

Quality Management of Academic Supervision by Principals in Improving Elementary School Teachers' Performance: A Qualitative Study at SD IT Matahati and SD Al-Falah Boarding School, Bandung Regency

Syatiri Ahmad*, H Hanafiah, Endang Koswara, R. Supyan Sauri

Universitas Islam Nusantara, Bandung, Indonesia

*Corresponding Email: ahmadsyatiri9@gmail.com

Abstract. The gap that occurs in elementary schools is related to the principal's academic supervision between performance demands that are still suboptimal. However, the function of the principal's academic supervision in improving the performance of elementary school teachers remains suboptimal. This study aimed to determine and analyze the planning, implementation, evaluation, follow-up, constraints, and solutions for improving the performance of elementary school teachers. The approach used was a descriptive qualitative method with data collection techniques through observation, interviews, documentation studies, and triangulation. The results of this study show that (1) the principal's academic supervision planning is based on objectives, making supervision schedules, compiling supervision instruments, and analyzing schoolwork programs; (2) implementation through classroom visits, classroom observations, and providing learning tools; and (3) evaluation consisting of mastery of material and communication with students. (3) Evaluation, consisting of mastery of material, communication with students, types and evaluation techniques; (4) follow-up, enrichment, improvement, coaching, reflection and reporting; (5) obstacles, namely the lack of linear education personnel, inadequate facilities, and late payment of tuition fees for some students; (6) solutions for human resources, namely the procurement of teachers who are in accordance with the needs of elementary schools, namely PGSD graduates and training such as in-house training (IHT), seminars, and workshops in developing teacher soft skills. Facilities and infrastructure solutions, namely procurement of new classes and adequate fields for teaching and learning activities. The financing solution is the school's cooperation with student guardians in terms of tuition payments and home visits when payments are due with a prior notification letter from the school. billing either in the form of a certificate, informing via wa or telephone, and finally, through home visits to student guardians for those who are late in paying.

Keywords: Principal, Teacher Performance, Academic Supervision Management

1 Introduction

Academic supervision is a series of activities of school principals in helping teachers develop their abilities; therefore, in its implementation, it is necessary to first assess teacher abilities so that aspects that need to be developed and how to develop them can be determined. However, one thing that needs to be emphasized here is that assessing

teacher performance does not mean that the task or activity of academic supervision is complete but must be continued with the design and implementation of capacity building. According to Carl D. Glickman, academic supervision is an effort made by the principal as a supervisor in assisting and directing all educational devices to achieve educational goals properly. Academic supervision helps teachers develop the ability to manage the learning process to achieve learning goals [1]. Permendiknas Number 13 of 2007 concerning principal standards and Permendiknas Number 12 of 2007 concerning school/Madrasah supervisor standards explained that the principal's supervision duties include the task of planning academic supervision programs for teachers using appropriate supervision approaches and techniques and following up on the results of teachers' academic supervision to improve professionalism. A good principal is not only a good planner but also a good implementer and mentor of teachers. Sergiovani in the Ministry of National Education mentioned the three objectives of academic supervision as follows: Academic supervision is organized with the intention of helping teachers develop their professional abilities in understanding academics, classroom life, developing their teaching skills, and using their abilities through certain techniques; academic supervision is organized with the intention of monitoring the teaching and learning processes in schools. This can be done through visits to classrooms by the head of the kindergarten, while the teacher teaches private conversations with the teacher, his/her peers, and students. Academic supervision is organized to encourage teachers to apply their abilities in carrying out their teaching tasks, to encourage teachers to develop their own abilities, and pay serious attention to their duties and responsibilities [2], [3].

Permendikbudristek No. 40 of 2021, concerning the assignment of teachers as school principals, mandates that a school principal must have a predetermined competency standard. One effective way to improve the quality of education is through the roles of principals and teachers. Therefore, the role of the principal in conducting supervision is very important in the implementation of education, because principals and teachers directly interact with students during the teaching and learning process. Therefore, the principal's task of supervision is at the forefront of improving the quality of education. The role of academic supervision by principals and professional teachers in schools is very large because supervision carried out by principals continuously can improve the quality of learning, which in turn can improve the quality of education in Indonesia.

This study aims to provide a clear and comprehensive exploration of quality management in academic supervision conducted by elementary school principals, with a particular focus on its effectiveness in improving teacher performance. Specifically, the research objectives are formulated to: (1) Examine the current conditions and practices of academic supervision management by principals, including planning, implementation, evaluation, and follow-up activities. (2) Identify the existing gaps and obstacles within the supervision process that hinder optimal teacher development and performance improvement. (3) Propose practical and theoretically grounded solutions or strategies to overcome identified challenges and enhance the quality of academic supervision [4], [5]. By distinctly separating these goals, the study ensures a thorough analysis that not only describes the present supervisory landscape but also critically assesses deficiencies and recommends actionable improvements targeted at elevating teacher professionalism and educational quality in primary schools.

