

Academic Supervision in Improving Teachers' Potential Abilities as Educators

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Abstract

The demands for increasing teacher professionalism place the principal's academic supervision as an important strategy in optimizing the potential abilities of teachers as educators. This study aims to analyze the implementation of academic supervision by school principals in improving the potential abilities of teachers as educators at three schools in Banda Aceh, Indonesia. The research employed a qualitative case study design. Data were collected through observation, in-depth interviews, and documentation studies involving principals and teachers as key informants. Data analysis was conducted inductively through the stages of data reduction, data presentation, and conclusion drawing. Its validity was tested through triangulation of sources and techniques. The research results show that academic supervision is implemented through three main stages: planning, implementation, and follow-up. Supervision planning is systematically developed based on an analysis of teacher needs. Supervision implementation utilizes directive, non-directive, and collaborative approaches, with the collaborative approach being the dominant approach due to its ability to build professional partnerships and reflect on learning. Supervision follow-up is carried out through individual and group coaching, internal training, and ongoing reflection, which help improve teachers' pedagogical and professional competence. This study concludes that planned, collaborative, and continuous academic supervision plays a significant role in improving teachers' potential abilities and strengthening the quality of learning in schools.

1. Introduction

Education constitutes a strategic pillar in national development, as it functions as the primary mechanism for developing high-quality human resources capable of responding to global transformation and technological change (Akmaluddin et al., 2025; Elpisah et al., 2023; Ho Cong, 2025). Within this framework, teachers occupy a central position because the effectiveness of educational reform ultimately depends on classroom-level instructional quality (Ibrahim et al., 2020; Solihin et al., 2024; Suyatno et al., 2022). Indonesian education policy further reinforces this position through Law No. 20 of 2003 and Government Regulation No. 57 of 2021, which mandate teachers to demonstrate pedagogical, professional, social, and personal competence. Thus, improving teacher competence is not merely an institutional concern but a constitutional and systemic imperative.

One strategic mechanism widely promoted to enhance teacher competence is academic supervision. Conceptually, academic supervision refers to systematic professional assistance provided to teachers to improve instructional planning, implementation, and evaluation professionals (Bilbokaité et al., 2020; Brandisauskiene et al., 2020; Guo et al., 2020; Mulyanti, 2023; Usman et al., 2023). In contemporary educational leadership discourse, academic supervision is frequently situated within the broader framework of instructional leadership, where principals act as pedagogical leaders who influence teaching quality through mentoring, monitoring, and reflective dialogue (Iman et al., 2025; Kosim et al., 2023; Lubis & Kartika, 2024). Simultaneously, supervision practices are often linked to clinical supervision models emphasizing cyclical observation, feedback, and professional reflection (Kurniaty & Indrayuda, 2024).

However, despite the strong normative and theoretical endorsement of academic supervision, the existing body of research reveals several important limitations. First, many prior studies rely predominantly on quantitative correlational designs that measure the statistical relationship between supervision and teacher performance, without sufficiently explaining the processual dynamics of supervision practices in real school contexts (Karim et al., 2021; Singerin, 2021). Second, qualitative studies that do exist are often confined to single-case settings, thereby limiting comparative insights and reducing the analytical power to identify dominant supervisory patterns across institutional contexts (Putra et al., 2025; Saihu, 2020). Third, limited scholarship has critically examined which supervisory approaches (directive, non-directive, or collaborative) are most effectively enacted by principals and how these approaches shape teacher professional growth (Aisyah & Matas, 2024; Kusumawati & Umam, 2025; Rahmi & Rassanjani, 2025).

Furthermore, inconsistencies are evident in empirical findings. Some studies report that supervision significantly strengthens pedagogical competence when implemented collaboratively and continuously (Ridiyawati et al., 2025). In contrast, other findings indicate that supervision is frequently perceived by teachers as administrative monitoring rather than developmental mentoring, thereby weakening its transformative impact (Lorensius et al., 2022). These contrasting conclusions suggest that the effectiveness of academic supervision may depend not only on its existence, but on how it is planned, implemented, and followed up in specific institutional contexts (Elpisah et al., 2023; Kadroon, 2023; Karim et al., 2021; Toh et al., 2022).

