

Adaptive Leadership Strategies of School Principals in Improving Learning Quality in Elementary Schools of Ketanggungan, Brebes

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e-ISSN: 2964-2981

ARMADA : Jurnal Penelitian Multidisiplin

<https://ejournal.45mataram.ac.id/index.php/armada>

Vol. 04, No. 08 Agustus, 2026

Page: 4527-4535

DOI:

<https://doi.org/10.55681/armada.v4i8.3671>

Article History:

Received: Juni 02, 2026

Revised: Juli 19, 2026

Accepted: Agustus 19, 2026

Abstract : Headteachers play a central role in improving learning quality, particularly amid curriculum change, digital transformation, and increasingly diverse pupil needs. This study examines the contribution of adaptive leadership to improving learning quality at SDN Jemasih 02 and SDN Baros 04, Ketanggungan District, Brebes Regency. A qualitative case study design was employed through in-depth interviews with headteachers, classroom teachers, subject teachers, and school committee members, supported by classroom observations and document analysis. Data were analysed using an interactive model. The findings show that headteachers practised adaptive leadership by building a shared vision, empowering teachers in a structured manner, and remaining open to controlled experimentation when responding to curriculum change. Key constraints included limited resources, uneven teacher readiness to use digital technology, and insufficient time for reflection. Consistent adaptive strategies encouraged teacher innovation and improved pupil engagement in learning. Adaptive leadership serves as a bridge between education policy and classroom improvement in resource-constrained rural primary schools.

Keywords : Adaptive Leadership; School Principal; Learning Quality; Elementary School; Qualitative Case Study.

Abstrak : Kepala sekolah memiliki peran sentral dalam peningkatan mutu pembelajaran, terutama di tengah perubahan kurikulum, transformasi digital, dan kebutuhan peserta didik yang semakin beragam. Penelitian ini mengkaji kontribusi kepemimpinan adaptif kepala sekolah terhadap peningkatan kualitas pembelajaran di SDN Jemasih 02 dan SDN Baros 04, Kecamatan Ketanggungan, Kabupaten Brebes. Penelitian menggunakan desain studi kasus kualitatif melalui wawancara mendalam dengan kepala sekolah, guru kelas, guru mata pelajaran, dan komite sekolah, disertai observasi kelas dan analisis dokumen. Data dianalisis menggunakan model interaktif. Hasil menunjukkan bahwa kepala sekolah menerapkan kepemimpinan adaptif melalui pembangunan visi bersama, pemberdayaan guru secara terstruktur, dan keterbukaan terhadap eksperimen terkendali dalam merespons perubahan kurikulum. Kendala utama meliputi keterbatasan sumber daya, kesiapan guru dalam penggunaan teknologi digital yang belum merata, dan terbatasnya waktu refleksi. Penerapan strategi adaptif yang konsisten mendorong inovasi guru dan meningkatkan keterlibatan belajar siswa. Kepemimpinan

adaptif berfungsi sebagai jembatan antara kebijakan pendidikan dan perbaikan pembelajaran di sekolah dasar pedesaan dengan sumber daya terbatas.

Kata Kunci : Kepemimpinan Adaptif; Kepala Sekolah; Kualitas Pembelajaran; Sekolah Dasar; Studi Kasus Kualitatif

INTRODUCTION

Elementary education carries a weight that later schooling cannot fully make up for. It is the stage where habits of thought, discipline, and curiosity first take shape, and where the eight national education standards, ranging from graduate competence to financing, are first put into daily practice. Indonesia's Kurikulum Merdeka pushes this demand further by asking teachers to differentiate instruction and cultivate the six dimensions of the Pancasila Student Profile, a set of expectations that a purely administrative style of school leadership struggles to satisfy on its own.

The difficulty principals face is rarely a shortage of formal authority; it is that many of the problems now landing on their desks are not technical in the sense Heifetz (1994) used the term. A technical problem has a known solution that existing expertise can apply directly. An adaptive problem instead asks people to change values, habits, or ways of working, and no manual supplies the answer in advance. Heifetz and Laurie (1997) argued that leadership under these conditions means helping people face reality and do the hard work of learning rather than shielding them from it. Northouse (2016) framed a closely related idea, describing effective leadership as the capacity to read a situation accurately and calibrate a response instead of applying one fixed style regardless of context. Yukl (2010) added that this calibration rests on strong situational judgment paired with interpersonal skill, while Goleman (2000) showed that leaders able to shift between directive and participative styles as circumstances demanded produced measurably better results than those locked into a single approach.

