and inconsistencies in program implementation. In schools where PLC

meetings were perceived as formulaic or inadequately facilitated, some teachers experienced participation as a compliance exercise rather than a genuine professional development opportunity.

Table 4. Teachers' Responses Toward PLC Leadership Strategies

Teacher Response	Findings
Positive Perception	Teachers widely regarded PLC activities as beneficial for professional growth
Increased Collaboration	Enhanced teamwork, peer learning, and cross-classroom knowledge exchange
Enhanced Motivation	Greater intrinsic motivation to improve instructional practice
Participatory Experience	Teachers valued inclusion in collaborative and consultative decision-making
Concerns on Sustainability	Reservations regarding workload balance and program continuity

These findings underscore teacher acceptance as a pivotal determinant of PLC sustainability. When collaborative leadership practices are perceived as authentic rather than performative, they strengthen teachers' sense of ownership and professional identity — a dynamic consistent with social constructivist perspectives on educational change (Vygotsky, 1978; Fullan, 2007), which emphasize that meaningful transformation emerges through interaction, shared meaning-making, and collective engagement rather than top-down directives.

The Impact of PLC Culture on Teacher Professionalism and Learning Quality

The implementation of PLC culture yielded measurable and meaningful impacts on teacher professionalism and instructional quality. Across schools with active PLC engagement, teachers demonstrated increased reflective capacity, expanded collaborative competence, greater instructional innovation, and enhanced professional confidence. Teachers actively engaged in PLC activities reported concrete improvements in multiple dimensions of pedagogical practice, including lesson planning rigor, classroom management strategies, and formative assessment design. The structured exchange of teaching experiences facilitated the adoption of more student-centered instructional approaches and evidence-informed pedagogical strategies. Observational data further corroborated these self-reports, revealing increased use of collaborative learning structures and visible integration of reflective teaching practices in observed classrooms. Beyond individual teacher growth, PLC culture demonstrably strengthened the broader school learning climate. Principals observed increased openness to professional feedback, greater willingness to engage in peer observation, and more productive instructional dialogue among staff members indicators of a maturing professional community.

Table 5. Impacts of PLC Culture on Teacher Professionalism and Learning Quality

Impact Area	Findings
Teacher Professionalism	Enhanced instructional competence, reflective capacity, and pedagogical innovation
Instructional Quality	Improved teaching strategies, classroom practices, and student engagement approaches
Collaborative	Stronger collegial relationships, trust, and professional

Impact Area	Findings
Culture	interdependence
Professional Confidence	Increased teacher self-efficacy and willingness to take instructional risks
School Climate	More communicative, supportive, and professionally stimulating school environment

These findings provide compelling evidence that PLC culture constitutes a meaningful lever for school improvement. The collaborative and reflective nature of well-implemented PLCs fosters continuous professional learning, which progressively enhances instructional effectiveness. This aligns with Hargreaves and Fullan's (2012) concept of professional capital the argument that sustainable educational improvement is built through the accumulated social and decisional capital of teachers working collectively, rather than through isolated individual performance.

Factors Causing Principals to Not Implement PLC Culture

An equally instructive dimension of this study concerns the schools in which PLC culture had not been implemented. Findings from the four non-PLC schools reveal a convergent set of barriers: insufficient leadership understanding, limited managerial competence, weak institutional support, administrative overload, and inadequate awareness of collaborative professional learning frameworks. A recurring pattern in these schools was a fundamentally different conceptual framing of PLC. Principals who had not implemented PLC culture tended to perceive it as a formal government directive rather than a strategic and evidence-based approach to school improvement. This reductive understanding of PLC as compliance rather than culture resulted in the absence of any coherent integration within school programming. The lack of targeted training and capacity-building opportunities further constrained these principals' ability to develop the collaborative leadership dispositions PLC culture requires. Financial and infrastructural constraints compounded these leadership gaps. Schools with limited operational budgets consistently prioritized administrative and logistical concerns over professional learning investments. The simultaneous absence of robust external supervision and mentoring from educational authorities removed a key accountability and support mechanism that might otherwise have catalyzed PLC adoption.