In the Indonesian elementary school context, variations in teachers' pedagogical competence are particularly visible in lesson planning quality, instructional strategy diversification, formative assessment practices, and integration of learning media. Rather than reducing this issue to a generic statement that "teacher abilities vary," this study frames the problem as a structural gap between regulatory expectations of professional competence and the practical enactment of instructional practices in classrooms. This gap necessitates a closer examination of academic supervision as a professional learning mechanism embedded within the principal's instructional leadership role.

This study positions academic supervision at the intersection of instructional leadership and clinical supervision frameworks. Instructional leadership underscores the principal's responsibility to guide instructional improvement, whereas clinical supervision highlights a structured cycle of planning, observation, feedback, and follow-up. Based on these perspectives, this study adopts an initial conceptual model that views academic supervision as a cyclical and integrated process consisting of three interconnected dimensions: (1) needs-based planning, (2) structured implementation through supervisory approaches, and (3) systematic follow-up aimed at strengthening teachers' pedagogical and professional competence. The effectiveness of supervision is therefore conceptualized as dependent on coherence and continuity across these three stages.

To address the identified gaps, this study employs a multi-case qualitative design in three elementary schools in Banda Aceh, Indonesia. The multi-case approach enables cross-case comparison to identify patterns of supervision planning, implementation strategies, and follow-up mechanisms, thereby contributing a more nuanced and contextualized understanding of academic supervision practices. Accordingly, this study is guided by the following research questions: (1) How Principal Academic Supervision Planning Improves Teachers' Potential Abilities? (2) How Principal Academic Supervision Implementation Improves Teachers' Potential Abilities? (3) How Principal Academic Supervision Follow-up Improves Teachers' Potential Abilities?

By focusing explicitly on the dimensions of planning, implementation, and follow-up, this study seeks to provide a process-oriented and comparative analysis of academic supervision practices. Empirically, it offers evidence from multiple elementary school contexts. Conceptually, it refines the understanding of collaborative supervision within instructional leadership frameworks and proposes a cyclical model of supervision that integrates planning, implementation, and sustained follow-up as core mechanisms of teacher competence development.

2. Method

2.1. Research Design

This study employed a qualitative multiple-case study design to investigate how principals implement and follow up academic supervision to enhance teachers' potential capabilities (Bessong, 2024). A multiple-case design was selected to enable analytical generalization rather than statistical generalization, allowing patterns of supervision practices to be compared across institutional contexts (Farid Alfaaza et al., 2025). The design facilitates identification of both case-specific dynamics and cross-case regularities in supervision planning, implementation techniques, and follow-up mechanisms.

Each school constituted an individual case, while cross-case analysis enabled theoretical replication examining whether similar supervision mechanisms produce comparable professional development patterns across different institutional settings (public and private elementary schools). Cross-case analysis was conducted through several stages. First, data from each school were analyzed within-case to identify themes related to supervision planning, implementation, and follow-up processes. Second, patterns emerging from each case were compared across schools to identify similarities, differences, and contextual influences. Third, recurring themes across the cases were synthesized to generate broader interpretations regarding the role of academic supervision in strengthening teachers' professional capacity. This analytic strategy allows the study to move beyond individual school descriptions toward conceptual insights about effective supervision practices.

2.2. Research Sites and Participant Selection

The study was conducted at three elementary schools in Banda Aceh consisting of one public school and two private schools that have implemented structured academic supervision programs.

Participants were selected using purposive criterion sampling to ensure information-rich cases. The inclusion criteria included:

- a. Principals who actively designed and implemented academic supervision programs.
- b. Teachers who had experienced classroom observation and follow-up supervision during the 2024/2025 academic year
- c. Teachers with a minimum of two years of teaching experience at the respective school.

A total of 12 participants were involved, consisting of three principals and nine teachers. The demographic profile of participants is presented in Table 1.