Two public elementary schools in Ketanggungan District, Brebes Regency, SDN Jemasih 02 and SDN Baros 04, illustrate what is at stake when this capacity is missing. Their most recent education report cards point to literacy and numeracy scores below target, classroom practice that has not yet consistently centered on students, and a school climate that leaves considerable room for improvement. None of these gaps traces back to a single missing regulation; each reflects a slower and harder shift in how teachers plan lessons, use assessment, and reflect on their own practice, precisely the kind of change that technical fixes alone cannot deliver.

Recent research on school leadership in Indonesia lends weight to this reading. Wijayanti et al. (2025) found that planned, ongoing academic supervision measurably raised teachers' professional competence, evidence that structured guidance rather than one off directives is what actually moves classroom practice forward. Munawir et al. (2025) reached a parallel conclusion, showing that sustained professional development programs, not isolated training sessions, build the kind of teacher capacity that adaptive challenges require. Putri (2025) demonstrated that a supportive, collaborative school culture correlates with higher student motivation, which suggests that the climate a principal cultivates matters at least as much as the policies a principal announces. Ayu et al. (2025) likewise found that a principal's ongoing mentoring of teachers, rather than administrative supervision alone, tracked with improvements captured in the school's own education report card, and Firmansyah and Muaini (2025) traced weak student interest in a core subject to a mix of internal and external factors that no single classroom level fix could resolve, again pointing toward the kind of systemic, adaptive response this study examines.

Taken together, this body of work suggests that adaptive leadership is not an abstract theoretical add on but a practical description of what already separates schools that manage to translate policy into classroom change from schools that do not. What remains underexamined, particularly for small rural elementary schools in districts such as Ketanggungan, is how principals actually diagnose which of their problems are adaptive rather than technical, how they mobilize teachers who differ widely in readiness, and what measurable difference this makes to the quality of learning. This article addresses that gap through a qualitative case study of SDN Jemasih 02 and SDN Baros 04, examining how principals' adaptive leadership practices relate to observed

improvements in instructional quality and what constraints continue to limit those practices in a resource constrained setting.

RESEARCH METHOD

This study used a qualitative case study design, chosen because the research question concerns how a specific leadership practice unfolds within the particular institutional setting of two schools rather than how often a variable occurs across a large sample. The design supplies the depth needed to trace the reasoning, decisions, and everyday interactions behind a principal's adaptive response to change (Sugiyono, 2018). The study was conducted at SDN Jemasih 02 and SDN Baros 04, Ketanggungan District, Brebes Regency, over roughly three months covering preparation, field data collection, analysis, and reporting. Informants were selected purposively and comprised the principal of each school, three to five class and subject teachers per school, spanning upper grade, lower grade, and specialist subject teachers such as PJOK and PAI, and the chair of each school committee. Consistent with the study's ethical protocol, informants are referred to by role code rather than name: KS for principal, GKT/GKR for upper and lower grade class teachers, GMP/GMA for subject teachers, and KKS for the school committee chair.

Three instruments were used. An in depth interview guide, organized around three sub-foci, namely leadership strategy, constraints encountered, and observed impact, directed conversations with each informant group. A classroom observation sheet recorded lesson planning, delivery, assessment, and the resulting classroom climate on a four point scale (1=poor to 4=very good). A document review covered lesson plans, student assessment records, and school work programs. Interviews were audio recorded with consent and transcribed verbatim, observations were logged in the field during and after each visit, and documents were coded against the same three sub-foci used in the interviews. Data were analyzed using the interactive model of Miles and Huberman as adapted by Sugiyono (2018): data reduction to isolate material relevant to the research questions, data display through coding matrices and narrative synthesis, and conclusion drawing verified through triangulation of sources and techniques, cross checking interview accounts against observation notes and documentary evidence, followed by member checking with both principals to confirm the accuracy of the interpretation.

