ISSN 2776-5229

Mechanism for Utilizing Academic Supervision Findings in Setting Priorities and Evaluating Follow-Up Actions for Instructional Improvement in Madrasah

Akrom Tegar Khomeiny[1*], Muhammad Alvin Fawzi[2], Rohani[3], and Try Heni Aprilia[4]
[1,2,3,4]Universitas Islam Negeri Syekh Wasil Kediri, Indonesia
*akromtegarkhomeiny@gmail.com

ARTICLE INFO

Article history
Received September 28, 2026
Revised October 27, 2026
Accepted November 19, 2026

Keywords: Academic Supervision, Supervision Findings, Improvement Priorities, Follow-Up, Madrasah

ABSTRACT

Academic supervision supports instructional quality through observation, feedback, guidance, and evaluation. However, its findings are not always systematically used to determine improvement priorities and follow-up actions. This study examines how supervision findings guide instructional improvement in madrasah. A Systematic Literature Review guided by PRISMA 2020 principles searched Scopus and Google Scholar for publications from 2016 to 2026. Of 62 identified sources, 59 were accessible and screened, and 22 met the inclusion criteria. Articles addressing academic or instructional supervision, teacher development, supervision findings, feedback, coaching, follow-up, or instructional improvement were included; irrelevant, duplicate, inaccessible, and bibliographically unverifiable sources were excluded. Data were extracted using a literature matrix and analyzed thematically to identify patterns in supervision practices, interpretation, priority setting, follow-up, and evaluation. The analysis produced six stages: collection, interpretation and diagnosis, priority setting, follow-up planning, implementation of improvement actions, and evaluation and reflection. The model's conceptual contribution is to position priority setting as an explicit decision-making stage, align follow-up with diagnosed teacher needs, and use evaluation to guide subsequent improvement. The model offers a conceptual framework for madrasah supervision, but its applicability and effectiveness require empirical testing.

1. INTRODUCTION

Academic supervision is an important instrument for teachers' professional development and the improvement of instructional quality because it provides opportunities for observation, feedback, guidance, and evaluation of classroom teaching practices (Sahaludin, Wahyudin, & Gunawan, 2023). In madrasah education, academic supervision holds a strategic position because instructional quality depends not only on teachers' ability to deliver subject matter but also on lesson planning, classroom management, the selection of instructional strategies, the use of learning media, and the assessment of learning outcomes (Zaidan, Andriani, Azzahra, & Wiranata, 2021). Therefore, academic supervision should be understood as a professional process intended to help teachers develop their competencies and improve instructional practices, rather than merely an administrative inspection or institutional obligation (Azhar, Nurman, & Azhar, 2021). Through systematic observation and information gathering, supervisors can obtain an accurate picture of classroom conditions, including practices that are effective and those that require improvement (Darlis, 2020). Such information is important because decisions about professional guidance based solely on assumptions or general judgments may not correspond to teachers' actual needs. Academic supervision findings may cover various aspects, including discrepancies between lesson planning and implementation, inadequate student engagement, limited variety in teaching methods, classroom management difficulties, and teachers' limitations in conducting learning assessments (Fauziah, Zainuddin, Muhajir, &

Sopwandin, 2020). The diversity of these findings indicates that academic supervision generates complex information that cannot always be addressed through the same guidance approach. Each issue has different characteristics, levels of urgency, and potential effects on the learning process. Therefore, supervisors' ability to interpret findings is a key factor in determining the usefulness of academic supervision. Supervision findings should not stop at documenting teachers' shortcomings; instead, they should be developed into information that can be used to understand the causes of problems, identify professional development needs, and design relevant improvement actions (Hamid & Ma'arif, 2019). From an educational management perspective, this process involves using information as a basis for decision-making, giving academic supervision a broader function than merely evaluating teacher performance. Information obtained through supervision can help supervisors and madrasah principals plan professional development programs, identify training needs, develop collaborative activities among teachers, and direct institutional support toward instructional issues requiring attention. The use of supervision findings is also associated with a madrasah's ability to foster a culture of reflection and continuous improvement, in which evaluation results are consistently used to improve educational practices. In this process, supervisors act not only as problem identifiers but also as facilitators who help teachers understand issues and determine possible solutions. A professional relationship between supervisors and teachers is essential so that supervision findings are received as constructive feedback rather than punitive evaluation. Thus, effective academic supervision requires a connection between observation, interpretation of findings, decision-making, and professional guidance. This connection provides the basis for understanding how supervision findings can be systematically used to determine instructional improvement priorities in madrasah.

Using academic supervision findings to set improvement priorities is important because madrasahs face diverse instructional needs that cannot always be addressed simultaneously. The problems identified in one teacher's practice may differ from those of another, while supervisors face limitations in time, resources, mentoring opportunities, and institutional support. These conditions require a prioritization mechanism so that supervision follow-up is not applied uniformly but is directed toward the most urgent issues with the greatest influence on instructional quality (Hasanah & Kristiawan, 2019). Priority setting can be understood as selecting and ranking improvement needs based on considerations such as competency gaps, problem urgency, frequency, impact on students, and the likelihood that the issue can be addressed through professional guidance. Not all supervision findings therefore require the same intervention or level of support. Findings directly related to the achievement of learning objectives and student engagement may require more immediate attention than administrative issues that do not directly impede learning. Appropriate prioritization enables supervisors to allocate professional development resources more effectively and ensure that teachers' needs receive attention in accordance with their importance (Iskandar, 2020). In addition, priority setting should take into account the madrasah context, teacher characteristics, student conditions, the availability of learning facilities, and applicable education policies. This approach is important to avoid decisions based solely on general standards without considering actual conditions in the field. Academic supervision oriented toward teachers' needs should also promote communication and collaboration between supervisors and supervisees so that priorities are not determined unilaterally (Latief & Masruroh, 2017). Once priorities have been established, the next step is to translate supervision findings into clear, measurable, and problem-appropriate follow-up plans. Follow-up may take the form of coaching, mentoring, reflective discussion, training, individual assistance, repeat observation, or sharing good practices among teachers. The choice of follow-up should be based on the relationship between the identified problem and the action expected to address it. For example, difficulties in preparing instructional materials may be addressed through planning support, whereas classroom management difficulties may require coaching, observation of practice, and joint

reflection (Munawar, 2019). Research on coaching and feedback indicates that focused professional support can help teachers reflect on their teaching practices and develop more effective instructional strategies (Mustaqim, Fahmi, & Setiyaningsih, 2020). However, supervision follow-up should not be limited to scheduling professional development activities or establishing a program timetable. Improvement actions need clear objectives, success indicators, responsible parties, and a timeline that enables systematic monitoring. Without such clarity, follow-up may become an administrative activity with little connection to the initial problem. Supervisors should also involve teachers in determining improvement strategies so that teachers understand and commit to the expected changes. Follow-up implementation also requires support from the madrasah principal and a work environment that enables teachers to apply what they have learned in classroom practice. Thus, utilizing supervision findings involves not only identifying problems to be addressed but also translating decisions into relevant and feasible professional actions.