Table 1. Demographic Profile of Participants

Participant Code	Role	School Type	Teaching/Leadership Experience	Gender
P1	Principal	Public School	12 years	Female
P2	Principal	Private School	10 years	Male
P3	Principal	Private School	9 years	Female
T1	Teacher	Public School	8 years	Female
T2	Teacher	Public School	6 years	Male
T3	Teacher	Public School	5 years	Female
T4	Teacher	Private School	7 years	Female
T5	Teacher	Private School	4 years	Female
T6	Teacher	Private School	6 years	Male
T7	Teacher	Private School	5 years	Female
T8	Teacher	Private School	3 years	Female
T9	Teacher	Private School	4 years	Male

Sampling continued until data saturation was achieved, indicated by the recurrence of similar themes across interviews and cases.

2.3. Data Collection Procedures

Data were collected from February to July 2025 using two primary qualitative techniques: semi-structured interviews and non-participant observation (South et al., 2022). These techniques were selected to capture both participants' perceptions and the actual practices of academic supervision and its follow-up processes (Imiansi et al., 2023). Interviews enabled in-depth exploration of supervision planning, implementation strategies, and professional development mechanisms, while observations provided direct evidence of interaction patterns, mentoring approaches, and reflective dialogue in supervision contexts (Supadi et al., 2021).

The interview protocol used for principals focused on supervision planning, implementation strategies, feedback processes, and follow-up mechanisms, as presented in Table 2.

Table 2. Interview Guide for Principals

Dimension	Key Questions
Supervision Planning	1. How do you design and schedule academic supervision in your school? 2. What objectives guide your supervision program?
Implementation Strategies	3. How do you conduct classroom observations? 4. What direct and indirect supervision techniques do you apply?
Feedback and Evaluation	5. How do you deliver feedback to teachers after supervision? 6. How do you assess teachers' strengths and weaknesses?
Follow-up Mechanisms	7. What forms of reinforcement or coaching do you provide? 8. How do you differentiate follow-up for teachers with different performance levels?
Professional Development	9. How do you facilitate teachers' participation in training or professional development activities?
Impact on Teacher Capacity	10. In your view, how does academic supervision improve teachers' pedagogical and professional capabilities?

Meanwhile, the teacher interview protocol explored their experiences with supervision, the feedback process, and perceived professional development impacts, as summarized in Table 3.

Table 3. Interview Guide for Teachers

Dimension	Key Questions
Experience of Supervision	1. How do you experience classroom supervision conducted by the principal? 2. How often does supervision occur?
Feedback Process	3. How is feedback delivered after classroom observation? 4. Do you find the feedback constructive and helpful?

Dimension	Key Questions
Follow-up Support	5. What kind of coaching or mentoring do you receive after supervision? 6. Are there individual or group discussions?
Professional Development	7. Are you facilitated to attend training or workshops after supervision?
Perceived Impact	8. How has academic supervision influenced your teaching practices and professional competence?

Observation activities were conducted during classroom supervision sessions and follow-up discussions to capture real interaction patterns between principals and teachers. The overall data collection procedures are summarized in Table 4.

Table 4. Data Collection Procedures

Technique	Participants/Context	Focus
Semi-Structured Interviews	3 Principals, 9 Teachers	Supervision planning, implementation, feedback, follow-up, professional development
Non-Participant Observation	Classroom supervision & feedback sessions	Observation practices and mentoring interactions

2.4. Document Analysis

Documents analyzed included supervision programs, supervision instruments, observation sheets, feedback records, teacher coaching reports, and documentation of training participation (Hasudungan et al., 2020). Document analysis served to corroborate interview and observation findings (Azungah, 2018; Bingham, 2023).

3. Results and Discussion

3.1. Principal's Academic Supervision Planning in Improving Teacher Potential Capabilities

The research findings indicate that academic supervision planning at three Elementary Schools in Banda Aceh is carried out in a systematic, structured, and needs-oriented manner. In all three schools, supervision planning begins with a diagnostic stage consisting of classroom observations, review of teaching documents (lesson plans and teaching modules), and evaluation of teacher performance. This diagnostic process functions as an analytical foundation for determining the objectives, focus areas, supervision strategies, and implementation schedule. To present the cross-case comparison more clearly, the findings are summarized in Table 4.