RESULTS AND DISCUSSION

Adaptive Leadership Strategies in Responding to Curriculum and Policy Change

Interview and observation data converge on a similar pattern at both schools: neither principal treated the arrival of Kurikulum Merdeka as a matter of simply forwarding circulars to teachers. Instead, both used regular teacher meetings to walk through what the new curriculum would mean for lesson planning and assessment before asking teachers to change anything in their classrooms. Several class teachers described these sessions as the point where an abstract policy document turned into something they could actually plan around, which matches Heifetz and Laurie's (1997) argument that adaptive leadership works by getting people to do the interpretive work themselves rather than having it done for them. At the same time, the two schools differed in how far this shared-vision work translated into structured follow up. SDN Jemasih 02 paired weekly discussion with a rotating peer observation arrangement among teachers, giving the vision building stage a concrete next step. SDN Baros 04 relied more heavily on the principal's individual mentoring conversations with teachers who were struggling, an approach that reached fewer teachers per month but went deeper with each one. Table 1 summarizes how often each theme surfaced across informant groups.

Table 1. Frequency of Thematic Codes Across Informant Groups

Theme	KS (n=2)	GKT/GKR (n=8)	GMP/GMA (n=4)	KKS (n=2)
Building a shared vision for curriculum change	2	6	3	2

Structured empowerment of teachers (mentoring, PLC)	2	7	4	1
Tolerance for controlled classroom experimentation	2	6	2	1
Constraint: limited digital/infrastructure resources	2	5	3	2
Constraint: uneven teacher readiness for new methods	2	8	3	1
Constraint: limited time for reflection and evaluation	2	6	2	1
Reported improvement in teacher innovation	2	7	3	2
<i>Reported improvement in student engagement</i>	<i>2</i>	<i>6</i>	<i>3</i>	<i>2</i>

Source: coded interview transcripts, field observation notes, and document review (2026)

The pattern in Table 1 indicates that structured empowerment, mentoring, coaching, and peer learning communities, was the most frequently cited strategy among class and subject teachers, ahead of vision building conversations and controlled experimentation. This ordering is consistent with Munawir *et al.* (2025), who found that sustained, structured professional development rather than one-off directives is what actually builds teachers' capacity to adopt new practice, and with Wijayanti *et al.* (2025), whose evidence that planned academic supervision raises teacher competence lines up closely with what teachers in this study described receiving from their principals. Representative excerpts from the interview transcripts illustrate what this pattern looked like in daily practice, and cross checking these accounts against the classroom observation sheets and school documents (meeting minutes, supervision logbooks, peer-observation schedules) shows the same pattern from three independent angles rather than from interview claims alone.

“Kami tidak langsung meminta guru mengubah RPP nya. Setiap Sabtu kami duduk bersama membahas satu bagian kurikulum, sampai gurunya sendiri yang bilang, ‘oh, begini maksudnya, Bu.” (“We didn’t just ask teachers to rewrite their lesson plans right away. Every Saturday we sat down together and worked through one part of the curriculum, until the teacher herself would say, ‘oh, so that’s what it means.”) (KS-01, principal, SDN Jemasih 02)

“Setelah diskusi itu, saya jadi berani coba metode baru, karena tahu ada teman yang akan datang lihat kelas saya minggu depannya.” (“After that discussion, I felt braver about trying a new method, because I knew a colleague would come observe my class the following week.”) (GKT-03, upper-grade class teacher, SDN Jemasih 02)

“Kepala sekolah sering panggil saya satu-satu, bukan rapat besar. Enak sih, tapi jadi giliran saya lama nunggu.” (“The principal often calls us in one at a time, not as a big group meeting. It helps, but it means my turn can take a while to come.”) (GKR-02, lower grade class teacher, SDN Baros 04)

The peer observation schedule kept by SDN Jemasih 02’s academic coordinator corroborates KS-01 and GKT-03’s accounts: it lists a rotating observer for every classroom at least twice per month, matching what teachers described in interviews and what appeared in the observation-sheet notes on the frequency of peer visits. At SDN Baros 04, the principal’s supervision logbook shows a comparable number of coaching contacts overall, but concentrated on fewer teachers per session, which is consistent with GKR-02’s description of an individualized rather than scheduled rhythm. Read together, the three sources indicate that the difference between the two schools is not how much attention teachers received, but how that attention was structured and distributed, a distinction that a single data source, interviews alone, would not have made as clearly visible.

Constraints in Implementing Adaptive Leadership

Three constraints recurred across nearly every interview. The first was resource limitation: both schools operate with modest budgets, and principals reported having to prioritize which classrooms received new learning materials or minor infrastructure repairs in a given term. The second was uneven teacher readiness for digital tools, an issue GKT and GKR informants raised more often than any other constraint, since several teachers, particularly those closer to retirement, needed repeated one on one support before they were comfortable using digital assessment platforms. The third was time: teachers and both principals agreed that the school calendar left little room for the kind of structured reflection that turns a single successful lesson into a repeatable practice.