Table 6. Factors Causing the Absence of PLC Culture

Factor	Findings
Limited Leadership Understanding	Principals lacked comprehensive and accurate knowledge about PLC purpose and practice
Weak Managerial Capacity	Insufficient competence in collaborative and distributed leadership management
Administrative Priorities	Institutional focus skewed toward bureaucratic compliance rather than professional learning
Limited Institutional Support	Minimal external guidance, mentoring, and supervision from educational authorities
Resource Constraints	Financial and infrastructural limitations restricting program development
Weak Collaborative Culture	Insufficient teacher readiness and disposition for collective professional learning

These findings indicate that the absence of PLC culture reflects not merely individual leadership deficits but systemic conditions that fail to support the development of collaborative professional norms. Schools embedded in organizational cultures that privilege administrative compliance over instructional improvement face compounding challenges in initiating PLC practices. Taken together, the findings of this study establish principal leadership as the central determinant in the development of PLC culture in Public Elementary Schools in Banten Province. Principals who employed transformational and collaborative leadership strategies successfully cultivated environments characterized by shared professional learning, reflective practice, and collective responsibility for instructional quality. These outcomes, in turn, translated into meaningful improvements in teacher professionalism and learning effectiveness. Nevertheless, the study makes equally clear that no principal can sustain PLC culture in isolation. Institutional support, policy-level commitment to reducing bureaucratic burden, and systemic investment in collaborative professional learning are essential preconditions for PLC sustainability and scalability. Future educational reform efforts in Banten Province and in similar regional contexts across Indonesia must therefore address both the leadership and structural dimensions of PLC implementation if the promise of collaborative professional learning is to be fully realized.

Discussion

Principal Leadership and the Institutionalization of Professional Learning Community Culture

The findings of this study strongly confirm that principal leadership serves as the most decisive organizational factor in the development, sustainability, and institutionalization of Professional Learning Community (PLC) culture in public elementary schools in Banten Province (Handayani et al., 2025). Across all schools categorized as high-PLC schools, the principal consistently functioned not only as an administrator or policy executor but as the primary architect of collaborative professional culture. This finding reinforces the argument advanced by Kenneth Leithwood and colleagues that instructional transformation within schools is highly dependent upon leadership practices capable of shaping organizational values, norms, and collective behavior. The present study demonstrates that effective principals operationalized leadership through transformational and collaborative approaches rather than through bureaucratic authority alone. Principals who successfully implemented PLC culture consistently articulated a shared educational vision, modeled reflective professional behavior, and facilitated collective teacher learning. This finding aligns closely with the work of Peter Senge, who conceptualized learning organizations as institutions characterized by shared vision, systems thinking, and collective inquiry. In the schools examined, PLC was not treated as a technical program or short-term initiative, but rather as a long-term cultural orientation embedded within the institutional identity of the school itself (Vijayadevar et al., 2019).

A particularly important analytical finding concerns the way principals redefined their positional authority. In traditional school structures, principals frequently occupy supervisory roles characterized by hierarchical monitoring and administrative evaluation. However, in schools where PLC culture flourished, principals intentionally repositioned themselves as co-learners and facilitators within the professional community (Lebeau et al., 2024). This leadership orientation significantly transformed teacher-principal relationships. Teachers no longer perceived leadership as distant or evaluative; instead, principals became active participants in collaborative learning processes. Such relational transformation created higher levels of professional trust, openness, and collegial interaction among teachers. This finding is consistent with previous international studies. Research conducted by Andy Hargreaves and Shirley (2012) demonstrated that collaborative professionalism

emerges most effectively in educational institutions where leadership prioritizes trust-building, shared learning, and professional dialogue over managerial compliance. Similarly, Hallinger (2021) found that principals in Southeast Asian schools who emphasized instructional leadership and collaborative culture were more successful in sustaining teacher professional development compared with principals who focused predominantly on administrative control.