Table 4. Planning of Academic Supervision in Three Elementary Schools in Banda Aceh

Aspect	Elementary School 1	Elementary School 2	Elementary School 3
Basis for Planning	classroom observation and teacher performance evaluation	observation and review of teaching documents	supervision records and classroom monitoring
Planning Frequency	Once a year (annual program)	At least twice a year	At least twice a year
Purpose of Planning	Improve teacher competence, not only administrative assessment	Focus on strengthening instructional quality	Address gaps in teaching practice
Teacher Involvement	Teachers involved in determining focus and schedule	Teachers consulted in supervision discussions	Teachers participate in identifying needs
Program Communication	Socialized in school meetings	Discussed in teacher forums	Delivered in formal coordination meetings
Competencies Targeted	Lesson planning, instructional strategy, evaluation	Teaching tools and classroom management	Teaching implementation and assessment
Regulatory Reference	Refers to national supervision guidelines	Uses official supervision modules	Aligns with Ministry standards

The findings presented in Table 4 indicate that academic supervision planning in the three elementary schools reflects a structured, analytical, and development-oriented approach. Across cases, planning is consistently grounded in a needs assessment process derived from classroom observation, analysis of instructional documents, and evaluation of teacher performance. This diagnostic orientation demonstrates that supervision planning is evidence-based rather than procedural, positioning empirical classroom realities as the primary reference in determining supervision priorities, focus areas, and strategic interventions. Such an approach aligns with the principle of academic supervision as a professional assistance mechanism aimed at improving instructional quality.

Although variations exist in the frequency of supervision planning, annual programming in one school and biannual cycles in the other two, the overall pattern shows that supervision is conducted systematically and periodically. This indicates institutional commitment to sustainability rather than incidental or reactive supervision practices. The structured scheduling suggests that supervision is embedded within the school's professional development framework. Furthermore, the purpose of supervision planning across cases reflects a clear shift from administrative compliance toward professional capacity building. While supervision may contribute to performance documentation requirements, its dominant orientation is strengthening pedagogical competence, instructional management, and assessment practices. This developmental focus reinforces the role of the principal not merely as an evaluator, but as an instructional leader responsible for fostering teacher growth.

Teacher involvement in the planning process emerges as another significant cross-case pattern. The participatory nature of supervision planning, through consultation, collaborative discussions, and shared determination of focus areas, contributes to building professional ownership and enhancing teachers' readiness to engage in reflective improvement. This finding suggests that participatory supervision planning may reduce hierarchical tensions and promote a collegial supervision climate.

3.2. Implementation of Principal Academic Supervision in Improving Teacher Potential Capabilities

Building on the systematic and needs-based planning identified in Section 3.1, the implementation of academic supervision in the three elementary schools demonstrates a structured and developmental orientation. Academic supervision is conducted as a routine professional mentoring activity aimed at improving instructional quality and strengthening teachers' pedagogical and professional competence. The implementation stage operationalizes the supervision plans through structured observation, dialogue, and targeted coaching activities, as summarized in Table 5.

Table 5. Implementation of Academic Supervision in Three Elementary Schools in Banda Aceh

Aspect	Elementary School 1	Elementary School 2	Elementary School 3
Form of Supervision	Direct (classroom visits, observation) and indirect (meetings, document review)	Direct observation and professional discussions	Classroom monitoring combined with consultative supervision
Supervision Schedule	Implemented according to structured annual program	Conducted routinely based on planned supervision program	Implemented systematically at least twice per year
Focus of Supervision	Lesson planning, teaching implementation, and learning evaluation	Instructional methods, classroom management, and media utilization	Learning management and achievement of instructional objectives
Supervisory Techniques	Individual (classroom visits, peer supervision) and group meetings	Individual mentoring and group discussions	Individual consultation and group training sessions
Supervisory Approach and Follow-up	Partnership-based approach with direct coaching and professional development facilitation	Collegial and dialogical approach with targeted mentoring and training	Family-oriented collaborative approach with structured improvement programs

Table 5 shows that academic supervision in the three schools is implemented through a combination of direct and indirect forms. Direct supervision is primarily conducted through classroom visits and learning observations, enabling principals to obtain objective data regarding lesson planning, instructional delivery, classroom management, and learning evaluation. Indirect supervision complements this process through professional discussions, document review, meetings, and consultations. The supervision schedule is structured and program-based, indicating that implementation follows the planning framework rather than being incidental or reactive.