Follow-up evaluation is essential to using academic supervision findings because it helps supervisors determine whether the improvement actions taken have actually addressed the instructional problems identified earlier. Evaluation should not focus solely on whether activities have been completed, such as teachers' attendance at training or the completion of a professional development program, but should also consider changes in instructional practice after follow-up (Mustofa, Trisnamansyah, Mulyanto, & Insan, 2021). Accordingly, follow-up evaluation assesses the alignment among initial findings, the improvement priorities established, the professional guidance provided, and the changes observed in learning. Evaluation may be conducted through repeat observations, reflective discussions, reviews of instructional materials, analysis of teaching practices, and the collection of information about teachers' progress. The results can be used to determine whether the problem has improved, whether the action should be continued, or whether a different guidance strategy is needed (Nuryani et al., 2022). Evaluation also provides supervisors with feedback on the effectiveness of their decisions, allowing supervision to be developed based on previous experiences and outcomes. In madrasah, follow-up evaluation should recognize that changes in instructional practice do not always occur immediately after a single professional development activity. Some issues require repeated mentoring, opportunities for practice, reflection, and workplace support for changes to become consistent. Academic supervision should therefore be viewed as an ongoing process connecting problem identification, priority setting, professional guidance, outcome evaluation, and adjustment of subsequent actions. Previous studies have examined academic supervision from several complementary perspectives. Research on academic supervision in madrasah has discussed supervision implementation, teacher performance, and professional development (Subaidi, Sutain, & S. Subaidi, 2019). Research on academic supervision in early childhood education has also examined its relationship with teacher performance during the COVID-19 pandemic (Syam, 2021). Studies on educational data use have emphasized the importance of analyzing information and developing teachers' capacity to use data for instructional decision-making (Ansyari, Groot, & Witte, 2020). Meanwhile, research on feedback has highlighted its role in helping teachers understand their instructional performance and identify areas requiring improvement (Hattie & Timperley, 2007). Other studies have examined the relationship between academic supervision activities and the quality of learning processes and outcomes in madrasah (Mustofa et al., 2021). Although these studies provide important insights into academic supervision and instructional improvement, they address different aspects of the improvement process. Research on academic supervision explains the implementation of observation, guidance, and professional development, while data-use studies emphasize the analysis of information before decisions are made. Studies on feedback explain how teachers can

receive information to improve their instructional practices, whereas evaluation studies examine the implementation and outcomes of improvement activities. However, the relationship among these components requires further conceptual integration, particularly in explaining how supervision findings are interpreted, translated into improvement priorities, connected to appropriate follow-up actions, and evaluated to determine subsequent interventions. This issue is particularly relevant to madrasah, where supervisors and teachers must address diverse instructional problems while considering teachers' competencies, students' learning needs, and institutional resources. Without a clear mechanism connecting these stages, supervision findings may not be translated into appropriately prioritized improvement actions, while follow-up activities may not be systematically evaluated. Consequently, the use of academic supervision findings needs to be understood not merely as the documentation of teachers' performance, but as a basis for making instructional improvement decisions in a continuous process. In response to this research gap, this study employs a Systematic Literature Review (SLR) to examine and integrate previous research on the utilization of academic supervision findings for setting improvement priorities and evaluating follow-up actions in madrasah. Specifically, this study aims to develop a conceptual model that connects the collection and interpretation of supervision findings, priority setting, follow-up planning, implementation of improvement actions, and evaluation and reflection. The proposed model is expected to clarify the relationships among these stages and provide a conceptual foundation for more systematic, needs-based, and continuous instructional improvement in madrasah.

2. METHODS

The implementation and reporting of this Systematic Literature Review (SLR) adapt the principles outlined in the PRISMA 2020 guidelines, particularly those concerning transparency in literature searching, selection, and reporting (Page, 2021). PRISMA is used as a guideline for reporting the review process rather than as an independent analytical method. This study employs an SLR to systematically identify, select, evaluate, and analyze scholarly publications related to the mechanism for utilizing academic supervision findings to establish priorities and evaluate follow-up actions for instructional improvement in madrasahs. The SLR approach was selected because it enables the development of a structured, transparent, and traceable review through systematic literature search and selection procedures (Bearman et al., 2012). The review process comprises defining the research focus, searching the literature, establishing eligibility criteria, selecting sources, extracting data, and analyzing and synthesizing the findings. The review focuses on how academic supervision findings are used as a basis for decision-making, how instructional improvement priorities are determined, how follow-up guidance is implemented, and how the effectiveness of such follow-up actions is evaluated in madrasah settings.

Literature Search Strategy

The literature search was conducted using two databases: Scopus and Google Scholar. The search covered publications from 2016 to 2026. Publications issued before 2016 were considered selectively when required to establish the study's core theoretical foundations. The search strategy was developed based on the research questions and the key concepts underpinning the review, ensuring that the search was not limited to a single term or one way of referring to the topic (Xiao & Watson, 2019). The sources included national and international scholarly publications addressing academic supervision, instructional supervision, teacher professional development, instructional feedback, coaching, supervision evaluation, and follow-up actions for instructional improvement. The keywords included "supervisi akademik," "supervisi pembelajaran," "temuan supervisi," "tindak lanjut supervisi," "evaluasi supervisi akademik," "prioritas pembinaan guru," "academic supervision," "instructional supervision," "supervision findings," "instructional feedback," "teacher

coaching," and "follow-up evaluation." These keywords were used individually and in combination to retrieve publications directly or conceptually related to the research questions. The search considered general education, Islamic education, madrasahs, and other educational institutions relevant to academic supervision practices. International literature was also considered when it contributed to an understanding of instructional observation, professional feedback, coaching, and the evaluation of changes in teachers' practices. Source metadata were checked up to 25 October 2026. The initial reference pool consisted of 62 sources. An accessibility check was then conducted, resulting in 59 sources that were available for further examination. These sources constituted the pool of articles for the subsequent selection stage. The search strategy and retrieved sources were documented to support the transparency and traceability of the review process (Page, 2021).