The findings of this study also extend previous research by demonstrating that principal leadership in Indonesian public elementary schools possesses unique structural significance due to the centralized educational culture within Indonesian bureaucracy. Unlike contexts in highly decentralized educational systems, Indonesian principals possess substantial symbolic and operational influence over school culture, resource allocation, and organizational priorities. Consequently, the personal orientation of the principal toward collaboration or bureaucracy directly shapes the professional culture experienced by teachers. Another important analytical insight emerging from this study concerns the integration of PLC values into school vision and mission structures (Rahmatullah et al., 2025). In successful PLC schools, collaborative professional learning was embedded explicitly within institutional discourse, strategic planning, and organizational expectations. Teachers consistently described professional growth using collective language such as “learning together,” “shared improvement,” and “collective reflection.” By contrast, teachers in non-PLC schools described professional development primarily as an individual responsibility associated with certification, training attendance, or personal competency enhancement.

This linguistic distinction reflects deeper epistemological differences regarding how schools conceptualize knowledge and professional growth. High-PLC schools embraced a social constructivist orientation in which knowledge was collaboratively constructed through interaction and reflective practice. This finding resonates strongly with the theoretical perspective of Lev Vygotsky, whose social constructivist theory emphasizes learning as a socially mediated process rather than an isolated individual activity. In contrast, non-PLC schools reflected a more traditional individualistic paradigm in which professional competence was understood as individually acquired and privately maintained. The present findings therefore contribute to previous scholarship by demonstrating that PLC success depends not merely on the implementation of collaborative activities but on deeper cultural transformation involving leadership identity, organizational values, and collective professional meaning-making (Yakob et al., 2025). PLC culture cannot be reduced to meeting schedules, documentation systems, or formal collaboration structures. Rather, it represents an organizational shift in how schools conceptualize learning, authority, professionalism, and institutional responsibility.

Structural Constraints, Teacher Resistance, and the Complexity of Educational Change

Although the findings highlight the positive influence of collaborative leadership on PLC development, the study also reveals substantial structural and cultural barriers that complicate the implementation and sustainability of PLC culture in public elementary schools. One of the most significant findings concerns the contradiction between increasing administrative accountability demands and the institutional requirements necessary for meaningful professional collaboration. Teachers and principals across both PLC and non-PLC schools consistently reported that excessive administrative responsibilities consumed time, energy, and cognitive resources that could otherwise support reflective learning and collaborative inquiry. Administrative reporting, bureaucratic documentation, and compliance-oriented tasks frequently displaced opportunities for peer observation, reflective dialogue, and instructional discussion. This finding aligns with the

critique developed by Andy Hargreaves (1994), who warned that collaborative reforms implemented within highly bureaucratic systems often deteriorate into what he termed “contrived collegiality.” In such contexts, collaboration becomes formalistic, obligatory, and administratively driven rather than intellectually meaningful and professionally empowering.

The present study confirms this concern within the Indonesian educational context. In several schools, teachers perceived PLC meetings as additional institutional burdens rather than as spaces for authentic professional reflection. This phenomenon was particularly evident when collaborative sessions focused heavily on administrative reporting rather than pedagogical inquiry. Consequently, some PLC activities became procedural rituals lacking substantive instructional impact. This finding has major implications for educational policy. The problem is not merely technical inefficiency but structural contradiction (Listiyorini et al., 2025). Educational systems simultaneously demand high levels of administrative accountability and high-quality collaborative professional learning without reducing competing institutional pressures. These two agendas compete directly for teacher attention and professional energy. Without structural protection of collaborative learning time, PLC sustainability becomes highly vulnerable regardless of principal commitment or teacher motivation (Lismeni et al., 2025).

