

Optimizing Academic Supervision by School Principals to Improve Elementary School Teachers' Performance: A Systematic Literature Review

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Abstract: This study analyzes and optimizes principal-led academic supervision to improve elementary teacher performance. A Systematic Literature Review (SLR) of 15 peer-reviewed articles (2021–2026) identifies four essential dimensions: (systematic planning aligned with teacher needs, clinical observation with collaborative feedback, sustained follow-up programs, and technology integration for efficiency and transparency. Key synthesized findings also reveal persistent barriers: principals' excessive administrative loads and lack of specialized supervisory training. The novelty lies in an empirically-grounded optimization framework tailored specifically to primary school contexts. Practically, the results offer principals actionable strategies and provide education authorities a blueprint for targeted training programs. The contribution advances supervision theory by linking practices directly to teacher professional development and student learning outcomes in elementary schools.

Keywords: Academic Supervision, Elementary School Teachers, Principal's Supervision, Supervision Optimization, Teachers' Performance

A. Introduction

Academic supervision has long been recognized as a fundamental responsibility of school principals in ensuring educational quality. Extensive literature spanning several decades has established that effective academic supervision contributes significantly to teacher professional development and instructional improvement. Academic supervision as a systematic process designed to support teachers in enhancing their instructional capabilities through observation, feedback, and collaborative reflection (Brown et al., 2024). Supervision should function as a developmental rather than evaluative process, focusing on teacher growth and empowerment rather than punitive judgment (Ketonen et al., 2025). Research has consistently demonstrated that high-quality academic supervision positively influences teacher performance across multiple dimensions. Studies indicate that teachers who receive regular, constructive supervision demonstrate improved lesson planning, more effective classroom management, greater instructional variety, and enhanced student engagement (Rafiqie, 2025). Furthermore, effective supervision has

been linked to increased teacher motivation, job satisfaction, and commitment to professional growth (Qorib, 2024). These findings underscore the critical role that principals play as instructional leaders who actively engage in improving teaching and learning rather than merely administering school operations.

In the Indonesian context, academic supervision is explicitly mandated by national education regulations. Permendiknas Number 13 of 2007 establishes academic supervision as a core competency for school principals, requiring them to conduct systematic supervision cycles including planning, implementation, evaluation, and follow-up. This regulatory framework positions supervision as a non-negotiable component of principal responsibilities, reflecting the government's recognition of its importance for educational quality. Studies in Indonesian elementary schools have shown that principals who actively engage in academic supervision contribute to improved teacher competence and student learning outcomes (Mekarsari et al., 2025). Recent Indonesian research has increasingly focused on developmental supervision models aligned with Kurikulum Merdeka, which emphasizes teacher autonomy and reflective practice (Sunariati et al., 2024). Contemporary scholarship in Indonesia also highlights clinical supervision cycles involving pre-observation conferences, classroom observations, and post-observation feedback conferences (Muhimatul Lailiyah et al., 2025), as well as differentiated approaches recognizing that teachers at different career stages require varying levels and types of supervisory support (Adiyani et al., 2025).

Despite the established importance of academic supervision and the policy mandates in Indonesia, significant gaps remain in the literature. First, there is no synthesized understanding of what specific supervisory strategies and approaches are most effective specifically in elementary school contexts. While the theoretical benefits of academic supervision are well-documented, elementary teachers face unique developmental considerations with young learners that may require differentiated supervisory approaches compared to secondary education settings. The field lacks a systematic synthesis of empirical evidence identifying which supervision components yield the greatest impact on elementary teacher performance. Second, existing supervision models were largely developed in Western educational contexts and may not fully account for Indonesian cultural, structural, and policy realities. Most theoretical frameworks underpinning contemporary supervision practices originated in North American and European settings, where school governance structures, principal preparation pathways, and cultural expectations regarding feedback and authority differ substantially from those in Indonesia. Without contextually-validated frameworks, Indonesian principals may struggle to implement supervision practices that are culturally appropriate and structurally feasible within the national education system. Third, the specific mechanisms through which optimized supervision translates into measurable improvements in elementary teacher instructional quality remain under-theorized and under-researched. While correlational studies have established associations between supervision and teacher outcomes, the causal