The findings also reveal that supervision emphasizes individualized and collaborative techniques. Principals apply both individual approaches such as classroom observation and personal mentoring and group approaches through meetings, discussions, and training. The supervisory relationship is characterized by partnership, collegiality, and a family-oriented atmosphere, reducing hierarchical barriers and encouraging teacher openness. Follow-up actions include direct coaching and facilitation of professional development activities, ensuring that supervision functions not merely as evaluation, but as a continuous professional development mechanism aimed at enhancing teachers' potential capabilities and improving learning quality.

3.3. Follow-up of the Principal's Academic Supervision in Improving Teacher Potential Capabilities

Consistent with the systematic planning (Section 3.1) and structured implementation (Section 3.2), the follow-up stage represents the consolidation phase of academic supervision in the three elementary schools.

Follow-up is positioned as a continuous professional development process designed to ensure that supervision findings translate into measurable improvements in teachers' pedagogical and professional competence. The patterns of follow-up activities are summarized in Table 6.

Table 6. Follow-up of Academic Supervision in Three Elementary Schools in Banda Aceh

Aspect	Elementary School 1	Elementary School 2	Elementary School 3
Evaluation and Feedback	Evaluation of observation results followed by individual feedback meetings discussing strengths and weaknesses	Review of supervision findings with reflective professional dialogue	Analysis of supervision outcomes through personal consultation and structured feedback
Coaching and Reinforcement	Reinforcement for competent teachers and intensive individual coaching for teachers needing improvement	Appreciation and targeted mentoring based on identified gaps	Motivational reinforcement and solution-oriented coaching discussions
Professional Development Support	Facilitation of training, workshops, and structured professional development programs	Participation in training and collaborative teacher forums	Involvement in competency-building activities and school-wide discussions

As shown in Table 6, follow-up consistently begins with systematic evaluation of classroom observation findings. Principals communicate supervision results through structured feedback sessions that emphasize reflective dialogue. Rather than functioning as administrative appraisal, feedback operates as formative guidance grounded in empirical classroom data. This approach supports teachers in identifying specific areas for refinement, particularly in lesson planning coherence, instructional strategy selection, and assessment alignment.

Beyond evaluative dialogue, follow-up extends into differentiated coaching mechanisms. Teachers demonstrating instructional proficiency receive professional reinforcement, while those encountering challenges are provided with individualized mentoring and solution-oriented consultation. The integration of appreciation, mentoring, and targeted intervention reflects a developmental orientation in supervision practice. Professional development support further institutionalizes follow-up as an ongoing process. Participation in workshops, collaborative forums, and competency-building programs indicates that supervision findings are systematically linked to structured learning opportunities. This alignment ensures continuity between classroom observation, feedback, and capacity-building activities.

Cross-case synthesis reveals that follow-up does not operate as an isolated phase but as a reinforcing mechanism that reconnects supervision outcomes with subsequent planning cycles. The interaction between evaluation, coaching, and professional development forms a continuous improvement structure. Based on this synthesis, the study proposes a cyclical academic supervision model illustrated in Figure 1.

