

Academic Supervision by Madrasah Principals in Improving Teachers' Pedagogical Competence and Developing Students' Potential

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Article History: Received: Mei, 16 2025; Accepted: Juni, 10 2025; Published: June, 30 2025

ABSTRACT

This study investigates the implementation of academic supervision by madrasah principals to improve teachers' pedagogical competence and to support the development of students' potential. Teachers are expected to demonstrate strong pedagogical competence, and principals play a strategic role in guiding and assisting teachers through effective academic supervision. This research aims to examine how academic supervision is conducted and how it enhances teachers' competence and student development. A qualitative multi-case study approach was employed, involving observations, interviews, and document analysis in two madrasahs. The findings indicate that academic supervision is implemented through direct feedback, in-service training, recommendations for professional development programs, and the preparation of supervision reports to monitor teacher progress. However, the follow-up stage of supervision has not been optimally executed due to the lack of systematic reporting from training activities and professional discussions attended by teachers. In conclusion, although academic supervision has been carried out in a structured manner, its impact on improving pedagogical competence and developing students' potential is not yet maximal, highlighting the need for stronger follow-up mechanisms and continuous evaluation.

Keywords: *academic supervision, madrasah principal, pedagogical competence, student development, teachers*



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INTRODUCTION

Teachers in madrasahs are regarded as professionals who make a strategic contribution to human resource development by shaping learners' cognitive and socio-emotional outcomes through instructional practices. Quality educational improvement requires integrated approaches that include the substance of education, technical implementation, and management (Dacholfany et al., 2024), and effective leadership plays a crucial role in this process. Supervisory leadership by educational leaders such as madrasah principals is associated with improved professional capacities and instructional quality. Research shows that academic supervision conducted systematically enhances teachers' professional behaviours, including planning, classroom delivery, and assessment practices

(Darmayanti, 2021). Therefore, madrasah principals' ability to coordinate learning strategies and support teacher development is vital for achieving sustainable learning outcomes.

Despite the recognized importance of academic supervision, many madrasahs still face practical challenges in its implementation. Supervisory activities are often carried out administratively and focus more on compliance than on meaningful professional guidance. In several cases, supervision lacks systematic follow-up, resulting in limited impact on teachers' pedagogical improvement and classroom innovation. Studies indicate that ineffective supervision practices may reduce opportunities for reflective dialogue and collaborative problem solving between principals and teachers, which are essential for instructional improvement (Miller, 2023). As a result, the potential of academic supervision as a tool for professional development is not fully realized.

Another important issue concerns the alignment between teachers' pedagogical competence and the development of students' potential. Although supervision aims to enhance instructional quality, its direct contribution to student development is often not explicitly evaluated. Many schools focus primarily on teacher performance indicators without systematically linking them to student learning growth and holistic development. Recent research highlights that strengthening pedagogical competence through targeted supervision is closely related to improved student engagement and learning outcomes (Lorensius et al., 2022). However, empirical studies that examine this relationship comprehensively in the context of Islamic elementary education remain limited, indicating a clear need for further investigation.

Academic supervision is a central function of madrasah principals aimed at supporting teachers to address instructional challenges and improve teaching quality. Empirical evidence from recent studies confirms that academic supervision directly influences pedagogical competence and enhances instructional effectiveness (Intang & Tenri, 2024; Yani et al., 2022). In addition, the integration of feedback and follow-up mechanisms in supervision strengthens teachers' reflective practice, which in turn positively affects teaching quality. These findings align with broader research showing that structured and collaborative supervisory practices foster continuous teacher growth and improved classroom performance (Suryani et al., 2024). Consequently, academic supervision is not only a monitoring tool but also a professional development mechanism that contributes to long-term teacher capacity development and improved learner engagement.