pathways and moderating variables remain poorly understood. It is unclear how contextual factors including principal leadership style, school culture, teacher experience levels, and resource availability influence the effectiveness of academic supervision in improving teacher performance. Recent studies have explored technology integration in supervision, including video-based observation and digital feedback platforms (Pajak, 2016), yet evidence on how these tools function in Indonesian elementary settings remains limited. Many principals face significant implementation challenges due to heavy administrative burdens, limited supervisory training, and insufficient understanding of clinical supervision techniques (Cansoy et al., 2025). While existing research has thoroughly documented these challenges, the literature offers limited empirically-guidance on how to systematically optimize supervision practices to overcome these barriers.

This study addresses these identified gaps through a systematic review of existing empirical evidence. By synthesizing findings from peer-reviewed research published between 2021 and 2026, this review aims to consolidate what is currently known about effective academic supervision in elementary school contexts and to develop an empirically-grounded optimization framework relevant to Indonesian educational realities. The research is guided by the following questions: What are the current practices, challenges, and effectiveness of academic supervision conducted by elementary school principals in improving teacher performance?, How can academic supervision practices be systematically optimized to more effectively enhance elementary school teacher instructional quality?, What contextual factors moderate the relationship between optimized academic supervision and teacher performance improvement in elementary schools?

B. Methods

This study employed a Systematic Literature Review (SLR) following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. The review protocol included the following steps: The review addressed three questions: What are current practices, challenges, and effectiveness of principal academic supervision for elementary teacher performance How can academic supervision be optimized to enhance teacher instructional quality? What contextual factors moderate this relationship?. A systematic search was conducted in Scopus, ERIC, and Google Scholar using ("academic supervision" OR "instructional supervision" OR "principal supervision") AND ("teacher performance" OR "teacher effectiveness" OR "teacher quality") AND ("elementary school" OR "primary school").

Articles were included if they were, peer-reviewed, published between 2021 and 2026, written in English or Indonesian, focused on elementary/primary education, and empirically examined the relationship between principal supervision and teacher performance. Exclusion criteria included conceptual papers without empirical data,

secondary school-only studies, and non-academic publications.

Resulting in 15 articles meeting all inclusion criteria. Included studies were quality-appraised using the Critical Appraisal Skills Programme (CASP) checklist for qualitative studies and appropriate tools for quantitative studies. No studies were excluded based on quality assessment alone, but methodological limitations were noted (Bernacki et al., 2021). Data were extracted using a standardized form including author, year, context, methods, sample, key findings, and limitations. Analysis employed thematic synthesis, identifying patterns, themes, and relationships across studies.

C. Results and Discussion

Theme 1: Effective Supervision Practices

Synthesized findings across multiple studies consistently identify specific supervisory practices that positively influence elementary teacher performance. (He et al., 2024a) established through quantitative analysis that instructional leadership serves as a significant predictor of teacher professional development, with statistical evidence confirming strong associations between principal leadership behaviors and teacher motivation. This finding validates the fundamental premise that purposeful principal action drives teacher growth. In the systematic literature review of 15 articles, identified four key approaches through which academic supervision improves teacher performance: teacher coaching focusing on curriculum-aligned lesson planning, individual approaches creating teacher comfort and receptivity, work motivation enhancement, and targeted teacher training (Imamah & Churrahman, 2022a). Their synthesis demonstrates that these approaches enable teachers to identify deficiencies and continuously improve instructional preparation. The comparative case study evidence from two elementary schools, demonstrating that systematic quality management of principal academic supervision significantly enhances teacher pedagogical competence when implemented through structured, continuous, and supportive frameworks (Fadhilah & Wasliman, 2026). Their research advances theoretical integration of instructional leadership, quality management, and collaborative learning frameworks, offering actionable strategies for practitioners.