Another major challenge identified in this study concerns teacher resistance to collaborative professional culture. Importantly, the study demonstrates that such resistance should not be interpreted simplistically as unwillingness to improve professionally. Rather, resistance emerged from deeper sociological and psychological dynamics related to professional identity, autonomy, and institutional trust. Many senior teachers had spent decades operating within highly individualized teaching cultures in which classroom practice remained private and professionally autonomous (Nurlina et al., 2025). For these teachers, PLC expectations involving peer observation, collaborative critique, and instructional transparency generated discomfort and vulnerability. This finding reflects the enduring relevance of Dan Lortie’s concept of the “egg-crate structure” of schooling, where teachers function in relative professional isolation separated by classroom walls and cultural norms of autonomy.

The present findings extend Lortie’s framework by showing how collaborative leadership practices can gradually disrupt this isolation. Effective principals addressed resistance not through coercive mandates but through relationship-building, emotional support, and the creation of psychologically safe environments. Principals intentionally de-linked collaborative activities from formal evaluation processes, thereby reducing teacher anxiety associated with professional exposure. Teachers became more willing to participate when collaboration was framed as mutual learning rather than performance assessment. This finding strongly supports the educational change theory proposed by Michael Fullan, who argues that sustainable school reform depends fundamentally upon how teachers interpret and emotionally experience change processes. Resistance, according to Fullan, is not irrational opposition but meaningful feedback indicating unresolved concerns, fears, or professional tensions. The current study confirms this perspective within Indonesian public elementary schools, demonstrating that relational trust constitutes a necessary precondition for collaborative culture transformation.

Technology also emerged as an important supporting variable within PLC implementation. Digital platforms such as WhatsApp groups, Google Classroom, and online collaborative forums expanded opportunities for communication, resource sharing, and asynchronous professional interaction. Particularly in post-pandemic educational contexts, digital tools enabled teachers to sustain collaborative engagement despite scheduling limitations and geographical constraints. However, the findings caution against technological determinism. Technology itself did not generate collaboration. In schools

lacking trust, collegiality, and leadership support, digital platforms became channels for administrative communication rather than spaces for reflective professional dialogue. This finding supports prior research by Trust and Horrocks (2019), which concluded that technology amplifies existing professional culture rather than independently creating collaborative learning communities. Overall, these findings demonstrate that PLC implementation is not merely a technical innovation but a deeply cultural and structural transformation process requiring changes in leadership practices, institutional priorities, professional identities, and organizational trust systems simultaneously.

Systemic Limitations and the Unequal Development of PLC Culture

One of the most analytically significant contributions of this study lies in its comparative analysis between PLC-implementing and non-PLC schools. The findings reveal that the absence of PLC culture cannot be explained solely by individual leadership weakness or teacher unwillingness. Rather, the findings indicate the presence of broader systemic deficits involving leadership preparation, institutional support, educational policy, and organizational capacity. The most striking finding among non-PLC schools was the absence of conceptual understanding regarding collaborative professional learning. Principals in these schools frequently interpreted professional development through individualistic and bureaucratic frameworks. Teacher development was associated primarily with certification, formal training attendance, or compliance with government regulations rather than with collaborative inquiry and reflective organizational learning.

This conceptual limitation reflects broader weaknesses within principal preparation and professional development systems. Existing leadership training programs in Indonesia continue to emphasize managerial administration, bureaucratic procedures, and policy implementation more heavily than instructional leadership, adult learning facilitation, and collaborative culture development. Consequently, many principals possess strong administrative competencies but limited theoretical and practical understanding of PLC implementation as a mechanism for school improvement. This finding aligns with international comparative research. Studies conducted by Harris and Jones (2020) found that educational systems emphasizing managerial accountability over instructional leadership often produce principals who are technically efficient but culturally underprepared to lead collaborative professional transformation. Similarly, OECD educational reports repeatedly emphasize that successful PLC implementation requires leadership development systems specifically oriented toward organizational learning, teacher collaboration, and reflective instructional improvement.