Inclusion and Exclusion Criteria

The inclusion criteria were established to ensure that the literature analyzed had a substantive connection to the research objectives. Defining eligibility criteria is an essential component of an SLR because it helps restrict the sources to those relevant to the research questions and reduces subjective literature selection (Bearman et al., 2012). Publications were included if they met the following criteria: (1) they discussed academic supervision, instructional supervision, or educational supervision related to teachers' professional development; (2) they examined instructional observation, supervision findings, feedback, coaching, professional guidance, or supervision follow-up; (3) they addressed the identification of improvement needs, the evaluation of supervision programs, or the improvement of instructional practices; (4) they provided verifiable bibliographic information; and (5) they were available in an accessible text format suitable for analysis. Publications focusing on madrasahs and Islamic education received particular attention because of their relevance to the research context. The exclusion criteria were applied to publications that did not substantively address academic or instructional supervision; sources that merely mentioned supervision without providing information relevant to the research focus; publications that were not sufficiently accessible; and sources whose bibliographic information could not be verified. Duplicate publications were also excluded to prevent the same source from being counted more than once. Studies on managerial supervision could be considered when they made a direct contribution to understanding decision-making, the management of professional guidance, or the evaluation of instructional follow-up. These criteria were applied consistently throughout the literature screening process to ensure that the selected sources remained aligned with the review focus (Xiao & Watson, 2019).

Study Selection and Data Extraction

The literature selection process was conducted in stages. The first stage involved independently checking for duplicates and screening the titles and abstracts (initial screening) of the 59 accessible articles. At this stage, 40 articles were considered eligible for full-text assessment. The next stage involved an in-depth examination of the full texts against the established inclusion and exclusion criteria. During the eligibility assessment, 18 articles were excluded because they did not provide specific data or did not address the research questions. Consequently, 22 final articles (primary studies) met the selection and quality assessment criteria. The literature selection process, including the identification, screening, eligibility assessment, and final inclusion of studies, is summarized in Figure 1.

ISSN 2776-5229

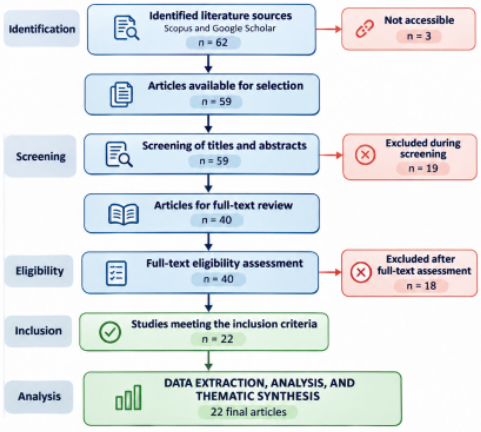


Figure 1. Literature Selection Flow Diagram

The quality of the literature was assessed for articles that had passed the full-text screening stage. The assessment considered each article's alignment with the research focus, clarity of research objectives, appropriateness of the methods used, clarity in the presentation of results, and relevance of its findings to the mechanism for utilizing academic supervision findings to establish priorities and evaluate follow-up actions for instructional improvement in madrasahs. Articles that lacked substantive relevance to the review focus or did not provide adequate methodological information and findings were not retained as primary sources for the analysis. The results of this quality and relevance assessment informed the selection of articles used as the main sources for the review. Data were extracted, analyzed, and synthesized only from the 22 final articles in the Results and Discussion section to address the research questions. Articles that did not pass the final selection stage but offered relevant theoretical foundations were retained as supporting references rather than treated as primary studies in the analysis. Screening titles, abstracts, and full texts helped ensure that the selected publications were relevant to the research questions (Page, 2021). Data from each publication that met the criteria were extracted using a literature matrix. The recorded information included the authors' names, year of publication, research title, research context or location, research objectives, methods used, academic supervision focus, main findings, forms of follow-up action, and reported evaluation mechanisms. Data extraction was conducted systematically to facilitate comparisons across publications and maintain consistency in the information used for analysis (Bearman et al., 2012). The matrix was also used to organize the literature by theme, ensuring that the analysis focused not merely on the chronological order of publications but on each source's substantive contribution to the academic supervision mechanism.

Literature Analysis and Synthesis

The analysis involved a thematic synthesis of the publications that met the selection criteria. Thematic synthesis was used to identify patterns, similarities, differences, and conceptual relationships among the research findings, enabling the review to move beyond descriptive summaries of individual articles (Chong, Lin, & Chen, 2021). The analysis focused on four main aspects: the utilization of supervision findings, the prioritization of improvement needs, the implementation of follow-up actions, and the evaluation of follow-up effectiveness. These four aspects served as the initial analytical framework, while allowing additional themes to emerge when relevant patterns were identified in the reviewed publications. For the theme concerning the utilization of supervision findings, the analysis examined how supervisors interpret observation results and use them as a basis for decision-making. For the priority-setting theme, the analysis explored the considerations used to determine which instructional problems should be addressed first. The follow-up theme focused on the forms of professional guidance provided and their alignment with teachers' needs. The evaluation theme, meanwhile, examined how changes in instructional practices were assessed and how evaluation results were used to determine subsequent actions. The

findings were then integrated to develop an understanding of the relationships among the stages of academic supervision. The final synthesis is presented in the form of a thematic narrative and a conceptual framework. The presentation connects findings from various publications rather than merely summarizing studies one by one. The conceptual framework was developed to illustrate the mechanism for utilizing academic supervision findings, from problem identification and priority setting to follow-up planning, the implementation of professional guidance, evaluation of outcomes, and the determination of subsequent improvement actions. This synthesis approach enables the study to identify recurring patterns in the mechanisms reported in the literature while also highlighting research gaps that warrant further investigation in madrasah settings (Chong et al., 2021).