Advances in educational technology further emphasize the importance of pedagogical competence in contemporary learning environments. Teachers need to integrate technology effectively to design meaningful, learner-centered instruction and meaningful assessment strategies (Gupta et al., 2023). Competent pedagogical practice, including ICT integration, is critical in shaping positive learning experiences and fostering student potential. However, despite an increasing body of research on academic supervision and teacher competence, many studies have been limited to single sites and focus primarily on administrative aspects. There is a research gap regarding how academic supervision practices by madrasah principals contribute holistically to both the enhancement of teachers' pedagogical competence and the development of students' potential in Islamic primary education. The limited multi-case investigations in faith-based school contexts suggest the need for further empirical inquiry.

Based on this background, the research is guided by a central research question: How does academic supervision by madrasah principals contribute to improving teachers' pedagogical competence and developing students' potential? Accordingly, this study aims to examine and analyze the implementation of academic supervision and its role in strengthening teachers' pedagogical competence and supporting student development in Islamic elementary schools.

METHODS

This study employed a qualitative research approach using a multi-case study design to explore the implementation of academic supervision and its contribution to teachers' pedagogical competence and student development. Qualitative case study research allows an in-depth investigation of contemporary phenomena within real-life contexts, particularly when the boundaries between the phenomenon and its setting are intertwined. As explained by Yin (2018), case study design is appropriate for examining complex educational practices in natural settings. A multi-case design was

selected to enable cross-case comparison and to strengthen the credibility of the findings. Data were analyzed using descriptive qualitative analysis to identify recurring patterns and themes related to supervision practices and their outcomes.

The study was conducted in two Islamic elementary schools in Wonosobo Regency, Indonesia: Madrasah Ibtidaiyah Ma'arif Budi Luhur Kertek and Madrasah Ibtidaiyah Ma'arif Bendosari Sapuran. These sites were selected purposively because they actively implement academic supervision programs and provide relevant contexts for examining supervisory practices in madrasah settings.

Data were collected through multiple techniques to ensure data richness and triangulation. First, semi-structured interviews were conducted with madrasah principals and teachers to explore their experiences and perceptions of academic supervision. Second, classroom and supervisory observations were carried out to document actual supervisory practices and teaching processes. Third, document analysis was conducted on supervision reports, lesson plans, and institutional records to support and verify interview and observation data. The use of multiple data sources follows the triangulation principle suggested by Denzin (2018), which enhances the credibility and trustworthiness of qualitative research.

Data analysis followed an interactive qualitative analysis model consisting of data condensation, data display, and conclusion drawing. This analytical framework, developed by Miles et al. (2014), involves continuously organizing and reducing raw data, presenting them in structured forms, and interpreting meanings to generate conclusions. The analysis was conducted iteratively throughout the research process, allowing emerging themes to guide further data collection. Cross-case analysis was also performed to compare findings between the two research sites and to identify common patterns and contextual differences in the implementation of academic supervision.

RESULTS AND DISCUSSION

A. Implementation of Academic Supervision by Madrasah Principals at Ma'arif Budiluhur and Ma'arif Bendosari Islamic Elementary Schools

The implementation of academic supervision in both madrasahs was carried out systematically through three interrelated stages: planning, implementation, and follow-up. The findings were derived from interviews, classroom observations, and document analysis involving the principals, vice principals for curriculum affairs, and teachers. The data were analyzed descriptively to obtain a comprehensive understanding of how supervisory practices were designed and enacted in each institution.

In the planning stage, the principal assumes a central role as academic supervisor who is responsible for designing, organizing, and preparing supervision activities. Planning is considered a fundamental step to ensure that supervision is conducted in a structured, measurable, and purposeful manner. The primary objective is to provide professional assistance to teachers in improving instructional quality and strengthening pedagogical competence. Key elements of planning include the formulation of supervision programs, preparation of instruments, and arrangement of supervision schedules.