The findings also demonstrate that institutional support significantly influences PLC sustainability. Schools receiving active supervision, mentoring, and professional facilitation from district education authorities displayed stronger collaborative cultures than schools operating with minimal external guidance. This suggests that PLC culture cannot depend solely upon individual school initiative; it requires broader ecosystem support involving policy consistency, professional networks, and organizational infrastructure. Resource inequality also emerged as an important factor affecting PLC implementation. Schools with limited facilities, unstable internet access, and insufficient operational funding faced greater difficulties sustaining collaborative learning activities. While leadership remained critically important, even highly committed principals encountered substantial obstacles when operating within structurally constrained environments. This finding supports the argument that educational improvement must be understood as both organizational and systemic rather than purely individual.

Furthermore, the study reveals important implications for educational governance in Indonesia. Current accountability structures prioritize measurable administrative compliance more strongly than collaborative professional culture development. Schools are

frequently evaluated through documentation completeness, reporting accuracy, and procedural implementation rather than through the quality of professional learning culture or instructional collaboration. As a result, principals and teachers experience pressure to prioritize bureaucratic visibility over reflective professional inquiry. The present findings therefore suggest that sustainable PLC development requires systemic educational reform beyond school-level intervention alone. Educational authorities must redesign accountability systems to protect collaborative learning time, reduce excessive bureaucratic burdens, strengthen instructional leadership preparation, and institutionalize professional learning support structures across schools. In theoretical terms, the study contributes to the growing body of research emphasizing that PLC culture is fundamentally an organizational and systemic phenomenon rather than merely an individual leadership initiative. Effective principals remain critically important, but leadership effectiveness itself is shaped and constrained by broader institutional, cultural, and policy environments. Sustainable educational transformation therefore requires alignment between school leadership, teacher professional culture, institutional support systems, and national educational policy frameworks simultaneously.

Theoretical Implications

This study makes several contributions to the theoretical understanding of PLC culture within non-Western, resource-constrained educational contexts. The majority of foundational PLC scholarship originates in North American and Western European settings characterized by relatively stable policy environments, higher resource availability, and different historical relationships between teachers and institutional authority. The present study both confirms and complicates this existing theoretical framework. The confirmation is substantial: the core mechanisms through which PLC culture generates improved professional practice—reduced isolation, shared inquiry, collective efficacy, reflective dialogue—operate in Indonesian elementary school settings in ways that are broadly consistent with the international literature. Principal leadership as a cultural anchor, collaborative vision as a sustainability mechanism, and teacher ownership as a participation driver all function as theory predicts.

The complication is equally important. The intensity of the administrative burden observed in this study and its systematic undermining of collaborative professional learning suggests that theoretical frameworks developed in higher-resource contexts may underestimate the structural constraints that shape PLC implementation in developing nation settings. Future theoretical work on PLC in Global South contexts must engage more directly with the relationship between bureaucratic governance structures, teacher workload regimes, and the organizational conditions necessary for genuine collaborative learning culture. This study also contributes to transformational leadership theory by providing detailed empirical evidence of the specific behavioral mechanisms through which principal leadership translates into organizational cultural change—not through vision statements alone, but through consistent modeling of reflective practice, protection of collaborative time, and the gradual cultivation of psychological safety. These findings suggest that transformational leadership theory, in the educational domain, needs to be more precisely specified at the behavioral level to be actionable for principal preparation and professional development.