3. RESULTS AND DISCUSSION

RESULTS

3.1 Characteristics of the Reviewed Literature

The review indicates that academic supervision and instructional improvement are closely related. Some studies frame supervision as a process of teacher guidance through planning, observation, feedback, and follow-up. Other studies emphasize using educational data to identify problems and determine improvement actions (Fanani & Wahyono, 2021). These different emphases help provide a broader understanding of academic supervision, particularly as a source of information for decision-making. Academic supervision in madrasahs generally aims to improve teacher competence and instructional quality. It is conducted by madrasah principals and supervisors through observation and professional guidance (Haryanto, 2024). Supervision may also use clinical and coaching approaches to help teachers evaluate their teaching and identify their professional development needs (Munasir, Ilyas, & Erihadiana, 2024). The use of educational data does not always lead to appropriate decisions. Data must be understood, analyzed, and linked to instructional problems before they inform improvement actions (Mandinach & Gummer, 2016). This requires data-processing skills, organizational support, and collaboration between teachers and supervisors (Mandinach & Schildkamp, 2021). To provide a clearer overview of the literature reviewed, the main findings of the selected studies were grouped into several themes related to the utilization of academic supervision findings. The grouping highlights the contributions of the studies to understanding supervision practices, data interpretation, priority setting, follow-up actions, and evaluation for instructional improvement, as summarized in Table 1.

Table 1. Synthesis of Reviewed Literature

Authors	Main Findings
Fanani and Wahyono; Ansori and Nugraha; Roziqin et al.; Nasution et al.; Haryanto; Munasir et al.; Rezeki et al.; Suwarno et al.; Afaidi et al.	Academic supervision generates information about teachers' instructional practices through classroom observation, document review, evaluation, and professional guidance. These activities help identify instructional problems and teachers' competency development needs.
Alonzo et al.; Gasse and Mol; Mandinach and Gummer; Mandinach and Schildkamp; Rahmawati	Educational data need to be interpreted and analyzed before being used for decision-making. Data literacy, collaboration, and institutional support are essential for translating supervision findings into relevant instructional decisions.
Anderson et al.; Rahmawati; Mandinach and Schildkamp	Improvement priorities should be determined through systematic problem identification and consideration of urgency, impact on students, available resources, and the feasibility of improvement actions.
Afaidi et al.; Hidayati; Izzati et al.; Hattie and Timperley; White and Maher; Ansyari et al.; Spiele et al.	Supervision follow-up through coaching, constructive feedback, reflective dialogue, and professional development helps teachers identify instructional weaknesses, improve teaching practices, and develop professional competence.

Wulandari and Hanafiyah; Anderson et al.; Spiele et al.	Evaluation should examine the implementation and outcomes of improvement actions. Evaluation findings provide a basis for refining interventions and supporting continuous improvement in instructional practices.

3.2 Key Findings

The literature indicates that the use of academic supervision findings encompasses five interrelated themes, as shown in Table 1. These themes include conducting supervision, interpreting findings, setting priorities, implementing improvement follow-up, and evaluating outcomes to sustain change.

Table 2. Key Findings

Theme	Focus of Findings in the Literature	Implications for the Study
Implementation of academic supervision	Planning, observation, review of instructional practices, and guidance	Supervision generates information about instructional practices
Use of findings and data	Interpretation of observation results and instructional data	Findings need to be analyzed before being used as a basis for decision-making
Setting improvement priorities	Identification of problems, teachers' needs, and instructional aspects requiring improvement	Findings need to be selected based on their urgency and impact
Supervision follow-up	Coaching, feedback, training, reflection, and professional guidance	Improvement actions need to be tailored to teachers' needs
Evaluation and continuous improvement	Monitoring, evaluation of changes, and program adjustment	Evaluation serves as the basis for the next supervision cycle

3.3 Academic Supervision as a Source of Information for Instructional Improvement

Academic supervision helps supervisors understand classroom learning through teaching observations, reviews of instructional materials, teacher–student interactions, and learning evaluation. In madrasah, these activities are used to identify areas needing improvement and to determine teachers' competency development needs (Fanani & Wahyono, 2021). Direct observation provides an accurate picture of instructional practices. Supervisors can assess how teaching strategies are implemented and how teachers respond to students' needs (Ansori & Nugraha, 2026). Instructional materials also help assess the alignment between lesson planning and implementation (Roziqin, Imron, & Sunarni, 2026). Supervision findings need to be analyzed to identify which aspects of instruction require improvement, rather than merely documenting teachers' strengths and weaknesses. Clinical supervision emphasizes the link between observation and professional guidance, so that supervision findings support improvements in teaching practice (Nasution, Syafaruddin, & Syukri, 2021).

3.4 Using Supervision Findings and Data for Decision-Making

Academic supervision findings constitute educational data that must be analyzed to explain instructional problems and needs. Data do not automatically lead to appropriate decisions. Therefore, data literacy is essential to ensure that information is used effectively in decision-making (Mandinach & Gummer, 2016). Effective data use requires a sound understanding. Misinterpretation of data may lead to decisions that do not align with instructional needs (Mandinach & Schildkamp, 2021). Analysis of supervision findings should consider classroom conditions, teachers, and students. Data-informed professional development can help teachers reflect and identify actions for improvement (Ansyari et al., 2020). Educational technology also supports information management, though its benefits depend on users' ability to interpret the data (Alonzo, Quimno, Townend, & Oo, 2024). Supervision technology still requires interpretation by supervisors and teachers. The use of data in

educational meetings is not always optimal. Data are sometimes discussed only superficially and are not analyzed consistently (Gasse & Mol, 2021). This suggests that the main challenge is not merely obtaining data but connecting them to problem identification and improvement actions.

3.5 Setting Instructional Improvement Priorities

Describe Supervision findings often reveal a range of problems, from lesson planning and teaching methods to classroom management and assessment. Setting priorities is therefore important to ensure that improvement efforts are focused. Educational improvement should begin with a clear understanding of the problem. Improvement science involves identifying the problem, setting priorities, implementing actions, and conducting systematic evaluation (Anderson, Cunningham, & Richardson, 2024). This approach is relevant to academic supervision because not all findings can be addressed simultaneously. Improvement priorities should be set based on the issue's importance and its impact on learning. Problems that affect students' understanding and engagement should take precedence over administrative matters that do not directly affect learning. Supervision data can help establish the rationale for these priorities (Rahmawati, 2025). Priority setting should align with the capacities of teachers and the madrasah. Efforts that are too broad or difficult to implement may hinder progress. Decisions should consider time, resources, institutional support, and teachers' readiness.