None of these three constraints is itself an adaptive challenge in Heifetz's (1994) sense; they are closer to technical bottlenecks that better resourcing or scheduling could partly resolve. What made them harder to manage in practice was that they interacted with the adaptive work already underway: a teacher who lacked confidence with new assessment software found it harder to also rethink her approach to differentiated instruction in the same term. Principals who recognized this interaction, sequencing digital skills support before asking teachers to also redesign their lesson plans, reported smoother uptake than those who introduced both changes simultaneously.

“Saya harus diajari ulang tiga kali baru bisa isi nilai di aplikasi. Anak muda cepat, saya lambat.” (“I had to be shown three times before I could enter grades in the app. The younger teachers pick it up quickly; I’m slower.”) (GKR-05, class teacher nearing retirement, SDN Baros 04)

This account matches what the document review found in both schools’ professional development attendance records: teachers over roughly fifty years of age appear disproportionately often in the list of staff who required repeat sessions on the same digital tool, and the classroom observation sheets independently show that this same group scored lowest on the assessment-practice dimension in Table 2. The convergence of an interview account, an attendance record, and an observation score around the same sub-group of teachers is what allows the constraint to be described here as a readiness gap concentrated by tenure rather than a general weakness across the whole staff.

Impact of Adaptive Leadership on Learning Quality

Classroom observation data, summarized in Table 2, show a consistent gap favoring SDN Jemasih 02 across all four aspects scored, most notably in the impact dimension, which captures student engagement, understanding, classroom climate, and the degree to which instruction centered on students.

Table 2. Average Classroom Observation Scores (Scale 1-4)

Aspect Observed			SDN Jemasih 02	SDN Baros 04
Lesson planning	(perencanaan pembelajaran)		3.4	3.1
Instructional delivery	(pelaksanaan pembelajaran)		3.5	3.2
Assessment practice	(penilaian pembelajaran)		3.2	3.0
Impact on learning quality	(dampak terhadap kualitas pembelajaran)		3.6	3.2

Source: classroom observation sheets, mean of scored sessions (2026)

This gap tracks closely with the more structured, follow through oriented pattern of adaptive leadership described earlier at SDN Jemasih 02. It is consistent with Putri (2025), who linked a supportive and collaborative school culture to higher student motivation, and with Ayu et al. (2025), whose findings tied a principal's continuous mentoring of teachers, rather than administrative supervision alone, to measurable gains reflected in the school's education report

card. Figure 1 summarizes how the mechanisms observed in this study connect: contextual pressures prompt adaptive leadership responses, which shape day to day school dynamics, which in turn show up as differences in learning quality, with outcomes feeding back into how each principal adjusts strategy going forward.

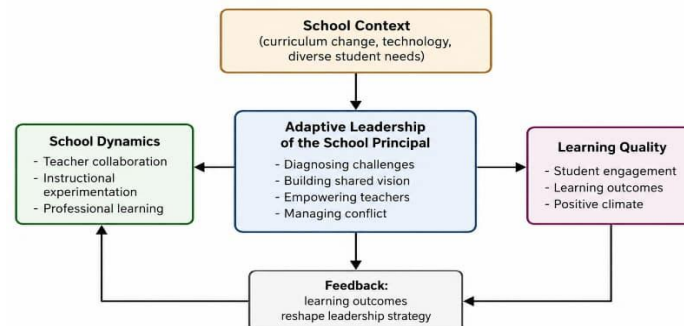


Figure 1. Conceptual Framework Linking Adaptive Leadership to Learning Quality
Source: developed by the researcher based on Heifetz (1994), Northouse (2016), and field findings (2026)

Read against Yukl's (2010) emphasis on situational judgment and Goleman's (2000) evidence that flexible, context sensitive leadership outperforms a single fixed style, the pattern across both schools suggests that adaptive leadership in this setting is less about any single signature technique and more about a principal's willingness to sequence vision-building, empowerment, and experimentation according to what a particular group of teachers can absorb at a given time. Where that sequencing was deliberate, as at SDN Jemasih 02, learning quality indicators were consistently higher; where it was less structured, as at SDN Baros 04, teachers still reported growth but at a visibly slower pace. Firmansyah and Muaini (2025) offer a useful caution here: some obstacles to learning quality originate outside the classroom altogether, in family or community factors a principal cannot directly influence, which is a reminder that adaptive leadership can narrow but not fully close every gap in learning outcomes.