Suggests that quality management is performance improvement, where quality can be controlled through *continuous* process improvement. Management is related to efforts to achieve certain goals by maximizing the resources available in an organization. In general, management can be interpreted as all activities carried out by one or more people in a group, organization, or institution to achieve a set goal [6]. The management functions in PDCA include planning (*plan*). The initial function of management is planning. Planning is an activity process that systematically presents all activities that will be carried out to achieve certain goals.

Planning is the process of determining the goals of the organization (company) and then clearly presenting (articulating) the strategies (programs), tactics (procedures for implementing programs), and operations (actions) needed to achieve the company's overall goals [5]. The implementation (*Do*) in the movement serves to realize the results of planning and organizing. This definition is the third function of management. This is a fundamental function of management as a follow-up to the planning function. Evaluation (*check*) Evaluation is an activity to observe and measure all operations and the achievement of results by comparing the standards seen in the previous plan. The evaluation function ensures that all activities run in accordance with the policies, strategies, plans, and decisions in the work program that have been analyzed, formulated, and determined previously. Follow-up (*Act*), Deming in Nurhayati (2013:50) suggests that follow-up is a phase that signifies the culmination of planning, testing, and analysis of whether the desired improvements are achieved as articulated in the statement of purpose, and the goal is to *act* on what has been learned.

Teacher performance is one of the factors that measure the success of a school. Performance is achievement, work, or performance. Teacher performance is the result of teacher work that is reflected in planning, implementing, and assessing the process of teaching and learning activities whose intensity is based on work ethics, as well as teacher professional discipline in the learning process. The work results must also be high. The role of teachers as educators is the main pillar in achieving national education goals.

In 2017, in mapping school competencies, the Ministry of Education and Culture held a principal competency test that was attended by 209,907 principals from several levels and tenures that had been carried out by the principal. The average value of 3 (three) principal competencies is 56.37, for managerial 58.55, for learning supervision is 51, 81, and for the entrepreneurial dimension 58.75. Based on the average measured in the principal competency test, the supervision dimension gets the lowest score among the other two, namely, managerial and entrepreneurship. These data indicate that the ability of school principals to conduct academic supervision is still low and needs attention to improve the competence of school principals.

The quality of Indonesian teachers is still worrying. From the teacher competency test of around 1.6 million teachers, the results are not encouraging because most of the scores are below 50 out of a maximum score of 100. In fact, there are almost 130,000 teachers with scores between 0 and 30. The teachers whose teacher competency test results are above 60 are only around 200,000 teachers. Sumarna Surapranata, Director General of Teachers and Education Personnel (Director General of GTK) said that the UKG results were a real portrait of the quality of teachers. The reality is that the condition of teachers remains difficult. Therefore, the UKG results are an important basis for

designing teacher education and training programs that are appropriate for each teacher. This shows that the quality of teachers' knowledge in Indonesia remains low.

Principals are preoccupied with managerial activities and school administration, so the implementation of supervision is limited to collecting and checking administration alone and has not led to the maximum development of teacher competence and teacher performance. However, if we look back at the purpose of academic supervision itself, it should be able to solve the obstacles faced by teachers in the learning process. Through supervision carried out by the principal, it should be possible to use this time to improve their performance, and the principal can minimize the obstacles faced by teachers. Therefore, it needs to be researched so that objective data can be found, and alternative solutions can be determined.

The researcher intends to conduct research on the quality management of the principal's academic supervision in improving the performance of elementary schools, exploring information about the quality management of the principal's academic supervision in the school. From the information obtained, the researcher conducts an assessment and analysis using the theories that the researcher has obtained to provide an overview of the quality management of the principal's academic supervision in improving the performance of elementary schools.

2 Method

This research employs a qualitative research approach, which aims to produce descriptive data in the form of written or spoken words from observed individuals and their behaviors [7]. The qualitative approach is particularly useful for gaining a holistic understanding of individuals and their experiences, allowing researchers to explore deeper insights into the subject matter. This study focuses on understanding the dynamics of supervisory academic management at SD IT Matahati and SD Al-Falah Boarding School in Bandung Regency, with school principals and teachers serving as the primary subjects of the research.

Research Design: This study uses a descriptive qualitative design to explore in depth the quality management of academic supervision implemented by school principals and its effectiveness in improving teacher performance. The design emphasizes understanding processes, perceptions, and practices related to supervision management in the natural context of the schools studied [8].