Table 3. Dimensions of Priority Setting for Instructional Improvement

Priority Dimension	Analytical Question	Use of Supervision Findings
Problem urgency	Which problem requires the most immediate attention?	Identifying instructional gaps that require immediate action
Impact on students	Which problem has the greatest influence on the learning process or learning outcomes?	Linking observation findings to students' learning needs
Competency gap	Which aspects of teacher competence need to be developed?	Determining the need for professional guidance or coaching
Feasibility of action	Which improvement action is realistically feasible?	Aligning improvement actions with the madrasah's available resources
Sustainability	Can the action be monitored and further developed?	Determining follow-up and evaluation indicators

3.6 Supervision Follow-Up: Coaching, Feedback, and Professional Development

Priority setting must be followed by actions that address the identified problems. In madrasah, supervision follow-up may include professional guidance, discussion, training, mentoring, or the development of instructional materials (Fanani & Wahyono, 2021). Academic supervision can also support teachers' professional development through structured guidance, collaborative discussions, classroom action research, and the use of technology-based learning media to improve instructional practices (Suwarno, Mahidin, & Aeni, 2022). Follow-up should be tailored to teachers' needs. Teachers who have difficulty designing instruction may receive planning support, whereas those facing classroom teaching challenges may benefit from subsequent observation or coaching. Coaching encourages teachers to reflect on their teaching practices and identify steps for improvement (Afaidi, Bahrun, Rasyid, & Lismeni, 2026). Feedback helps teachers understand their current practices and the changes they need to make. Effective feedback does not merely evaluate performance; it clarifies the goal, the current situation, and the steps for improvement (Hattie & Timperley, 2007). Feedback should be clear and aligned with supervision findings. Observation instruments should also support teachers' professional development. Instruments used solely for evaluation may lead to supervision being perceived as an administrative activity. In contrast, instruments that include reflection help teachers identify their own development needs (White & Maher, 2024).

Table 4. Relationship between Supervision Findings and Follow-Up Actions

Supervision Finding	Relevant Follow-Up Action	Evidence of Follow-Up

Instructional strategies do not meet students' needs	Coaching or reflective discussion	A plan for improving teaching strategies
Assessment practices are not optimal	Assessment-focused guidance	Revised assessment instruments
Instructional planning is inconsistent with implementation	Review of instructional materials	Revised instructional materials
Teachers experience difficulties in specific competencies	Training or individual mentoring	Mentoring records
Problems are identified among several teachers	Training or collaborative forums	Professional development program

3.7 Follow-Up Evaluation and Continuous Improvement

Supervision follow-up cannot be considered successful merely because recommendations have been implemented. Evaluation is necessary to determine whether the expected changes have actually occurred. Supervision should continue with ongoing monitoring of teachers' progress rather than ending with the provision of recommendations (Haryanto, 2024). Evaluation should also assess whether the action aligns with the initial problem. The CIPP model evaluates a program in terms of context, input, process, and product, thereby examining not only implementation but also its impact (Wulandari & Hanafiyah, 2026). This approach helps assess resource adequacy and instructional changes. If the problem remains unresolved, supervisors and teachers need to reassess its causes and the improvement strategy. This aligns with improvement science, which uses evaluation results to refine subsequent actions (Anderson et al., 2024).

Table 5. Cycle for Utilizing Academic Supervision Findings

Stage	Main Activity	Output
Collection of supervision findings	Classroom observation, document review, and information gathering	Supervision notes or data
Interpretation	Identifying patterns, gaps, and the context of problems	Diagnosis of instructional problems
Priority setting	Determining the most important and feasible problems to address	List of improvement priorities
Follow-up planning	Determining actions, responsible parties, and indicators	Follow-up action plan
Implementation of improvement actions	Coaching, guidance, training, or mentoring	Implementation of improvement actions
Evaluation and reflection	Examining changes and the effectiveness of actions	Evaluation results and recommendations for the next supervision cycle

DISCUSSION

Mechanisms for Utilizing Academic Supervision Findings in Madrasah

The findings indicate that academic supervision functions as an information management mechanism for instructional improvement. Supervision generates information on teaching practices that can be used to understand problems and determine actions. Educational data use also underscores the importance of analysis before decisions are made (Ansyari et al., 2020). In a madrasah, this process begins with collecting evidence through observation and documentation. Findings are then analyzed to distinguish among individual problems, challenges faced by several teachers, and institutional barriers. This distinction is important because each type of problem requires a different response. Teaching-skill problems can be addressed through coaching or mentoring. Meanwhile, issues experienced by several teachers may serve as a basis for collective training or madrasah-wide professional development programs. Supervision in madrasah can involve various activities tailored to teachers' needs (Rezeki, Malli, Bakri, & Sumiati, 2024).

 ISSN 2776-5229

Priority Setting as a Decision-Making Process

Priority setting links supervision findings to improvement actions. Not all identified problems can be addressed at once. If all findings are treated as equally important, follow-up may become too broad and difficult to implement. Data-informed decision-making emphasizes the importance of analysis before actions are decided (Mandinach & Schildkamp, 2021). Priorities should be set based on problem urgency, impact on students, teachers' needs, and implementation feasibility. Teachers should also be involved in this process because they understand classroom conditions firsthand. Discussions with teachers help supervisors gain a more complete understanding of the problems. Coaching encourages teachers to participate in identifying problems and determining steps for improvement (Izzati, Istiqomah, Chusnita, & Soedjono, 2026).

Follow-Up as a Response to Supervision Diagnosis

Supervision follow-up should be based on observation and analysis. For example, teachers' difficulties in designing instruction are better addressed through reviews of instructional materials, discussion, or targeted mentoring than through general training unrelated to the problem. Coaching, feedback, training, and professional guidance can help improve teacher competence (Hidayati, 2026). However, follow-up may fail to produce improvement if it does not align with teachers' needs. Feedback should identify which instructional aspects need improvement and how to improve them. Evaluation that offers only general statements about shortcomings does not provide sufficient guidance. Feedback should therefore be clear and aligned with instructional objectives (Hattie & Timperley, 2007).