Practical Implications for School Principals

For practicing school principals, this study offers several concrete and evidence-grounded directional insights. First, the development of PLC culture is fundamentally a long-term cultural project, not a programmatic initiative. Principals who approached PLC as a school program to be implemented observed different and generally weaker outcomes

than those who approached it as a professional philosophy to be gradually embodied in school culture. This distinction requires principals to develop patience, relational persistence, and tolerance for the slow pace of genuine cultural change. Second, principal participation in PLC activities not merely facilitation of them is a non-negotiable element of effective PLC leadership. When principals removed themselves from collaborative sessions after establishing them, the symbolic message however unintended was that PLC activities were for teachers, not for the full professional community including its formal leaders. Principals who remained present, contributed their own instructional observations and uncertainties, and visibly engaged in the same reflective practices they expected of teachers sent a fundamentally different message about the shared nature of professional learning. Third, the management of teacher resistance requires a differentiated approach. Principals who imposed uniform participation requirements on all staff, regardless of individual readiness or prior experience with collaborative learning, typically encountered more friction and less genuine engagement than those who began with willing early adopters, created visible positive experiences, and allowed the social proof of peers' positive experiences to gradually expand participation. This graduated approach is not permissiveness; it is strategic sequencing that respects the sociology of professional change.

Practical Implications for Educational Policymakers and Supervisors

At the policy level, this study's findings call for a fundamental reconsideration of how professional accountability and professional learning are structurally related in Indonesian elementary education. The current policy environment, which simultaneously increases administrative documentation requirements and expects PLC implementation, creates a structural contradiction that individual principals and teachers cannot resolve at the school level. Policy reform must address this contradiction directly by reducing non-instructional administrative burdens on teachers and creating protected, structured time for collaborative professional learning within the school calendar. School supervisors (*pengawas*) carry a particular and underutilized strategic role in this regard. The data from high-PLC schools confirm that consistent, instructionally-focused mentoring from supervisors significantly enhances the quality and sustainability of PLC activities. However, this requires supervisors who are themselves equipped with the conceptual frameworks and facilitation skills necessary to support collaborative professional learning a capacity gap that existing supervisor preparation programs may not adequately address. Furthermore, educational authorities should consider developing differentiated support mechanisms for principals based on assessed readiness for PLC leadership. Schools in the early stages of PLC development require a different form of institutional support more intensive mentoring, more structured frameworks, more explicit capacity-building than schools with established collaborative cultures. A uniform, one-size-fits-all approach to PLC implementation support is likely to be inefficient and inequitable in its effects.

Implications for Teacher Professional Development

For teacher professional development systems, this study suggests a reorientation of investment from individual training events toward sustained, school-embedded collaborative learning structures. The evidence from this study reinforces a well-established finding in the educational effectiveness literature: one-time professional development workshops, however high in quality, have limited and short-lived impact on instructional practice. What changes teaching is not a workshop but a changed professional culture one in which ongoing reflection, peer feedback, and collective problem-solving are the norm rather than the exception. This reorientation has implications for how teacher professional development is funded, structured, and evaluated. Funding mechanisms that reward individual certification and training attendance should be complemented or in some cases

replaced by mechanisms that reward the development of school-level collaborative learning infrastructure. Evaluation frameworks that assess teacher competence individually should be accompanied by frameworks that assess the quality of school-level professional learning culture, including the richness of collaborative dialogue, the frequency and quality of peer observation cycles, and the degree to which instructional decisions are informed by collectively gathered and analyzed evidence of student learning.

CONCLUSION

This study set out to investigate the leadership strategies employed by principals in building PLC culture in Public Elementary Schools in Banten Province, and to examine the factors both enabling and constraining that shape the trajectory of PLC implementation in these settings. The findings, drawn from a qualitative inquiry across ten schools representing contrasting levels of PLC development, yield a rich and multidimensional understanding of how collaborative professional learning culture is formed, sustained, and sometimes frustrated in Indonesian elementary education contexts. The central conclusion of this study is unambiguous: principal leadership is the decisive determinant of PLC culture formation. However, this conclusion must be understood with important qualifications. Principal leadership matters not primarily through formal authority or administrative mandate it matters through the quality of relational trust, the consistency of behavioral modeling, the clarity and depth of professional vision, and the structural choices principals make about how institutional time, attention, and resources are allocated. PLC culture is, in essence, a principal's most consequential long-term instructional investment.