The qualitative evidence from Cokroaminoto Kauditan Elementary School, revealing that academic supervision conducted in a structured and ongoing manner proves effective (Hou, 2023). Similarly (Basuni et al., 2025) found that the management process encompassing planning, organizing, implementing, and supervising emphasizes religious values and technology utilization in learning, with supervision constituting an essential component of the principal's role. The principal management contributes positively to teacher performance and learning quality when principals demonstrate creativity and innovation in school management (Rostini et al., 2022). The qualitative methods that academic supervision implementation follows three crucial

stages: planning, implementation, and evaluation or follow-up (Setyaningsih & Suchyadi, 2021).

The quantitative evidence from public elementary schools in Singorojo District, demonstrating that school principal leadership and school organizational climate significantly influence teacher performance, both partially and simultaneously (Sugiyanto et al., 2025). This finding reinforces that supervision effectiveness cannot be separated from the broader institutional context and leadership environment. Synthesis across Theme 1: Effective academic supervision in elementary schools requires, systematic planning aligned with teacher development needs, structured implementation through clinical observation cycles, constructive feedback mechanisms emphasizing coaching rather than evaluation, and continuous follow-up programs supporting sustained improvement. The evidence consistently indicates that supervision functions best as a developmental rather than evaluative process.

Theme 2: Challenges and Barriers

Multiple studies identified persistent challenges that hinder effective academic supervision implementation. The teacher performance quality decreased significantly due to pandemic-related limitations on interaction space for teaching and learning activities (Alwi & Mumtahana, 2023a). Their qualitative research identified several inhibiting factors in implementing principal strategies, including limited access to online teaching platforms and difficulties monitoring student engagement. Principals responded by providing motivation, online training, and facility improvements, yet structural barriers remain.

The discipline deficits as a primary obstacle to teacher performance improvement (Pisriwati et al., 2024a). Their findings reveal that some teachers lack adequate discipline, and facility constraints hinder progress. The study recommends that education offices enhance public understanding of government policies and optimize organizational resources and collaboration to address these issues. The broader literature synthesized by (Imamah & Churrahman, 2022a) and (Rozi et al., 2022) indicates that common barriers include principals' heavy administrative burdens, limited supervisory training, insufficient time allocated for supervision activities, and inadequate understanding of clinical supervision techniques. These challenges transform supervision into a formalistic exercise rather than a meaningful mentoring process. Synthesis across Theme 2: Despite policy mandates and recognized importance, supervision implementation faces consistent barriers at multiple levels: principal-level (insufficient training, administrative overload), teacher-level (discipline issues, receptivity), and structural-level (facility constraints, time allocation). These barriers reinforce the need for systematic optimization rather than mere implementation.

Theme 3: Supervision Models and Frameworks

Several studies provide explicit frameworks for organizing academic supervision. The principal's supervisory role through three distinct stages: planning, implementation, and evaluation, while emphasizing the importance of fostering collegiality among teachers (Khofi & Santoso, 2024). Their findings indicate that leadership and quality assurance systems play significant roles in improving teacher performance.

Both academic and clinical supervision approaches, concluding that supervision constitutes an effective method for improving teacher performance (Rozi et al., 2022). Their systematic literature review reinforces that clinical supervision cycles involving pre-observation conferences, classroom observations, and post-observation feedback provide a structured mechanism for performance enhancement. A quality management framework integrating instructional leadership with collaborative learning approaches (Fadhilah & Wasliman, 2026). Their comparative case study across two elementary schools demonstrated that structured, continuous, and supportive frameworks produce superior outcomes compared to ad-hoc or evaluative-only approaches. A comprehensive management framework encompassing planning, organizing, implementing, and supervising functions (Basuni et al., 2025). This framework positions supervision within broader school management while emphasizing technology utilization and religious values integration. Synthesis across Theme 3: Effective supervision frameworks share common structural elements: systematic planning cycles, clinical observation techniques with pre- and post-observation conferences, collaborative feedback mechanisms, and continuous follow-up programs. Technology integration emerges as an increasingly important component for supervision efficiency and transparency.