Follow-Up Evaluation as a Driver of Continuous Improvement

Follow-up evaluation should not only assess whether recommendations have been implemented but also determine whether the actions have produced changes. This is important because implementing recommendations does not necessarily indicate instructional success. Evaluation should examine the relationship between the initial problem, the improvement action, and its outcomes. If the problem persists after an action has been taken, supervisors and teachers need to revisit its causes and the improvement strategy. Evaluation thus becomes a learning process for teachers and madrasah rather than merely an administrative activity. The CIPP model evaluates supervision across context, resources, process, and outcomes (Wulandari & Hanafiyah, 2026). Improvement science, by contrast, emphasizes using evaluation results to guide subsequent improvements (Anderson et al., 2024).

An Integrative Model for Utilizing Academic Supervision Findings

The use of academic supervision findings can be structured in six stages: collecting findings, interpretation, priority setting, follow-up planning, implementation of improvements, and evaluation and reflection. This model integrates academic supervision in madrasah with data use and continuous improvement. Supervision generates information about learning, while data-use approaches emphasize analyzing information before using it for decision-making (Mandinach & Gummer, 2016).

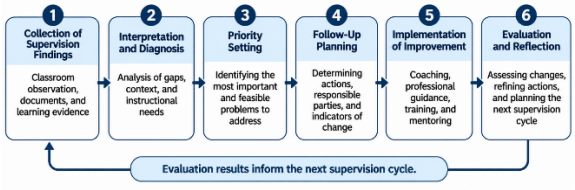


Figure 2. Conceptual model of the mechanism for utilizing academic supervision findings

The model's contribution is to emphasize the need to analyze and prioritize supervision findings before follow-up. Supervision literature addresses implementation and teacher guidance, whereas data-use studies explain analysis and decision-making processes (Spiele, Janssen,

Schildkamp, & Poortman, 2025). Integrating these two perspectives helps clarify the relationship among supervision findings, improvement decisions, and follow-up evaluation. In madrasah, this model can serve as a framework for developing supervision that is oriented not only toward administrative compliance but also toward teachers' professional development and improved instructional quality. Nevertheless, the model remains conceptual and requires empirical testing. Future research may examine how each stage is implemented in madrasah supervision, the factors that facilitate or hinder the use of the findings, and the extent to which the mechanism contributes to changes in teaching and learning.

The Novelty and Contribution of the Proposed Model

The contribution of this study lies not in introducing entirely new supervision activities, but in integrating existing academic supervision practices into a structured mechanism for evidence-based instructional decision-making. Previous approaches to academic supervision have primarily emphasized planning, classroom observation, feedback, and professional guidance. Meanwhile, data-use approaches highlight the importance of analyzing educational information before making decisions (Mandinach & Gummer, 2016). While improvement science emphasizes the use of evaluation results to refine subsequent improvement actions (Anderson et al., 2024). These perspectives provide important foundations, but their integration into a mechanism for utilizing academic supervision findings requires further conceptual clarification. The proposed model offers three interconnected contributions. First, it positions priority setting as an explicit decision-making stage between the interpretation of supervision findings and the selection of follow-up actions. Priorities are determined by considering problem urgency, impact on students, teachers' competency gaps, feasibility of action, and sustainability of improvement. Second, the model establishes a direct relationship between supervision findings and the selection of professional guidance. This means that follow-up actions are determined according to the diagnosed instructional problems and teachers' actual development needs, rather than being implemented as general activities. Third, the model positions follow-up evaluation as a feedback mechanism for determining subsequent supervision and improvement actions. Evaluation therefore examines not only the implementation of recommendations but also changes in instructional practices and the need for further intervention. Through these three interconnected contributions, the model connects the collection and interpretation of supervision findings with priority setting, follow-up planning, implementation, and evaluation within a continuous instructional improvement mechanism. Its distinctive contribution is the integration of evidence interpretation, improvement prioritization, needs-based intervention, and evaluative feedback into a single conceptual framework for madrasah supervision. Nevertheless, the proposed model remains conceptual and requires empirical testing to examine its applicability and effectiveness in actual madrasah settings.

4. CONCLUSION

This review demonstrates that academic supervision findings can serve as a basis for instructional decision-making, teacher guidance, and continuous improvement in madrasah. The findings indicate that supervision information needs to be interpreted and analyzed to identify instructional problems, understand their causes, and determine teachers' professional development needs. The mechanism for utilizing supervision findings consists of six interconnected stages: collection of findings, interpretation and diagnosis, priority setting, follow-up planning, implementation of improvement actions, and evaluation and reflection. Priority setting is an essential decision-making stage that connects supervision findings with appropriate improvement actions. Priorities should be determined by considering problem urgency, impact on students, teachers' competency gaps, feasibility of action, and sustainability of improvement. Based on these priorities,

follow-up actions such as coaching, feedback, training, mentoring, and collaborative professional development can be selected according to teachers' actual needs. Evaluation should examine not only the implementation of recommendations but also changes in instructional practices and the need for further intervention. The main contribution of this study is an integrative conceptual model that connects the interpretation of supervision findings, improvement prioritization, needs-based follow-up actions, and evaluative feedback within a continuous instructional improvement mechanism. This model positions academic supervision not merely as an evaluation activity but as an evidence-based decision-making process that supports teachers' professional development and instructional quality. Nevertheless, the proposed model remains conceptual and has not been empirically tested. Future research should examine its implementation in madrasah, including the factors that facilitate or hinder each stage and its contribution to improving teaching and learning quality.