Representative Accounts of Impact on Learning Quality

"Sekarang anak-anak lebih berani tanya di kelas, itu yang saya lihat waktu kunjungan."
(*"The children are braver about asking questions in class now that's what I have seen during my visits."*) (KKS-01, school committee chair, SDN Jemasih 02)

"Perubahannya ada, tapi pelan. Butuh waktu karena kita jalan sendiri-sendiri, nggak barengan kayak sekolah lain." (*"There has been change, but it's slow. It takes time because we work things out on our own, not together the way I hear other schools do."*) (GMP-02, PJOK subject teacher, SDN Baros 04)

KKS-01's observation aligns with the impact-dimension scores in Table 2, where SDN Jemasih 02 (3.6) exceeded SDN Baros 04 (3.2), and with classroom observation notes recording more student-initiated questions per session at SDN Jemasih 02 during the same period. GMP-02's account, in turn, matches both the slightly lower observation scores at SDN Baros 04 and the more individualized mentoring pattern documented in that school's supervision logbook. Because the same relationship, more structured follow-through corresponding with stronger and faster visible gains, shows up independently in interview accounts, in scored observations, and in internal school records, the association described here rests on triangulated evidence rather than on any single source.

Triangulation of Data Sources

Across all three themes discussed above, curriculum vision-building, constraint management, and impact on learning quality, the analysis deliberately checked interview claims against two independent sources: the classroom observation sheets scored during site visits, and internal school documents (peer observation schedules, supervision logbooks, professional development attendance lists, and lesson-plan archives). Three cross checks proved decisive for the

interpretation offered here. First, teachers' reports of structured peer observation at SDN Jemasih 02 were confirmed by that school's own observation schedule rather than resting on teachers' memory of how often visits occurred. Second, the digital readiness gap raised repeatedly by GKT/GKR informants was independently visible in professional development attendance records and in observation sheet scores for the same sub group of teachers, which is what allowed the gap to be attributed to tenure rather than treated as an impression from a few vocal informants. Third, the higher impact scores recorded for SDN Jemasih 02 in Table 2 were not read in isolation but set against both interview accounts of student engagement and the qualitative notes attached to each observation session, which described the same pattern in narrative form. Where a claim appeared in only one source, most often a single informant's personal assessment of their own growth, it was treated in this article as illustrative rather than as a verified finding, and is flagged as such rather than folded into the study's conclusions.

Toward an Emergent Model of Sequenced Adaptive Leadership

The theoretical frameworks of Heifetz (1994), Northouse (2016), and Yukl (2010) explain why adaptive leadership matters in principle. Recent empirical research has extended this foundation by showing that adaptive leadership is particularly important when principals must diagnose context-specific challenges, mobilise teachers, and develop collaborative school cultures (Alene *et al.*, 2025; Sumiati *et al.*, 2024). Studies of contemporary school leadership further suggest that the translation of leadership into instructional innovation depends not only on particular leadership behaviours but also on organisational mechanisms such as teacher self-efficacy, professional learning communities, and institutional readiness for digital change (Dasruth *et al.*, 2024; Hsieh *et al.*, 2026; Paletta & Alimehmeti, 2026). However, these perspectives do not, on their own, predict the specific pattern that separated the two cases in this study: both principals drew on the same three moves vision-building, empowerment, and tolerance for experimentation yet only one school converted that repertoire into a fixed, repeatable sequence. Figure 2 therefore presents a model developed directly from the cross-case comparison rather than adapted from an existing framework. It represents adaptive leadership in this setting as a four-stage cycle comprising diagnostic framing, structured mobilisation, bounded experimentation, and reflective consolidation, which feeds back into the subsequent framing stage. A constraint-absorption layer comprising resource limitations, uneven digital readiness, and limited reflection time runs underneath all four stages and influences how quickly a school can progress through the cycle rather than whether the cycle can operate at all.