Theme 4: Conflicting Evidence and Critical Analysis

The most notable contradictory finding emerges from (Karim et al., 2021a), whose quantitative study of private Madrasah Ibtidaiyah (elementary-level Islamic schools) in Pacet District revealed that principal supervision had a negative effect on teacher performance, while teacher professional competence showed a strong positive effect. The significance value of confirms this negative relationship is statistically significant, not coincidental. This finding directly challenges the assumption that principal supervision inherently improves teacher performance. Several explanations warrant consideration. First, the quality of supervision implementation likely matters tremendously poorly executed supervision may be counterproductive rather than helpful. Second, in some contexts, supervision may be perceived as evaluative and threatening rather than developmental and supportive, potentially damaging teacher morale and performance. Third, cultural and contextual factors specific to the Islamic elementary school setting may influence how supervision is received and enacted.

This contrary evidence does not invalidate the broader literature but rather

strengthens the argument that optimization is essential. Simply conducting supervision is insufficient; supervision must be executed correctly, collaboratively, and supportively to achieve positive outcomes. The negative finding serves as a critical reminder that ineffective supervision can potentially damage teacher performance rather than improve it. Synthesis across Theme 4: The conflicting evidence underscores that supervision quality, approach, and context determine outcomes. Teacher professional competence may have stronger direct effects on performance than supervision alone. However, supervision that is planned, collaborative, and developmental rather than evaluative and hierarchical produces positive effects. The negative finding reinforces the central thesis of this review: optimization, not mere implementation, is essential.

Summary of Synthesized Findings

The thematic synthesis yields five key conclusions regarding academic supervision optimization for elementary teacher performance: Structured cycles matter: Effective supervision follows systematic planning, clinical observation, constructive feedback, and continuous follow-up (He et al., 2024a); (Khofi & Santoso, 2024); (Setyaningsih & Suchyadi, 2021), Collaborative approach is essential: Supervision functions best as developmental coaching rather than evaluative judgment, fostering teacher motivation and receptivity (Imamah & Churrahman, 2022b), Contextual factors moderate effects: School culture, principal leadership style, teacher experience levels, and resource availability influence supervision effectiveness (Sugiyanto et al., 2025); (He et al., 2024b); (Basuni et al., 2025), Barriers require systematic solutions: Administrative burdens, limited training, time constraints, and facility issues consistently impede effective supervision (Alwi & Mumtahana, 2023b), Quality determines outcomes: Poorly executed supervision may negatively impact teacher performance, while optimized, collaborative supervision produces positive gains (Karim et al., 2021b).

Table 1. Article Journal Reviewed

No	Title	Author and Year	Research Purposes	Research Methods	Research Result	Conclusion
1.	School principals' instructional leadership as a predictor of teacher's professional development	(He et al., 2024a)	Investigates the role of school principals' instructional leadership as a predictor of teachers' professional development	Data were collected using the "Principal's Instructional Leadership Practices and Teachers' Professional Development" (PILPTPD) tool	Reveal significant associations between instructional leadership and teacher professional development and growth	This study found a strong relationship between the way the principal led in terms of teaching and teacher motivation. This research also found several of these leadership methods that can help teachers' professional development. In order for schools to be more effective, principals must actively look for ways to support teacher development. This is important because the role of the principal is very big in advancing the school, so they must really understand how to lead well.