At Ma'arif Budiluhur Islamic Elementary School, academic supervision is positioned as a strategic program aimed at enhancing teachers' instructional performance and professional competence. Based on interview findings, supervision is planned at the beginning of each academic year during the annual work meeting and is implemented each semester as part of continuous monitoring of teachers' development. The principal communicates the importance of supervision and distributes the supervision schedule to all teachers. Documentation shows that supervision planning is integrated into the madrasah's annual work program. Teachers are required to submit instructional documents, such as syllabi and lesson plans, through a shared digital platform to facilitate review. The principal prepares supervision instruments determined by the madrasah supervisor to evaluate teachers' instructional practices. These instruments function as structured guidelines for observing classroom teaching and assessing professional responsibilities.

Similarly, at Ma'arif Bendosari Islamic Elementary School, academic supervision is conducted annually as a structured effort to strengthen pedagogical competence and improve instructional

quality. The principal emphasized that supervision serves as an effective mechanism for supporting teachers' professional growth rather than merely functioning as an evaluative activity. Planning follows established Standard Operating Procedures (SOP) to ensure systematic implementation. Various instruments are prepared, including pre-supervision forms, lesson plan review sheets, post-supervision reflection forms, and teacher performance records. These instruments are developed collaboratively by the madrasah supervisor and the internal supervisory team. Before classroom observation, the principal conducts preliminary interviews with teachers to assess their readiness and reviews lesson plans to identify specific aspects that require attention. Teachers also complete pre-supervision forms to support the observation process and clarify instructional objectives.

The implementation stage represents the core of the supervision process and focuses on improving instructional competence through structured classroom engagement. In both institutions, supervision is conducted through pre-observation meetings, classroom observation, and post-observation feedback sessions, although the approaches vary slightly according to institutional culture and leadership style.

At Ma'arif Budiluhur, the pre-observation phase begins with coordination between the principal and the supervisory team to determine supervision approaches, techniques, and instruments. These are then re-communicated to teachers through group meetings. During this stage, teachers are given time to prepare instructional materials, and collaborative discussions are held to review lesson plans and determine specific supervision focuses. During classroom observation, the supervisor monitors the entire instructional process—from introductory activities to core learning activities and lesson closure—using standardized instruments. The purpose of observation is to identify strengths, instructional challenges, areas for improvement, and teachers' professional needs. The supervisory team subsequently compiles summaries and analyses of lesson planning, teaching implementation, and assessment practices. These findings form the basis for targeted professional development programs. The post-observation phase involves a feedback meeting in which the principal engages in constructive dialogue with the teacher. Together, they reflect on the observation results and agree on concrete improvement strategies to enhance instructional effectiveness.

At Ma'arif Bendosari, supervision is also initiated at the beginning of the academic year and formally announced by the principal along with the supervisory team, which includes the vice principal for curriculum and senior teachers. The pre-observation stage emphasizes an individual conference approach, where teachers are invited individually to discuss instructional preparation and supervision focus areas. The principal informs teachers of the aspects to be observed and collaboratively determines priority areas for improvement. Classroom observations are conducted both according to schedule and, when necessary, through unannounced visits to capture authentic instructional practices. The principal applies classroom visitation techniques combined with a mentoring model known as "Mentor and Mentee" or intervisitation, allowing teachers to observe peers' instruction and exchange professional insights. During observation, the supervisory team documents teachers' strengths and weaknesses and prepares analytical summaries of instructional planning, implementation, and assessment. The post-observation stage consists of individual feedback meetings between the principal and teachers. These sessions function as professional counseling opportunities in which instructional improvements are discussed and teachers' professionalism is reinforced. The individualized approach enables tailored guidance that aligns with each teacher's specific needs and developmental trajectory.

At the follow-up stage, academic supervision becomes a crucial phase that determines the overall effectiveness of the supervision process. Supervision does not end with observation and assessment activities; rather, it must be continued through systematic improvement measures oriented toward enhancing the quality of instruction. In this context, the madrasah principal acts as an instructional leader who ensures that every supervisory finding is transformed into concrete strategies for teachers' professional development. Follow-up actions are carried out based on the identification of strengths and weaknesses in instructional practices, making them contextual and grounded in teachers' actual needs.