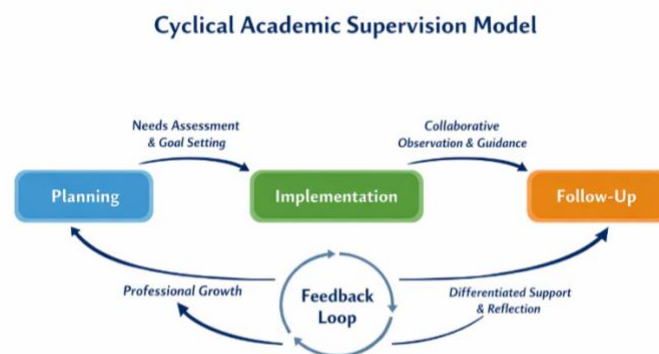


Figure 1. Cyclical Academic Supervision Model Derived from Cross-Case Analysis

The model conceptualizes academic supervision as an iterative leadership process. Planning initiates the cycle through needs assessment and goal alignment. Implementation operationalizes supervision through collaborative classroom observation and dialogic guidance. Follow-up consolidates findings into differentiated professional support mechanisms. The embedded feedback loop signifies that outcomes from follow-up activities inform subsequent planning decisions, thereby establishing supervision as a structured professional learning cycle. This cyclical configuration positions academic supervision as a strategic instrument of instructional leadership aimed at sustained teacher capacity development.

3.4. Discussion

3.4.1. Principal's Academic Supervision Planning in Improving Teacher Potential Capabilities

Research findings indicate that academic supervision planning at three Elementary Schools in Banda Aceh is systematically structured, starting from an analysis of teacher needs and challenges. This planning pattern demonstrates that academic supervision is not positioned as a mere administrative activity, but rather as a professional development strategy oriented toward developing teachers' potential as educators.

These research findings align with perspective, which asserts that academic supervision planning is the process of developing documents and a series of planned activities aimed at helping teachers develop their abilities in managing learning and achieving learning objectives. In the context of the three schools studied, supervision planning was conducted at the beginning of the school year, taking into account the results of observations, discussions, and previous supervision experiences. This step demonstrates the principal's awareness of using empirical data as the basis for formulating the supervision program.

Teacher involvement in developing the supervision program, particularly in determining the schedule and focus of supervision, strengthens the participatory and collaborative nature of academic supervision. These findings support Sahrudin (2025) opinion, which states that academic supervision planning involving teachers can optimize observation and follow-up, while simultaneously building a respectful professional relationship between the principal and teachers. Through this involvement, supervision is no longer perceived as a unilateral control exercise, but rather as a collaborative learning process aimed at improving the quality of learning.

Furthermore, the research findings also indicate that academic supervision planning serves as an instrument for anticipating various obstacles in its implementation. Principals analyze the situation and teachers' needs before establishing supervision strategies, thus ensuring that the program is more adaptable to limitations in time, resources, and teacher readiness. This finding is consistent with Ningsih et al., (2025) view, which emphasizes that thorough supervision planning allows for effective supervision even under limited conditions.

Conceptually, academic supervision planning based on teacher needs and school conditions enables supervision to function not only as an evaluation tool but also as a means of teacher empowerment (Muttaqin et al., 2023). A well-planned supervision program encourages teacher professional growth, improves the quality of learning, and creates a more conducive teaching and learning environment. Thus, academic supervision contributes to increased teacher job satisfaction and the effectiveness of the learning process.

Effective academic supervision planning must be based on an analysis of teacher needs, the establishment of clear objectives, and active teacher involvement in the planning process. Such planning enables principals to design efficient and effective supervision activities, strategies, and schedules, with the primary goal of continuously improving teachers' potential as educators.

3.4.2. Implementation of Principal Academic Supervision in Improving Teacher Potential Capabilities

The implementation of academic supervision at three Schools in Banda Aceh demonstrates that supervision is positioned as a primary instrument in strengthening the quality of learning. Supervision focuses on academic aspects, particularly the planning, implementation, and evaluation of learning, so that supervision serves not only as oversight but also as a means of continuously developing teachers' potential abilities.

Research findings indicate that principals implement academic supervision in a planned, structured, and continuous manner. Classroom observations are conducted according to an agreed-upon schedule, using assessment instruments containing key learning indicators. This pattern reflects data- and evidence-based supervision practices, ensuring that the supervision results have an objective basis for teacher reflection and development. Following the observations, principals conduct individual feedback sessions using a dialogic and constructive approach, emphasizing appreciation for teacher excellence while providing professional guidance for improvement.