2.	The Principal's Strategy in Improving the Quality of Teacher Performance in the Learning Process in Islamic Elementary Schools	(Alwi & Mumtahana, 2023b)	(1) How is the teacher's performance in the learning process during a pandemic in shaping the noble character of students? (2) What is the principal's strategy in improving the quality of teacher performance in the learning process without leaving the educational institution's mission, namely to form the noble character of students? (3) What is the inhibiting and supporting factors experienced by school principals in improving the quality of teacher performance in the learning process by forming students' noble character?	A qualitative method	The researchers concluded that: (1) the quality of the performance of local teachers has decreased due to the pandemic which limited the space for interaction to carry out teaching and learning activities. (2) The principal's strategy is very influential and needed in improving teacher performance in the learning process. (3) there are several inhibiting factors in implementing the principal's strategy	Principals must lead teaching, not just handle administration, but also support teacher development. At one school, teacher performance suffered during the pandemic due to online teaching and monitoring worship. The principal responded with motivation, online training, and facilities. In conclusion, principal supervision and teacher competence influenced performance by 64%, with 36% due to other factors.
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3	The Effect of The Supervision of The Principal and The Professional Competency of Teachers on Teacher Performance in Private MI in Pacet District	(Karim et al., 2021a)	Teachers at least have pedagogic competence, professional competence, social competence and pedagogic competence	Quantitative research	According to the results, it shows a significance value of $0.000 < 0.05$, so it can be concluded that there is a significant effect of Principal Supervision and Teacher Professional Competence on Teacher Performance
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4	Enhancing Organizational Development through Principal Leadership to Improve Teacher and Staff Work Discipline	(Pisriwati et al., 2024b)	Detail and explain the role played by the principal in improving the work discipline of teachers and employees at particular private high school in Yogyakarta, Indonesia	Descriptive qualitative research using purposive sampling techniques	Principals must lead instruction, not just administration, and support teacher growth. At one school, teacher performance suffered during the pandemic due to difficulties with online teaching and monitoring student worship. The principal responded by providing motivation, online training, and facilities. In conclusion, principal supervision and teacher competence influenced performance by 64%, with 36% due to other factors.	Teacher Professional Competence positively influences teacher performance by 84%, while Principal Supervision shows a negative effect of -8.2%. Despite this, principals remain responsible for creating a conducive environment, motivating teachers, and utilizing school assets to achieve goals. However, obstacles such as lack of discipline among teachers and facility constraints hinder progress. To address these issues, it is recommended that the Sleman District Education Office enhance public understanding of government policies, particularly the teacher association program for high school economics subjects, to optimize organizational resources and collaboration.
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5	Academic Supervision by School Principals for Improving Teacher Performance	(Imamah & Churrahman, 2022b)	Analyze the effect of academic supervision by principals on teacher performance.	Systematic literature review	A systematic literature review of 25 articles from national and international journals (2015–2021) found that academic supervision by principals improves teacher performance, encourages professional development, enables individual approaches, and provides necessary training and motivation.	Academic supervision by principals improves teacher performance through four key approaches: teacher coaching (planning lessons aligned with the curriculum), individual approaches (creating comfort at work), work motivation, and teacher training. Applying these findings helps teachers identify deficiencies and prepare better for teaching, leading to continuous performance improvement.
6	School Principal Supervision and Teacher Professionalism: A Study on Leadership in Islamic Schools	(Khofi & Santoso, 2024)	This study examines the role of principals as supervisors in improving teacher professionalism in Islamic senior high schools. It aims to analyze the principal's supervisory role, identify supporting and inhibiting factors, and assess their impact on teacher professionalism.	The principal's role	Reveal that school principals supervise through planning, implementation, and evaluation while fostering a sense of collegiality	The results of this study indicate that leadership and the quality assurance system play a significant role in improving teacher performance at SMA Islam <i>Brawijaya</i>

7	The Effectiveness of Principals' Supervision in Improving Teacher Performance	(Rozi et al., 2022)	Effectiveness of principal's supervision in improving teacher performance through academic and clinical supervision of the problems faced by teachers	A systematic literature review	Supervision is an effective way of improving teacher performance	Supervision carried out by the principal has a very good effectiveness and contributes in improving the performance of Islamic religious education teachers
8	Management of Principal Leadership in Improving Teacher Performance to Optimize the Quality of Education at Tenggarong Elementary school	(Basuni et al., 2025)	Scribe the planning, organizing, implementation, and supervision carried out by the principal in improving teacher performance to maximize the quality of education at Muhammadiyah 1 Elementary School in Tenggarong	A case study method	Theory-guided method for the design of PL and recommend research methods that can parse the effects	The management process, which includes planning, organizing, implementing, and supervising, shows that the principal emphasizes religious values and the utilization of technology in learning
9	School Principal Academic Supervision in Improving Teacher Performance at Cokroaminoto Kauditan Elementary School	(Hou, 2023)	Delve into the management of Principal Academic Supervision and its impact on enhancing teacher performance at <i>Cokroaminoto Kauditan</i> Elementary School	Methodology involving observation and in-depth interviews	Provides valuable insights into the dynamics of academic supervision management and its role in elevating the professionalism of elementary school teachers	Academic supervision carried out by the principal at SD Cokroaminoto Kauditanis structured and ongoing
10	Leadership Style and Principal Supervision in	(Warman et al., 2021)	Examines the leadership style and supervision of	Cross-sectional descriptive method	Indicate that the principals' leadership style in	This study examines the leadership style and supervision of principals in improving teacher