The initial step in the follow-up process involves reflection and the provision of individualized feedback. The principal discusses the results of classroom observations with teachers in a dialogical

and constructive atmosphere. This approach does not position teachers merely as objects of evaluation, but as partners in the effort to improve instructional quality. Through collaborative reflection, teachers gain awareness of pedagogical practices that have been effective as well as aspects that still require development. This process simultaneously fosters a reflective culture and strengthens commitment to continuous professional growth.

Subsequently, the principal designs professional development programs based on the findings of supervision. These programs may include internal training sessions, thematic workshops, lesson study activities, peer supervision, and the reinforcement of differentiated instruction strategies and authentic assessment practices. Professional development initiatives are not designed uniformly; instead, they are tailored to the specific needs and characteristics of individual teachers. This needs-based approach enables pedagogical competence to improve more effectively and sustainably. Furthermore, strengthening teachers' learning communities constitutes an essential component of supervisory follow-up. Through collaborative forums, teachers can share best practices, discuss instructional challenges, and jointly design innovations, thereby cultivating a collective and supportive academic culture.

Academic supervision follow-up also requires periodic monitoring and evaluation to ensure that the interventions implemented genuinely impact instructional practices. The principal conducts follow-up observations, reviews instructional documents, and analyzes students' learning progress. This evaluation functions both as a control mechanism and as a foundation for continuous improvement. Consequently, supervisory follow-up is not incidental in nature but becomes part of an ongoing quality enhancement cycle.

Ultimately, the effectiveness of academic supervision follow-up is reflected in the improvement of instructional quality and the optimal development of students' potential. Teachers who receive systematic guidance and professional reinforcement are more likely to implement student-centered learning, adapt instruction to diverse learning needs, and encourage active student engagement. Therefore, academic supervision follow-up serves not only as an instrument for enhancing teachers' pedagogical competence but also as a strategic mechanism for fostering students' academic, social, and character development in a sustainable manner.

B. Improvement of Teachers' Pedagogical Competence through Academic Supervision

The findings demonstrate that academic supervision conducted by the principals at Madrasah Ibtidaiyah Ma'arif Budiluhur Kertek and Madrasah Ibtidaiyah Ma'arif Bendosari Sapuran has contributed to observable improvements in teachers' pedagogical competence. Teachers showed enhanced capacity in lesson planning, instructional strategy development, classroom management, and authentic assessment practices. These findings support recent studies indicating that structured and reflective supervision significantly influences teachers' instructional quality and professional growth (Dewi, 2021). Academic supervision, when positioned as developmental rather than merely evaluative, strengthens teachers' pedagogical skills and promotes sustainable instructional improvement (Paring, 2024).

The structured supervision planning observed in both madrasahs aligns with instructional leadership theory, which emphasizes the principal's central role in improving teaching and learning processes (Leithwood et al., 2020). The principals' involvement in preparing supervision programs, setting schedules, and developing supervision instruments reflects the dimensions of defining school mission and managing instructional programs. Empirical evidence confirms that principals who actively engage in instructional supervision significantly affect classroom practices and student achievement outcomes (Liu & Hallinger, 2018). Thus, the systematic planning stage identified in this study reinforces theoretical assumptions that instructional leadership is a key determinant of pedagogical improvement.

The dual focus of supervision—covering both administrative preparedness and classroom instructional implementation—corresponds with contemporary pedagogical competence frameworks. Effective supervision must examine teachers' planning documents (e.g., lesson plans and assessment instruments) alongside real-time classroom performance to ensure alignment between planning and execution (Binmohsen & Abrahams, 2020). The use of pre-observation review and classroom

observation in both institutions reflects the clinical supervision model, which emphasizes pre-conference, observation, and feedback cycles as mechanisms for instructional enhancement. Research over the past five years confirms that structured supervision cycles foster reflective teaching practices and lead to measurable pedagogical improvement.