What the field data add to this cycle, and what distinguishes it from a straightforward application of Heifetz's or Northouse's theory, is the finding that schools facing materially similar constraints can still diverge substantially in outcomes depending on whether the adaptive cycle is implemented as a deliberate and scheduled sequence or absorbed informally into a principal's individual mentoring style. This distinction is consistent with recent evidence showing that collaborative school culture and professional learning communities can mediate the relationship between leadership and teacher performance or instructional innovation, indicating that organisational mechanisms matter alongside leadership behaviour itself (Sumiati *et al.*, 2024; Paletta & Alimehmeti, 2026). Similarly, recent multilevel evidence demonstrates that leadership can influence teacher innovativeness both directly and indirectly through teacher self-efficacy, reinforcing the importance of the processes through which leadership is translated into practice (Hsieh *et al.*, 2026). In the present cases, SDN Jemasih 02's rotating peer-observation schedule functioned as a fixed bridge between mobilisation and experimentation, enabling the cycle to close more quickly and predictably. SDN Baros 04's individualised mentoring achieved the same four stages in substance; informants described moving through essentially the same reasoning process, but without a scheduled mechanism that consistently forced the loop to close. Consequently, the cycle took longer to complete and reached fewer teachers within each term. This difference is especially relevant in contexts where digital readiness and institutional support remain uneven, conditions that recent research identifies as significant challenges for school leaders attempting to mobilise technology-related change (Dasruth *et al.*, 2024). The model therefore treats sequencing structure, rather than the presence or absence of any single leadership behaviour, as the field-

observed variable that most consistently distinguished faster from slower gains in learning quality across the two cases.

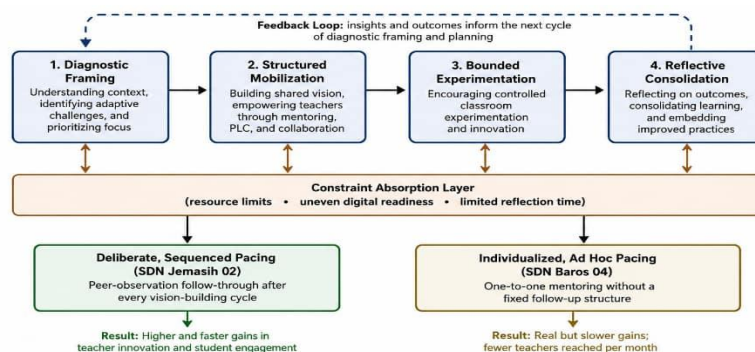


Figure 2. Emergent Sequenced Adaptation Model (ESAM)

Source: developed by the researcher from cross-case field findings at SDN Jemasih 02 and SDN Baros 04 (2026)

Two limits on this model should be stated directly. It is built from two cases in one district, so the four stages and the constraint absorption layer describe a pattern rather than a tested causal mechanism, and a larger, multi district sample would be needed before treating the sequencing effect as generalizable. It also cannot rule out that unmeasured differences between the two principals, beyond sequencing style, contributed to the gap in Table 2, the model identifies sequencing as the most consistent and triangulated distinguishing factor in this dataset, not as the sole explanation.

CONCLUSION AND SUGGESTIONS

This study finds that principals at SDN Jemasih 02 and SDN Baros 04 practice adaptive leadership primarily through three interlocking moves: building a shared understanding of curriculum change before demanding compliance with it, empowering teachers through structured mentoring and peer learning rather than one off training, and tolerating controlled classroom experimentation as teachers adjust to new methods. These strategies met three recurring constraints, limited resources, uneven digital readiness, and insufficient time for reflection, none of which is itself an adaptive problem but each of which slows adaptive work when left unmanaged. Where the three leadership moves were applied in a deliberate, sequenced way, as observed at SDN Jemasih 02, classroom observation scores and reported teacher innovation were consistently higher than at the school where the same moves were applied more individually and less systematically.

For practice, principals in similar rural elementary settings would likely benefit from formalizing the sequencing already visible in the stronger performing case: pairing any new curriculum expectation with a scheduled follow up mechanism, whether peer observation or mentoring, rather than leaving that follow up to individual initiative. District education offices could support this by directing a portion of professional development funding specifically toward digital skills coaching for teachers nearing retirement, since this group's readiness gap appeared repeatedly across interviews. Future research with a larger number of schools and a longitudinal design would help establish whether the association observed here between sequenced adaptive leadership and learning quality holds beyond these two cases.