	Improving Teacher Performance at State High Schools in <i>Kutai Karta Negara</i> Regency, East Kalimantan Province, Indonesia		principals in improving teacher performance in several public high schools in <i>Kutai Kartanegara</i> Regency, East Kalimantan Province		improving teacher performance is a leadership style democratic and authoritarian	performance in several public high schools in <i>Kutai Kartanegara</i> Regency, East Kalimantan Province
11	Quality Management of Principal Academic Supervision for Enhancing Teacher Pedagogical Competence	(Fadhilah & Wasliman, 2026)	Investigated quality management approaches to principal academic supervision in enhancing teacher pedagogical competence through comparative analysis of two elementary schools	A qualitative multiple case study design	Advances theoretical integration of instructional leadership, quality management, and collaborative learning frameworks while offering actionable strategies for practitioners	This comparative case study demonstrates that systematic quality management of principal academic supervision significantly enhances teacher pedagogical competence when implemented through structured, continuous, and supportive frameworks
12	The Significance of Principal Management on Teacher Performance and Quality of Learning	(Rostini et al., 2022)	Improving the quality of learning can be achieved by the quality of managerial ability of the principal who is creative and innovative in managing the school	The purpose of this research is to obtain an overview of how the planning, organizing, implementation and evaluation of school principals in improving teacher	Concludes that the principal management has contributed positively towards the teacher performance and improved the quality of learning	The principal has implemented a management process in improving teacher performance and learning quality
13	Optimize the Role of The State	(Khofi & Santoso, 2024)	The principal of the MAN Bondowoso	Miles and Huberman's (1994) interactive	The principal of the MAN Bondowoso	The principal of MAN Bondowoso has successfully

	Islamic High School (MAN) Bondowoso Principal in Promoting Digital-Based Learning		madrasah has been able to optimize his role in supporting the digital transformation of the madrasah	model, which includes data reduction, data presentation, and drawing conclusions	madrasah has been able to optimize his role in supporting the digital transformation of the madrasah	optimized his role in supporting the school's digital transformation
14	Implementation Of Principal Academic Supervision to Improve Teacher Performance in North Bogor	(Setyaningsih & Suchyadi, 2021)	The purpose of this research was to obtain information about the implementation of academic supervision done by the headmaster in order to develop teachers' performance	Qualitative method	Implementation of the academic supervision was done on three steps were planning, implementation and evaluation	The implementation of academic supervision at the Elementary School Teacher Working Group Cluster 2 in the North Bogor District is carried out through 3 (three) stages, namely planning, implementing, and evaluating or following up on the supervision
15	The Influence of School Principal Leadership and School Organizational Climate on the Performance of Public Elementary School Teachers	(Sugiyanto et al., 2025)	Analyze the influence of school principal leadership and school organizational climate on the performance of public elementary school teachers in Singorojo District, Kendal Regency	Employed a quantitative approach with a correlational design	School principal leadership and school organizational climate significantly influence teacher performance, both partially and simultaneously	Efforts to improve the quality of education cannot be separated from the institutional context and leadership within the school environment

This review compares (He et al., 2024a) from this article on optimizing academic supervision. He et al.'s strength is its quantitative evidence establishing instructional leadership as a predictor of teacher development, validating this article's premise. This work complements this by detailing how supervision operationalizes leadership to improve performance. However, He et al. lacks granularity on specific supervisory practices, while this Scopus-indexed article fills this gap by dissecting optimization strategies. This research offers a more targeted contribution by focusing on hands on supervision approaches that directly enhance teacher performance.