5. REFERENCES

Afaidi, M. I., Bahrun, B., Rasyid, S., & Lismeni, C. (2026). Coaching-Based Academic Supervision for Junior High School Teachers: From Planning to Evaluation and Performance Improvement. *Educational Journal of Practice and Policy, 13(1)*, *13*(1). https://doi.org/10.19109/ejpp.v13i1.32150

Alonzo, D., Quimno, V., Townend, G., & Oo, C. Z. (2024). Using Information and Communication Technology (ICT)-Based Data Systems to Support Teacher Data-Driven Decision-Making: Insights from the Literature (2013–2023). *Educational Assessment, Evaluation and Accountability, 36, 433–451*, 433–451. https://doi.org/10.1007/s11092-024-09443-8

Anderson, E., Cunningham, K. M. W., & Richardson, J. W. (2024). Framework for Implementing Improvement Science in a School District to Support Institutionalized Improvement. *Education Sciences, 14(7), 770*, *14*(7). https://doi.org/10.3390/educsci14070770

Ansori, S. H., & Nugraha, M. S. (2026). Academic Supervision Cycle Based on Classroom Observation and Professional Feedback at MA Al-Ikhlash Cicalengka. *MANAZHIM, 8(2), 210–237*, *8*(2), 210–237. https://doi.org/10.36088/manazhim.v8i2.6513

Ansyari, M. F., Groot, W., & Witte, K. D. (2020). Tracking the Process of Data Use Professional Development Interventions for Instructional Improvement: A Systematic Literature Review. *Educational Research Review, 31, 100362*. https://doi.org/10.1016/j.edurev.2020.100362

Azhar, R. S., Nurman, J. W., & Azhar, R. P. (2021). Upaya Optimalisasi Mutu Pembelajaran Dengan Adaptasi Strategi Supervisi Akademik Di Tengah Pandemi. *Jurnal Isema: Islamic Educational Management*, *6*(2), 159–170. https://doi.org/10.15575/isema.v6i2.11257

Bearman, M., Smith, C. D., Carbone, A., Slade, S., Baik, C., Hughes-Warrington, M., & Neumann, D. L. (2012). Systematic Review Methodology in Higher Education. *Higher Education Research & Development*, *31*(5), 625–640. https://doi.org/10.1080/07294360.2012.702735

Chong, S. W., Lin, T. J., & Chen, Y. (2021). A Methodological Review of Systematic Literature Reviews in Higher Education: Heterogeneity and Homogeneity. *Educational Research Review*, *35*(100426). https://doi.org/10.1016/j.edurev.2021.100426

Darlis, A. M. (2020). Pelaksanaan Supervisi Akademik Guru Pendidikan Agama Islam Oleh Kepala Madrasah Aliyah Negeri Di Provinsi Kepulauan Bangka Belitung. *El-Idare: Jurnal Manajemen Pendidikan Islam*, *6*(1), 63–72. https://doi.org/10.19109/elidare.v6i1.5974

Fanani, A. A., & Wahyono, I. (2021). Pelaksanaan Supervisi Akademik Pengawas Madrasah Dalam Peningkatan Kompetensi Pedagogik Guru Di Madrasah Ibtidaiyah Tarbiyatussibyan Banyuwangi. JIEMAN: *Journal of Islamic Educational Management, 3(1)*, *3*(1). https://doi.org/10.35719/jieman.v3i1.43

Fauziah, M., Zainuddin, Z., Muhajir, U., & Sopwandin, I. (2020). Implementasi Supervisi Akademik Kepala Madrasah Berbasis Pendekatan Kolaboratif Dan Kekeluargaan Dalam Meningkatkan Kinerja Guru. *Tadbir Muwahhid*, *4*(2), 117–137. https://doi.org/10.30997/jtm.v4i2.2879

Gasse, R. V., & Mol, M. (2021). Student Guidance Decisions at Team Meetings: Do Teachers Use Data for Rational Decision Making? *Studia Paedagogica, 26(4)*, *26*(4). https://doi.org/10.5817/SP2021-4-5

Hamid, A., & Ma'arif, M. A. (2019). Kepala Madrasah, Supervisi Akademik Dan Kinerja Guru: Kasus Di Madrasah Ibtidaiyah Sirajul Ulum Jatiurip Krejengan Probolinggo. *JIEMAN: Journal of Islamic Educational Management*, *1*(1), 77–89. https://doi.org/10.35719/jieman.v1i1.2

Haryanto, H. (2024). Teacher Professional Development in Academic Supervision: A Qualitative Study at Madrasah Tsanawiah. *Journal of Education and Teaching, 5(3), 350–361*, *5*(3), 350–361. https://doi.org/10.51454/jet.v5i3.445

Hasanah, M. L., & Kristiawan, M. (2019). Supervisi Akademik Dan Bagaimana Kinerja Guru. *Tadbir: Jurnal Studi Manajemen Pendidikan*, *3*(2), 97–112. https://doi.org/10.29240/jsmp.v3i2.1159

Hattie, J., & Timperley, H. (2007). The Power of Feedback. *Review of Educational Research, 77(1), 81–112*, *77*(1), 81–112. https://doi.org/10.3102/003465430298487

Hidayati, N. (2026). Supervisi Akademik Berbasis Coaching Oleh Pengawas Madrasah Untuk Meningkatkan Kompetensi Profesional Guru Madrasah Ibtidaiyah Binaan. *Jurnal Inovasi Dan Riset Pendidikan Dasar, 1(2)*, *1*(2). https://doi.org/10.64421/jirpd.v1i2.96

Iskandar, A. (2020). Manajemen Supervisi Akademik Kepala Madrasah. *Jurnal Isema: Islamic Educational Management*, *5*(1), 69–82. https://doi.org/10.15575/isema.v5i1.5976

Izzati, N., Istiqomah, Chusnita, L., & Soedjono. (2026). From Evaluation to Reflection: The Transformation of Academic Supervision as a Strategy for Teacher Professional Development in Islamic Elementary Schools. *Journal of Educational Sciences, 10(3), 1162–1172*, *10*(3), 1162–1172. https://doi.org/10.31258/jes.10.3.p.1162-1172

Latief, J., & Masruroh, N. A. (2017). Kepala Madrasah Sebagai Supervisor Akademik Untuk Meningkatkan Kinerja Guru MTs N Donomulyo Kulonprogo. *MANAGERIA: Jurnal Manajemen Pendidikan Islam*, *1*(2), 275–296. https://doi.org/10.14421/manageria.2016.12-06

Mandinach, E. B., & Gummer, E. S. (2016). What Does It Mean for Teachers to Be Data Literate: Laying Out the Skills, Knowledge, and Dispositions. *Teaching and Teacher Education, 60, 366–376*, 366–376. https://doi.org/10.1016/j.tate.2016.07.011

Mandinach, E. B., & Schildkamp, K. (2021). The Complexity of Data-Based Decision Making: An Introduction to the Special Issue. *Studies in Educational Evaluation, 69, 100906*. https://doi.org/10.1016/j.stueduc.2020.100906