This approach to supervision aligns with Burhan and Sauri, (2025) perspective, which emphasizes that effective academic supervision must be based on collaborative, democratic, constructive, and continuous principles. The collaborative principle is reflected in the principal's role as a professional partner to teachers, rather than a judgmental evaluator. Teachers are given space to discuss learning challenges and actively participate in formulating solutions, fostering a trusting and open working relationship.

Democratic principles are also evident in the implementation of supervision, where teachers are not merely objects of supervision, but subjects who actively participate in the reflection and decision-making process for learning. The principal fosters a supervisory climate that values teacher opinions and encourages the emergence of innovative learning ideas Brunning et al., (2020) and Khun-Inkeeree et al., (2020). This contributes to increased teacher motivation and responsibility in improving their professional performance.

From a constructive perspective, the academic supervision implemented is oriented toward development, not just assessment. The principal's feedback is constructive and directed toward improving learning practices (Shaked, 2024). Supervision is not used as a control tool, but as a means of professional learning for teachers. This approach creates a positive psychological climate, allowing teachers to feel safe reflecting and innovating in their learning.

The aspect of sustainability is also a strength in the implementation of academic supervision in the three schools. Supervision is not carried out sporadically, but rather a continuous and programmed process. Ongoing supervision allows principals to monitor teacher development over time and plan follow-up actions in the form of ongoing coaching, training, or professional discussions. This reinforces the view that improving teacher competency is a long-term process that requires consistent mentoring.

Observations show that teachers who receive regular supervision experience improved abilities in developing Lesson Plans, implementing more varied learning methods, and utilizing digital media creatively. These findings indicate that academic supervision plays a crucial role in helping teachers explore and optimize their potential. Furthermore, feedback based on appreciation and reflection has been shown to strengthen professional relationships between principals and teachers, resulting in increased teacher confidence and commitment to improving the quality of learning.

This study also shows that principals employ directive, non-directive, and collaborative approaches in academic supervision. The choice of approach is tailored to the teacher's skill level and the learning context. The collaborative approach is the most dominant, considered the most effective in encouraging active teacher involvement in the learning improvement process. The flexibility in using this approach demonstrates the principal's ability to carry out supervision contextually and adaptively. This finding aligns with Singerin (2021) statement that systematically implemented academic supervision can improve teachers' pedagogical and professional competence. Supervision helps teachers identify their strengths and weaknesses, while fostering a sense of continuous learning and innovation. In this context, academic supervision becomes an integral part of the principal's instructional leadership practices.

This finding also resonates with international research on instructional leadership and supervision practices. Studies conducted in countries such as the United States, Finland, and Singapore emphasize that effective academic supervision involves continuous classroom observation, dialogic feedback, and collaborative professional learning between school leaders and teachers (Hallinger, 2020; Robinson et al., 2022). In these contexts, supervision is similarly conceptualized not merely as an evaluative mechanism but as a professional learning process that supports teacher reflection and instructional improvement. The similarity between these international findings and the present study suggests that collaborative and reflective supervision practices represent a globally recognized strategy for strengthening teacher professional capacity and improving the quality of learning.

3.4.3. Follow-up of the Principal's Academic Supervision in Improving Teacher Potential Capabilities

Follow-up is the most crucial element in the entire academic supervision process because it serves as the bridge between supervision findings and the actual improvement of teachers' potential abilities. Without systematic and ongoing follow-up, academic supervision has the potential to stop at the administrative evaluation stage without significantly impacting teaching practices. Research findings indicate that follow-up of academic supervision plays a strategic role in teacher professional development.

Interviews, observations, and documentation indicate that principals follow up on supervision results through various forms of coaching, including awards, reflective discussions, follow-up supervision planning, and ongoing evaluation. This follow-up pattern confirms that academic supervision is not understood as a one-time activity, but rather as a cyclical process that continuously evolves according to teacher needs and the dynamics of learning within the school.