The study's second major conclusion concerns the multidimensional nature of the conditions necessary for PLC sustainability. No principal, however skilled and committed, can sustain collaborative professional learning culture in structural isolation. Institutional support from supervisors and educational authorities, policy environments that protect professional learning time, and teacher readiness for collaborative engagement are each necessary though individually insufficient conditions for PLC culture to become embedded and self-sustaining. PLC implementation is not a leadership task; it is a system-level commitment. Third, this study concludes that the barriers to PLC implementation in non-adopting schools are predominantly systemic rather than individual. Administrative overload, conceptual deficits in principal understanding of PLC frameworks, insufficient institutional mentoring, and weak collaborative norms are conditions that the educational system produces and that the system must therefore address. Attributing non-implementation to individual principal inadequacy without acknowledging the systemic conditions that constrain effective leadership would be analytically insufficient and practically counterproductive.

Fourth, the study finds that where PLC culture has taken root, its impacts on teacher professionalism enhanced reflective capacity, reduced isolation, strengthened collective efficacy, and improved instructional practice are substantive and educationally meaningful. These impacts confirm that PLC is not merely a professional development program; it is a mechanism for transforming the organizational conditions of teaching in ways that make continuous improvement structurally possible rather than individually dependent. Finally, this study acknowledges its own methodological scope and the limitations it entails. Conducted across ten schools in a single province through qualitative methods, its findings are rich in analytical depth but circumscribed in generalizability. Future research should extend this inquiry through larger-scale comparative studies that

encompass greater regional, socioeconomic, and institutional diversity; through longitudinal designs that capture the developmental trajectory of PLC culture over time; and through quantitative approaches that can establish more precise relationships between specific leadership behaviors and measured outcomes in teacher professionalism and student learning. The development of PLC culture in Indonesian elementary schools is not a peripheral educational priority it is a strategic necessity for the improvement of instructional quality at scale. Indonesia's educational transformation cannot be driven by curriculum reform or infrastructure investment alone; it requires a parallel transformation in the professional culture of its schools. That transformation begins, this study consistently confirms, with the quality and orientation of principal leadership and it requires, as its enabling condition, an educational system prepared to genuinely support the collaborative professional learning it asks its schools to practice.

REFERENCES

- Ardiani, T., Sumarno, S., & Rasiman, R. (2025). TRANSFORMATIONAL LEADERSHIP STYLE: HOW PRINCIPALS CAN HELP TO IMPROVE THE QUALITY OF LEARNING IN ELEMENTARY SCHOOL. *Prima Magistra: Jurnal Ilmiah Kependidikan*. <https://doi.org/10.37478/jpm.v6i2.5141>
- Aziz, C. N., Rahyasih, Y., Abubakar, A., & Nurdin, N. (2025). Transformational leadership and the development of professional learning communities in elementary schools. *Journal of Educational Management and Instruction (JEMIN)*. <https://doi.org/10.22515/jemin.v5i1.9930>
- Buttram, J., & Farley-Ripple, E. (2016). The Role of Principals in Professional Learning Communities. *Leadership and Policy in Schools*, 15, 192–220. <https://doi.org/10.1080/15700763.2015.1039136>
- DeMatthews, D. (2014). Principal and Teacher Collaboration: An Exploration of Distributed Leadership in Professional Learning Communities. *International Journal of Educational Leadership and Management*. <https://doi.org/10.4471/ijelm.2014.16>
- Erlisa, D. (2024). Kepemimpinan Transformasional Kepala Sekolah dalam Mendorong Inovasi Pembelajaran di Sekolah Dasar. *Jurnal Sadewa: Publikasi Ilmu Pendidikan, Pembelajaran Dan Ilmu Sosial*. <https://doi.org/10.61132/sadewa.v3i1.1439>
- Handayani, W., Hidayat, S., & Elan, E. (2025). Transformational Leadership of School Principals as a Catalyst for Digital Learning Implementation in Primary Schools. *Journal of Innovation and Research in Primary Education*. <https://doi.org/10.56916/jirpe.v4i3.1826>
- Hasbi, H. (2025). Peran Kepemimpinan Kepala Sekolah dalam Mendorong Profesionalisme Guru Sekolah Dasar. *Journal of Character and Elementary Education*. <https://doi.org/10.35508/jocce.v4i3.22928>
- Hua, S., Mansor, A., Jamaludin, K. A. Bin, & Chen, X. (2024). The Influence of principals' Instructional Leadership on teachers' Professional Learning Community: the mediating role of school climate. *Salud, Ciencia y Tecnología - Serie de Conferencias*. <https://doi.org/10.56294/sctconf2024.1373>