Munasir, M., Ilyas, R. M. M., & Erihadiana, M. (2024). Peran Kepala Madrasah Dalam Meningkatkan Mutu Pembelajaran Melalui Supervisi Akademik. *Jurnal Educatio: Jurnal Pendidikan Indonesia, 10(1), 164–170*, *10*(1), 164–170. https://doi.org/10.29210/1202423501

Munawar, M. (2019). Supervisi Akademik: Mengurai Problematika Profesionalisme Guru Di Sekolah. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam*, *3*(1), 135–155. https://doi.org/10.33650/al-tanzim.v3i1.522

Mustaqim, M., Fahmi, M. H., & Setiyaningsih, L. A. (2020). Intensitas, Kualitas, Derajat Relevansi Supervisi Akademik Dalam Meningkatkan Kinerja Guru Madrasah Di Era Teknologi Komunikasi. *Tadbir: Jurnal Studi Manajemen Pendidikan*, *4*(2), 233–254. https://doi.org/10.29240/jsmp.v4i2.2015

Mustofa, I., Trisnamansyah, S., Mulyanto, A., & Insan, H. S. (2021). The Influence of Academic Supervision Activities, School Culture, Infrastructure, on the Quality of Learning Processes and Outcomes at Madrasah Aliyah. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam*, *6*(3), 727–736. https://doi.org/10.31538/ndh.v6i3.2320

Nasution, T., Syafaruddin, S., & Syukri, M. (2021). Implementation of Clinical Supervision in Improving the Quality of Teacher Performance at Madrasah Ibtidaiyah. *Jurnal Basicedu, 5(6), 5583–5592*, *5*(6), 5583–5592. https://doi.org/10.31004/basicedu.v5i6.1719

Nuryani, L. K., Enas, E., Herman, M., Wahyudi, E., Dianawati, L., & , E. Enas, M. Herman, E. Wahyudi L. K. Nuryani. (2022). Teachers' Perceptions of Academic Supervision in a Pandemic Era: Phenomenological Review. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam*, *6*(3), 679–692. https://doi.org/10.33650/al-tanzim.v6i3.3646

Page, M. J. (2021). The PRISMA 2020 Statement: An Updated Guideline for Reporting Systematic Reviews. *BMJ*, *372*, n71. https://doi.org/10.1136/bmj.n71

Rahmawati, Y. T. N. (2025). Data-Driven Leadership in Madrasahs: How Institutional Data Shapes Strategic Decision-Making and Educational Quality. *Education and Sociedad Journal, 3(1)*, *3*(1). https://doi.org/10.61987/edsojou.v3i1.3095

Rezeki, S., Malli, R., Bakri, M. A., & Sumiati, S. (2024). Implementation of the Supervisory Function in Improving Teacher Competence at Madrasah Aliyah Modern Pesantren IMMIM Putera Makassar. *FIKROTUNA: Jurnal Pendidikan Dan Manajemen Islam, 13(1), 310–320*, *13*(1), 310–320. https://doi.org/10.32806/jf.v13i1.795

Roziqin, K., Imron, A., & Sunarni. (2026). Academic Supervision Strategies by School Principals Based on Authentic Observation: Efforts to Develop Teacher Professionalism at Madrasah Masanema. *Jurnal Kajian Pendidikan Islam, 7(3)*, *7*(3). https://doi.org/10.32806/jkpi.v7i3.1971

Sahaludin, A. H., Wahyudin, W., & Gunawan, A. (2023). Academic Supervision of the Head of Madrasah in Indonesia: A Meta-Analysis. *International Journal of Graduate of Islamic Education*, *4*(1), 1–13. https://doi.org/10.37567/ijgie.v4i1.1593

Spiele, S., Janssen, J. J. H. M., Schildkamp, K., & Poortman, C. L. (2025). The Effect of Teacher Data Use Professional Development Interventions on Student Achievement: A Meta-Analysis and Qualitative Comparative Analysis. *Studies in Educational Evaluation, 87, 101528*. https://doi.org/10.1016/j.stueduc.2025.101528

Subaidi, S., Sutain, S., & S. Subaidi. (2019). Supervisi Akademik Kepala Madrasah Dalam Meningkatkan Kinerja Guru Pada MTs NU Banat Kudus. *Jurnal Isema: Islamic Educational Management*, *4*(2), 147–162. https://doi.org/10.15575/isema.v4i2.5602

Suwarno, S. A., Mahidin, L., & Aeni, I. N. (2022). Supervisi Akademik Kepala Madrasah Dalam Meningkatkan Kompetensi Profesional Guru Di Madrasah Aliyah Sunan Kalijaga Sukorambi. *Attahsin*. https://doi.org/10.59106/attahsin.v2i2.89

Syam, A. S. M. (2021). Supervisi Akademik Kepala TK Terhadap Kinerja Guru Pada Masa Pandemi Covid-19. *Adaara: Jurnal Manajemen Pendidikan Islam*, *11*(2), 163–174. https://doi.org/10.35673/ajmpi.v11i2.2148

White, M., & Maher, B. L. (2024). How Might Rubric-Based Observations Better Support Teacher Learning and Development? *Educational Research, 66(1), 86–101*, *66*(1), 86–101. https://doi.org/10.1080/00131881.2024.2304542

Wulandari, R., & Hanafiyah, L. Z. (2026). Evaluation of Academic Supervision Program in Improving Teachers' Administrative Compliance in Learning at MTs Semarang. *RIGGS: Journal of Artificial Intelligence and Digital Business, 5(2), 3746–3753*, *5*(2), 3746–3753. https://doi.org/10.31004/riggs.v5i2.8733

Xiao, Y., & Watson, M. (2019). Guidance on Conducting a Systematic Literature Review. *Journal of Planning Education and Research*, *39*(1), 93–112. https://doi.org/10.1177/0739456X17723971

Zaidan, Andriani, K. M., Azzahra, I. M., & Wiranata, Rz. R. S. (2021). Upaya Kepala Sekolah Dalam Meningkatkan Kinerja Guru Melalui Supervisi Akademik Di SD Negeri 1 Kangkung OKU Timur. *Al-Fahim: Jurnal Manajemen Pendidikan Islam*, *3*(1), 104–116. https://doi.org/10.54396/alfahim.v3i1.140