This finding aligns with Widatin et al., (2025) view that follow-up of academic supervision directly contributes to improving teachers' potential abilities, particularly in aspects of learning innovation and reflective skills. Principals who consistently conduct monitoring and follow-up coaching can foster teachers' confidence in facing learning challenges and strengthen their motivation to continue innovating. In the context

of this research, teachers stated that follow-up supervision helped them understand more engaging learning techniques and methods and increased their self-confidence after participating in training and coaching.

In addition to direct professional guidance through discussions and coaching clinics, the principal also directed teachers to participate in training, seminars, and pedagogical competency development activities. This strategy demonstrates that follow-up academic supervision focuses not only on short-term improvements but also on strengthening teacher capacity in the long term. This finding corroborates the research of (Ridiyawati et al., (2025), which confirmed that regular follow-up supervision through internal training and collaborative reflection can significantly improve teachers' pedagogical and professional competencies.

Furthermore, follow-up academic supervision serves as a means of strengthening motivation and establishing a culture of professional learning in schools. The principal acts as a facilitator and motivator, encouraging teachers to continuously learn, reflect, and share good practices with colleagues (Abbaspour et al., 2024). Thus, teachers are no longer positioned as objects of coaching but rather as active subjects in developing their potential and professionalism.

However, this research also identified challenges in implementing follow-up academic supervision. Some teachers still view supervision as a one-way administrative burden, resulting in less than optimal involvement in the follow-up process. This perception limits the positive outcomes of supervision, as it is not understood as a collaborative process aimed at mutual development. These findings indicate that the success of supervisory follow-up is determined not only by the principal's strategy but also by a shift in teachers' paradigms regarding the meaning of academic supervision.

Academic supervision is a key strategy for ensuring the continued improvement of teachers' potential abilities and the quality of learning (Lorensius et al., 2022). Effective follow-up must be reflective, collaborative, and ongoing, and supported by a shared commitment between the principal and teachers. With this approach, academic supervision can function optimally as an instrument for teacher professional development and strengthening the quality of education in schools.

More importantly, the findings of this study contribute to the development of a conceptual understanding of academic supervision as a cyclical professional learning model. The results indicate that effective supervision operates through an iterative cycle consisting of supervision planning, collaborative implementation, and systematic follow-up. These three interconnected stages form a continuous professional learning loop that enables teachers to reflect on instructional practices, receive constructive feedback, and improve their pedagogical strategies over time. By positioning academic supervision as a cyclical process rather than a linear administrative activity, this study provides a theoretical contribution to the literature on instructional leadership and teacher professional development. The proposed cyclical supervision model highlights how sustained interaction between principals and teachers can foster reflective practice, strengthen professional competence, and promote continuous improvement in teaching and learning.

4. Conclusion

This study concludes that principals' academic supervision plays a strategic role in optimizing teachers' potential as educators in three schools in Banda Aceh. The findings indicate that academic supervision becomes effective when implemented as a continuous and integrated process encompassing planning, implementation, and follow-up stages. At the planning stage, principals develop supervision programs based on teachers' needs analysis and learning evaluation results, allowing supervision objectives, instruments, approaches, and schedules to be more targeted and relevant to teachers' professional development. In the implementation stage, a collaborative supervision approach proves more effective than directive and non-directive approaches because it encourages professional partnerships between principals and teachers, supports reflective dialogue on teaching practices, and strengthens teachers' pedagogical and professional competencies. Furthermore, systematic follow-up through individual and group coaching, internal training, and ongoing professional reflection helps teachers address instructional weaknesses, enhance their teaching capacity, and adapt to evolving educational demands and learning technologies. Overall, academic supervision that is well planned, collaboratively implemented, and consistently followed up contributes not only to improving teachers' instructional performance but also to fostering a culture of professional learning in schools, thereby reinforcing the role of academic supervision as a key instrument of principals' instructional leadership in improving educational quality.

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Data Availability

The datasets generated during and/ or analyzed during the current study are available from the corresponding author on reasonable request.

Declaration on AI Use

The authors declare that no artificial intelligence (AI) or AI-assisted tools were used in the preparation of this manuscript.

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