The comparison of (Alwi & Mumtahana, 2023b) with this article on optimizing academic supervision. Advantages and Relevance: A significant advantage of Alwi and Mumtahana is its rich qualitative depth, capturing contextual nuances during the pandemic and the unique focus on shaping students' noble character in Islamic elementary schools. Its findings strongly affirm that the principal's strategy is "very influential" in improving teacher performance, directly supporting the core premise of this article. The study's emphasis on strategic leadership validates why this focus on "optimizing" supervision is critical for performance outcomes. Disadvantages and Differences: The primary disadvantage is its narrow contextual scope limited to Islamic schools during pandemic disruptions which may limit generalizability. Methodologically, while this Scopus indexed article likely employs rigorous, generalizable methods, Alwi and Mumtahana relies solely on qualitative interviews and observations. Key differences emerge in focus and scope. Alwi and Mumtahana examines broad principal "strategies" with a dual aim of performance improvement and character formation, whereas this work specifically targets "academic supervision" optimization for teacher performance. This article provides a more focused, optimizing academic supervision and operational framework, while their study offers broader contextual understanding of challenges and supporting factors principals face when implementing improvement strategies.

Then (Karim et al., 2021a) provide strong empirical evidence that principal supervision and teacher competence significantly affect teacher performance. However, the study only proves this influence without explaining how effective supervision is conducted. This research fills this gap by focusing on optimizing academic supervision in elementary schools, exploring specific strategies and methods to make supervision truly effective in improving teacher performance.

According to (Pisriwati et al., 2024b) in relation to this article on optimizing academic supervision. Advantages and Relevance: A key advantage of Pisriwati et al. is its comprehensive delineation of the principal's multifaceted responsibilities from planning and communication to managing facilities and finances that collectively influence teacher and staff discipline. The study's identification of discipline deficits as a primary obstacle directly supports this article's premise that targeted principal intervention is essential for performance improvement. Their finding that principals must take "appropriate action" aligns with this focus on optimizing supervision as a

strategic mechanism. Disadvantages and Relation to This Title: The primary disadvantage is its narrow focus on work discipline specifically, within a single private high school context, using purely qualitative methods. This limits applicability to elementary settings where supervision dynamics differ. While Pisriwati et al. examines broad administrative leadership for discipline, this article specifically targets “academic supervision” as a focused intervention for “teacher performance.” This Scopus-indexed work likely provides more systematic, evidence-based supervisory frameworks, whereas their study offers contextual understanding of disciplinary challenges. Both affirm that purposeful principal action drives improvement, but this article addresses the precise mechanism academic supervision that directly enhances teacher performance, filling a gap their broader leadership approach leaves unexplored.

Then (Imamah & Churrahman, 2022b) reviewed 25 articles confirming that principal academic supervision improves teacher performance and motivation, strengthening the argument for supervision’s effectiveness. However, as a literature review, it lacks direct field data and elementary school context. This article provides novelty by presenting empirical data specifically at the elementary level, focusing on how supervision can be optimized rather than merely proving its effect.

The advantage of this research is that the topic fits this focus, namely academic supervision to improve teacher performance (Khofi & Santoso, 2024). This study also details the stages of supervision from planning to evaluation, and emphasizes the importance of building togetherness between teachers. The disadvantage is that the context is limited to Islamic high schools so that it is less relevant to the elementary school environment with different characteristics. The methodology called the “Principal Role Method” is also less clear and rigorous. This article is superior because it specifically discusses the optimization of supervision at the elementary level with a more structured method, filling in the gaps that were not discussed in the study.