This study is underpinned by the quality management principles as articulated in Deming's Plan-Do-Check-Act (PDCA) cycle, which provides a systematic approach to continuous improvement. The integration of PDCA in educational supervision affirms the cyclical process of planning academic supervision (Plan), implementing supervisory actions (Do), evaluating results (Check), and executing follow-up improvements (Act). This model effectively structures the management of academic supervision to enhance teacher performance through iterative quality enhancements [4], [5].

Additionally, the study draws upon established educational management theories emphasizing instructional leadership, which positions principals as change agents responsible for fostering teacher development and improving learning outcomes [9], [10]. The theoretical lens facilitates an understanding of supervision not merely as administrative oversight but as a dynamic process of capacity building. The research integrates

these management and educational theories to justify its analytical framework and to propose solutions that align with proven practices in education quality assurance. By doing so, it ensures the study's findings and recommendations are grounded in robust theoretical constructs relevant to school leadership and supervision.

Data Collection Methods: The data collection combines multiple methods to ensure comprehensive and valid information [7]. These include:

1. **Observation:** Conducted classroom visits and supervision activities observation to capture real-time supervisory practices, teacher behavior, and interactions during the learning process.
2. **In-depth Interviews:** Semi-structured interviews were performed with school principals and elementary school teachers. Interviews aimed to collect rich qualitative data on participants' perceptions, experiences, challenges, and strategies regarding academic supervision and quality management.
3. **Documentation Studies:** Analysis of relevant school documents such as supervision schedules, evaluation reports, supervision instruments, meeting minutes, and school performance data to triangulate interview and observation data.
4. **Triangulation:** Multiple data sources and methods were used to cross-validate findings and reduce potential biases associated with single methods.

Validity and Reliability: To ensure the trustworthiness of the findings, several strategies were implemented:

1. **Credibility:** Data triangulation, prolonged engagement during observation, and member checking were used. Member checking involved sharing findings with participants to verify the accuracy of interpretations.
2. **Transferability:** A rich, detailed description of the research context and participant characteristics was provided to allow readers to assess applicability to other contexts.
3. **Dependability:** An audit trail documenting the research process, data collection, and analysis procedures was maintained to enhance transparency.
4. **Confirmability:** Reflexivity was practiced by researchers to minimize subjective biases, and data were cross-checked among multiple researchers to ensure objective analysis.

Together, these rigorous qualitative methods and validity strategies support dependable and meaningful conclusions about the effectiveness and quality management of academic supervision practiced by school principals.

3 Result

3.1 Principal Academic Supervision Planning Principal Academic Supervision Planning

Planning is the initial function of the management cycle, which plays an important role in determining the direction and strategy of implementing academic supervision in schools. Planning is a systematic process that aims to organize the steps to be implemented to achieve certain goals. In the context of academic supervision, planning becomes the main foundation for principals to ensure that supervisory activities can be run effectively and efficiently in accordance with the needs of the school. As stipulated

in the Minister of National Education Regulation No. 13/2007 on School/Madrasah Principal Standards, one of the competencies that principals must have been the ability to supervise coach teachers in classroom management and learning administration based on education quality management in schools.

The academic supervision planning carried out by SD IT Matahati Bandung Regency and SD Al-Falah Boarding School includes several main stages. The first stage involved determining the objectives of supervision. The objectives of supervision in both schools are focused on improving teachers' competencies in implementing an effective learning process, creating a conducive learning environment, and ensuring the achievement of the established education quality standards. By setting clear objectives, supervision can be focused on overcoming existing problems and providing applicable solutions for teachers in carrying out their duties [8], [11]–[13].

The next stage in supervision planning is preparation of the supervision schedule. The schedule is structured so that the supervision process can occur continuously and does not interfere with the smooth running of the learning activities. The supervision schedule is organized in such a way that it covers all important aspects that need to be supervised, such as the learning planning process, implementation in the classroom, and evaluation carried out by teachers on students. With a structured schedule, supervision can be carried out systematically and ensure that all teachers receive equal attention in their professional development (Hasnadi, 2021; Rahmadi et al., 2023; Walean et al., 2023).

In addition, supervision planning in both schools includes the preparation of supervision instruments. Supervision instruments serve as tools to measure and evaluate teacher performance objectively and purposefully. This instrument covers various aspects, such as material mastery, use of learning methods, classroom management, and teacher interaction with students. The preparation of supervision instruments is done by referring to the national education standards and the specific needs of each school to ensure that supervision can provide an accurate picture of the quality of learning that takes place [5], [9].

With a well-thought-out supervision plan, SD IT Matahati Bandung Regency and SD Al-Falah Boarding School can conduct academic supervision in a targeted and measurable manner. This planning also allows schools to identify the challenges that they may face and design strategies to overcome them proactively. Thus, academic supervision in these two schools can run effectively in supporting the improvement of learning quality and teacher professionalism [1], [5], [15].