ACKNOWLEDGMENTS

The author thanks the principals, teachers, and school committees of SDN Jemasih 02 and SDN Baros 04 for their openness during data collection, and the supervisors at the Postgraduate Program in Educational Management, Universitas PGRI Semarang, Prof. Dr. Harjito, M.Hum. and Dr. H. Ghufroon Abdullah, M.Pd., for their guidance throughout the preparation of this study.

REFERENCES

- Bloom, B. S. (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain*. Longmans, Green.
- Firmansyah, A., & Muaini. (2025). Analisis faktor-faktor yang memengaruhi rendahnya minat belajar siswa pada mata pelajaran matematika di kelas VI SD Negeri Aik Berik Kabupaten Lombok Tengah tahun ajaran 2024/2025. *Jurnal Pendidikan, Sains, Geologi, dan Geofisika (GeoScienceEdu Journal)*, 6(2), 1008–1013. <https://jpfis.unram.ac.id/index.php/GeoScienceEdu/article/view/729>
- Goleman, D. (2000). Leadership that gets results. *Harvard Business Review*, 78(2), 78–90.
- Heifetz, R. A. (1994). *Leadership without easy answers*. Belknap Press of Harvard University Press.
- Heifetz, R. A., & Laurie, D. L. (1997). The work of leadership. *Harvard Business Review*, 75(1), 124–134.
- Munawir, M., Yani, F. P., & Az-zahra, E. A. (2025). Pengembangan profesionalisme guru melalui program pendidikan berkelanjutan: Sebuah kajian literatur. *Indonesian Journal of Learning and Educational Studies*, 3(1), 14–26. <https://doi.org/10.62385/ijles.v3i1.179>
- Northouse, P. G. (2016). *Leadership: Theory and practice* (7th ed.). Sage Publications.
- Ayu, N., Mas'udah, H., & Soedjono. (2025). Peran pendampingan kepala sekolah terhadap guru dalam meningkatkan kualitas pembelajaran di SD Islam Nurussunnah. *Kelola: Journal of Islamic Education Management*, 10(1), 126–135. <https://doi.org/10.24256/kelola.v10i1.6106>
- Putri, A. N. K. (2025). Kondusifitas lingkungan sekolah dan budaya sekolah dalam meningkatkan motivasi belajar peserta didik (Sebuah kajian konseptual sebagai panduan bagi peneliti). *Jurnal Pendidikan dan Kebudayaan Nusantara*, 3(1), 10–20. <https://doi.org/10.38035/jpkn.v3i1.2074>
- Sugiyono. (2018). *Metode penelitian pendidikan: Pendekatan kuantitatif, kualitatif, dan R&D*. Alfabeta.
- Wijayanti, D. R., Nurkolis, & Murniati, N. A. N. (2025). Pengaruh supervisi akademik terhadap kompetensi profesional guru. *Didaktika: Jurnal Kependidikan*, 14(2), 2737–2748. <https://doi.org/10.58230/27454312.2099>
- Yukl, G. (2010). *Leadership in organizations* (7th ed.). Pearson Education.
- Alene, A. A., Tsegaye, M. A., & Wolle, G. S. (2025). Secondary school principals' adaptive leadership practices amid the quality education crisis in Amhara regional state, Ethiopia. *Social Sciences & Humanities Open*, 11, 101349. <https://doi.org/10.1016/j.ssaho.2025.101349>
- Dasruth, J., Naicker, S. R., & Smith, C. (2024). Teachers' perceptions of principals' digital leadership practices in a school district in a developing country. *Social Sciences & Humanities Open*, 10, 101192. <https://doi.org/10.1016/j.ssaho.2024.101192>
- Hsieh, C.-C., Tai, S.-E., & Li, H.-C. (2026). Impact of school leadership on teacher innovativeness: Evidence from multilevel analysis of Taiwan TALIS 2018. *Asia Pacific Journal of Education*, 46(3), 835–852. <https://doi.org/10.1080/02188791.2024.2397040>
- Paletta, A., & Alimehmeti, G. (2026). Does the professional learning community intermediate the effects of principal's leadership on teaching innovation? *Management in Education*, 40(3), 192–201. <https://doi.org/10.1177/08920206231200099>
- Sumiati, S., Kurniady, D. A., Komariah, A., Suryana, A., Dadi, D., & Hafidh, Z. (2024). Linking principal adaptive leadership to teacher performance: The mediating effect of collaborative school culture. *Journal of Social Studies Education Research*, 15(4), 17–41.