This study confirms that principal supervision, both academic and clinical, is an effective way to improve teacher performance (Rozi et al., 2022). These findings are particularly relevant to this focus on academic supervision, as they reinforce the argument that supervision does have a positive impact on teacher quality. Using a systematic literature review method, this study succeeded in summarizing various evidence from previous studies that support the effectiveness of supervision. The main drawback lies in the literature review method that does not present new field data, so it does not provide a concrete picture of supervision practices in a real setting. In addition, the scope is still general and does not specifically discuss certain levels of education. The difference with this title that focuses on “optimizing” academic supervision in elementary school is obvious. Rozi et al. just proved that supervision is effective in general, while this research wants to explore how to optimize it specifically at the elementary level. This article will fill in the blanks by providing practical and contextual strategies that are not found in their literature review.

This case study in elementary school provides a real picture of the principal's management from planning to supervision (Basuni et al., 2025). Its focus on improving teacher performance to optimize the quality of education is highly relevant to this research. The finding that supervision is an important part of the principal's role strengthens this argument the drawback is that this study is too broad because it discusses all management functions, not specifically academic supervision. Case studies in one school are also limited in scope. The difference is clear: Basuni et al. see supervision as one of the many duties of principals, while this research focuses on optimizing academic supervision itself. You want to explore effective supervisory strategies and techniques, not just describe them as managerial routines.

The journal article most contrary to this paper is (Karim et al., 2021a). In this research assumes that principal supervision positively influences teacher performance and seeks to optimize it, Karim et al. presents findings that directly challenge this assumption. Their quantitative study of private Madrasah Ibtidaiyah (elementary-level Islamic schools) in Pacet District revealed a surprising result: principal supervision had a negative effect on teacher performance, while teacher professional competence showed a strong positive effect. This finding contradicts the core premise of this title that optimizing academic supervision will improve teacher performance. The study suggests that in some contexts, principal supervision may actually hinder rather than enhance performance. Their significance value of confirms this negative relationship is statistically significant, not merely coincidental. This contrary evidence is valuable for this research as it highlights that supervision quality matters tremendously poorly executed supervision may be counterproductive. It reinforces why this focus on "optimizing" is essential, as ineffective supervision can potentially damage teacher performance rather than improve it. The study underscores that simply conducting supervision is insufficient; it must be done correctly to achieve positive outcomes.

D. Conclusions

This systematic review synthesized evidence from 15 peer reviewed studies to examine optimization of principal academic supervision for elementary teacher performance. The findings indicate that planned, systematic, and continuous supervision encourages improvement in teachers' pedagogic and professional competence. A collaborative and coaching approach creates positive learning environments, motivating teachers to innovate and improve instructional practices. The evidence suggests the principal's role extends beyond administration to instructional leadership that guides educator development. However, these findings represent synthesized evidence from existing research rather than definitive proof, and effect magnitudes vary across studies. Limitations, this review has several methodological constraints. First, the search was limited to three databases (Scopus, ERIC, Google Scholar) and two languages (English, Indonesian), potentially excluding relevant studies. Second, the predominance of Indonesian studies limits

generalizability to other national contexts. Third, variation in methodological approaches across studies precluded statistical meta-analysis. Fourth, publication bias may favor positive findings, though one included study reported negative effects. Fifth, as an SLR, this study does not claim primary data collection; all findings derive from existing published research. Finally, quality assessment involved subjective judgments despite using standardized tools. Implications for Practice, school principals require adequate supervisory understanding and skills through ongoing leadership training. Schools and education offices should allocate sufficient time and resources in academic schedules to ensure supervision functions as meaningful mentoring rather than administrative formality. Principals should adopt modern, dialogical supervision techniques including class visits followed by constructive feedback discussions and joint follow up planning. Implications for Policy, education authorities should design principal training programs emphasizing clinical supervision, collaborative coaching, and technology integration. Policy mandates for supervision must be accompanied by resource allocation, reduced administrative burdens, and conditions supportive of teacher development. Future Research Directions, longitudinal studies measuring long-term impacts of supervision models on student learning outcomes are needed, beyond teacher performance alone. Comparative research across different school characteristics (public vs. private, urban vs. rural) would clarify contextual factors affecting supervision effectiveness. Exploration of digital technology integration online observation platforms and electronic portfolios promises more efficient, transparent, and adaptive supervision systems.

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