Furthermore, the inclusive supervision approach targeting all teachers—including general and religious subject teachers—demonstrates alignment with capacity-building and distributed leadership theories. Sustainable school improvement requires collective professional learning rather than selective intervention (Leithwood et al., 2020). By involving vice principals and senior teachers in supervisory processes, both madrasahs practice distributed instructional leadership, which has been shown to enhance organizational resilience and professional collaboration. This collaborative supervision model strengthens institutional capacity and supports continuous professional development (Prasetia et al., 2022; Scott et al., 2023).

The follow-up phase emerges as a decisive factor in translating supervision findings into professional growth. The principals' use of individualized feedback, coaching, and direct mentoring aligns with transformative and developmental supervision models (Darling-Hammond et al., 2020). Empirical studies indicate that feedback-oriented supervision enhances teacher self-efficacy and encourages adaptive, student-centered instructional practices (Kraft & Papay, 2014). Teachers who receive systematic coaching are more likely to implement differentiated instruction, promote active student engagement, and respond effectively to diverse learning needs. The findings of this study confirm that structured follow-up supervision contributes not only to improved pedagogical competence but also to more responsive and learner-centered teaching practices.

However, the study also identifies contextual constraints, particularly the principals' extensive managerial workload, which occasionally affects supervision scheduling. This challenge is consistent with organizational leadership literature highlighting role overload as a barrier to sustained instructional focus (Liu & Hallinger, 2018). Nevertheless, the adoption of collaborative supervisory teams mitigates this limitation and reflects adaptive leadership strategies that maintain supervision continuity.

Overall, the integrated findings substantiate theoretical and empirical arguments that academic supervision, when implemented systematically, collaboratively, and reflectively, significantly enhances teachers' pedagogical competence. By embedding supervision within an instructional leadership framework and ensuring structured follow-up mechanisms, madrasah principals create conditions conducive to continuous professional learning and sustainable improvement in educational quality.

C. Enhancing Students' Potential through Academic Supervision

The findings indicate that the academic supervision conducted by the principals of Madrasah Ibtidaiyah Ma'arif Budiluhur Kertek and Madrasah Ibtidaiyah Ma'arif Bendosari Sapuran contributes not only to improving teachers' pedagogical competence but also to fostering students' potential development. Both madrasahs demonstrate similar approaches in identifying and nurturing students' abilities, primarily through systematic documentation reviewed during the supervision process. The principals examine teachers' administrative records, including student development journals, academic and non-academic achievement records, and student potential tracking books. This practice reflects data-informed leadership, where supervisory findings are used to map students' strengths and areas for growth. Contemporary research emphasizes that school leaders who utilize instructional data strategically can positively influence student development outcomes (Liu & Hallinger, 2018).

The supervision results reveal that student potential development is supported through several interconnected strategies. First, providing personal attention to students is considered fundamental in motivating learning. Principals and teachers intentionally create supportive environments by offering encouragement and, when necessary, allocating time outside formal instructional hours to listen to students' concerns. This approach aligns with socio-emotional learning (SEL) theory, which highlights the importance of supportive teacher–student relationships in enhancing academic engagement and motivation (Darling-Hammond et al., 2020). Empirical studies confirm that students who perceive strong relational support from educators demonstrate higher levels of intrinsic motivation and academic persistence (Kraft & Papay, 2014).

Second, the development of students' talents and interests is strengthened through effective collaboration with parents. Both madrasahs emphasize building constructive communication and partnerships with families to ensure consistent support for students' learning both at school and at home. This strategy is consistent with ecological systems theory, which posits that children's development is influenced by interactions between school and family environments. Recent research underscores that strong school–family partnerships significantly contribute to improved academic achievement and socio-emotional growth. By integrating parents into the supervision-informed development process, the madrasahs extend instructional leadership beyond classroom boundaries.