- Lagarense, F., Purwanto, N. A., & Hemamalini, H. (2025). TRANSFORMATIONAL LEADERSHIP OF THE PRINCIPAL IN THE IMPLEMENTATION OF THE PROFESSIONAL LEARNING COMMUNITY (PLC). *JURNAL EDUSCIENCE*. <https://doi.org/10.36987/jes.v12i3.6951>
- Lebeau, E., Lessard, A., Granger, N., & Beaudoin, M. (2024). The influence of principal leadership on the activity of a learning organization in a Quebec elementary school context. *Revue Internationale Du CRIRES : Innover Dans La Tradition de Vygotsky*. <https://doi.org/10.51657/mk5mhh67>
- Lismeni, C. L., Usman, N., Rasyid, S., & Afaidi, M. I. (2025). Situational Leadership of School Principals: Strategies for Strengthening the Quality of Learning in Elementary Schools. *IJORER: International Journal of Recent Educational Research*. <https://doi.org/10.46245/ijorer.v6i6.1184>
- Listiyorini, L., Ginting, R. B., & Muhtarom, M. (2025). The Influence of Academic Supervision, Learning Communities, and Collaborative Leadership of Principals on the Quality of Learning in Public Elementary Schools. *Scaffolding: Jurnal Pendidikan Islam Dan Multikulturalisme*. <https://doi.org/10.37680/scaffolding.v7i2.7878>
- Nurlina, N., Meirawan, D., Triatna, C., & Suyadi, S. (2025). Collaborative Leadership in Elementary Education: A Systematic Review of Effective Principal Practices. *AL-ISHLAH: Jurnal Pendidikan*. <https://doi.org/10.35445/alishlah.v17i4.7661>
- Qu, Y., Liu, S., Shao, Y., & Li, G. (2025). Moral Leadership and Professional Learning Communities: The Mediating Role of Teachers' Trust in Principals and the Moderating Role of Principals' Controlling Behavior. *Psychology in the Schools*, 62. <https://doi.org/10.1002/pits.23398>
- Rahmatullah, R., Usman, N., Bahrin, B., & Ar, M. (2025). Transformational Leadership of School Principals in Improving Teachers' Professional Competence at Public Elementary Schools in Cluster 07, Tiro, Pidie District. *Asian Journal of Applied Education (AJAE)*. <https://doi.org/10.55927/ajae.v4i3.14119>
- Vijayadevar, S., Thornton, K., & Cherrington, S. (2019). Professional learning communities: Enhancing collaborative leadership in Singapore early childhood settings. *Contemporary Issues in Early Childhood*, 20, 79–92. <https://doi.org/10.1177/1463949119833578>
- Voelkel, R. (2019). Causal relationship among transformational leadership, professional learning communities, and teacher collective efficacy. *International Journal of Leadership in Education*, 25, 345–366. <https://doi.org/10.1080/13603124.2019.1690699>
- Yakob, M., Sahudra, T., & Sukirno, S. (2025). Transformational Leadership of Principals: Driving Excellence in Education Quality. *AL-ISHLAH: Jurnal Pendidikan*. <https://doi.org/10.35445/alishlah.v17i1.6887>