Third, teachers play a pivotal role in stimulating students' learning enthusiasm. As classroom facilitators and homeroom teachers, they are responsible for translating supervision feedback into more engaging, student-centered instructional practices. This finding reinforces the assumption that effective instructional leadership indirectly impacts students through improved teaching quality (Leithwood et al., 2020). When teachers implement differentiated instruction and varied learning strategies—as encouraged through supervision—students are more likely to experience meaningful learning opportunities that nurture their academic and non-academic talents (Darling-Hammond et al., 2020).

Fourth, understanding students' family backgrounds is recognized as an important component of potential development. Educators in both madrasahs acknowledge the need to understand students' home environments, parental educational backgrounds, and the level of support provided at home. This contextual awareness enables teachers to design responsive instructional strategies and provide targeted support. Such practices correspond with culturally responsive pedagogy and equity-based leadership approaches, which emphasize adapting educational interventions to students' socio-cultural contexts. Research over the past five years confirms that context-sensitive instructional practices enhance student engagement and reduce learning disparities (Liu & Hallinger, 2018).

Overall, the findings demonstrate that academic supervision, when extended beyond teacher evaluation to encompass student development analysis, becomes a strategic mechanism for optimizing learners' academic, social, and character potential. By integrating documentation review, relational support, parental collaboration, instructional improvement, and contextual awareness, the madrasah principals enact a holistic instructional leadership model. This integrated approach substantiates contemporary leadership theories asserting that effective school supervision contributes not only to teacher competence but also to comprehensive student development outcomes.

CONCLUSION

This study demonstrates that academic supervision conducted by the principals of Madrasah Ibtidaiyah Ma'arif Budiluhur Kertek and Madrasah Ibtidaiyah Ma'arif Bendosari Sapuran is implemented systematically through the stages of planning, implementation, and follow-up, and plays a significant role in enhancing teachers' pedagogical competence and fostering students' potential. Supervision is not merely administrative or evaluative in nature but functions as a developmental process grounded in instructional leadership principles. The findings reveal that structured supervision planning, classroom-based observation, constructive feedback, and needs-based professional development contribute to measurable improvements in teachers' instructional planning, classroom management, use of learning media, and implementation of student-centered strategies. Furthermore, the follow-up phase—through coaching, mentoring, and reflective dialogue—ensures that supervision findings are translated into sustainable professional growth. Beyond teacher competence, academic supervision also supports student potential development. Through systematic documentation review, relational support, collaboration with parents, and context-sensitive instructional adjustments, supervision contributes to improved student engagement, motivation, and academic as well as non-academic achievement. Although challenges such as principals' workload constraints were identified, collaborative supervisory practices help maintain continuity and effectiveness. Overall, academic supervision serves as a strategic instrument for continuous quality improvement in madrasah education.

Based on the findings, several recommendations are proposed: First, madrasah principals should strengthen the institutionalization of supervision cycles by ensuring consistency in scheduling,

documentation, and follow-up mechanisms. Developing a digital supervision management system may help address time constraints and improve monitoring efficiency. Second, supervision should increasingly adopt a coaching-oriented and reflective approach rather than a compliance-based model. Continuous professional development programs: such as lesson study, peer supervision, and thematic workshops—should be aligned with supervision findings to ensure needs-based improvement. Third, distributed instructional leadership should be reinforced by empowering vice principals and senior teachers as supervisory partners. This approach can reduce workload pressures on principals while sustaining instructional focus. Fourth, the integration of student development data into supervision practices should be strengthened. Madrasahs are encouraged to develop comprehensive student profiling systems that link supervision outcomes with strategies for nurturing academic, social, and character development. Finally, policymakers and madrasah supervisors should provide structured training for principals in instructional leadership and clinical supervision models to enhance supervisory competence. Strengthening leadership capacity will ensure that academic supervision becomes a transformative mechanism for improving teacher professionalism and optimizing student potential in a sustainable manner.

CONFLICT OF INTEREST

The authors confirm that they have no conflicts of interest related to the publication of this study. They have no financial, personal, or professional interests that could be perceived as influencing the research outcomes or interpretations presented in this publication.

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