3.2 Implementation of the Principal's Academic Supervision

The implementation of academic supervision is an important stage in the education management cycle, which aims to realize the results of planning and organizing that have been designed previously. In management concepts, this stage is known as “Do,” which is the third function in the management cycle after planning and organizing. This implementation function plays a fundamental role in ensuring that all supervision plans and strategies can be implemented properly in the field to achieve set goals. Academic supervision implemented by SD IT Matahati Bandung Regency and SD Al-Falah Boarding School is oriented towards improving the quality of learning that takes place

in schools with the main objective of improving teacher competence in the learning process [10], [16], [17].

Based on Government Regulation No. 19/2005, supervision is classified into two types: academic and managerial. Academic supervision aims to improve teachers' competence in designing and implementing effective learning, whereas managerial supervision focuses more on overall school management to ensure effectiveness and efficiency in education delivery. In the context of implementing academic supervision at SD IT Matahati and SD Al-Falah Boarding School, the approach used refers to academic supervision, where the principal and supervision team aid and direct teachers to carry out their duties in the classroom.

The stages of implementing academic supervision that have been carried out in these two schools consist of several main activities. First, the classroom visit, which is an initial observation activity that aims to see firsthand how the learning process takes place before supervision is conducted. This visit provided an initial overview of classroom conditions, teaching methods used by teachers, and the level of learner engagement in learning. From the results of the classroom visit, the supervision team can identify areas that need special attention in further supervision [18], [19].

In addition to visits and observations, academic supervision at SD IT Matahati and SD Al-Falah Boarding School also included the provision of learning tools. The availability of adequate learning tools is an important factor in supporting the effectiveness of supervision. The tools provided included a syllabus, lesson plans, learning media, and evaluation instruments. With the existence of structured and standardized learning tools, teachers can easily prepare and implement a quality learning process in accordance with the needs of students.

Overall, the implementation of academic supervision in both schools was conducted using a comprehensive and sustainable approach. The steps that have been implemented aim to ensure that supervision is not just a formality, but rather a process that truly contributes to improving the quality of learning. Thus, academic supervision in SD IT Matahati Bandung Regency and SD Al-Falah Boarding School is expected to create a more effective learning culture and positively impact the development of teacher competencies and student learning outcomes.

3.3 Evaluation of Principal's Academic Supervision

The evaluation of academic supervision carried out by SD IT Matahati Bandung Regency and SD Al-Falah Boarding School aims to determine the extent to which the implementation of supervision has achieved the expected progress. This evaluation is an important part of the academic supervision cycle to ensure the effectiveness of supervision implementation and provide valuable feedback for improving teaching quality and teacher professionalism. The main purpose of this evaluation is to evaluate the achievements of supervision based on predetermined indicators and to determine which aspects still need improvement and strengthening.

The evaluation process of academic supervision includes several important aspects that measure the success of the implementation of supervision. The evaluation aspects used included mastery of material, communication with students, a high sense of responsibility, and the effectiveness of the learning process. Material mastery is an important indicator that reflects the extent to which a teacher can deliver learning with a

deep understanding and is relevant according to the curriculum. Communication with learners is also a major concern in evaluation, as effective communication can create a conducive learning environment and increase student participation in the learning process. In addition, the evaluation also covers teachers' sense of responsibility in carrying out their duties professionally and the effectiveness of supervision in having a positive impact on improving the quality of learning in schools [17].

Within the framework of supervision evaluation, the concept of "Check" as described in Deming's quality management cycle, is an important part of this process. Evaluation is an activity that aims to observe and measure all supervision activities and the achievement of results by comparing them to the standards formulated in previous planning. The main function of this evaluation is to ensure that all supervisory activities run in accordance with the policies, strategies, and work plans that have been analyzed, formulated, and determined previously. Thus, the evaluation results can be used to identify existing gaps and design more effective corrective measures.

The implementation of academic supervision evaluation in these schools is also based on Minister of National Education No. 13 of 2007 on Qualification and Competency Standards for School Principals. This regulation serves as a reference in setting standards for supervision evaluation that is comprehensive and oriented towards improving the quality of education. The evaluation of academic supervision is not just an administrative activity, but a process that provides important information to be used as the basis for strategic decision-making to improve teacher professionalism. Through systematic evaluation, it is expected that all aspects of learning at SD IT Matahati Bandung Regency and SD Al-Falah Boarding School will continue to improve.

Through a comprehensive academic supervision evaluation, schools can ensure that the learning process takes place optimally and in accordance with predetermined standards. This evaluation is also a means to strengthen teachers' capacity to meet professional standards and encourage the creation of a culture of quality in the school environment. Improvement efforts made based on the evaluation results will have a positive impact in the long term, both for teachers, students, and the entire educational ecosystem at school.

3.4 Follow-up of Principal's Academic Supervision

The follow-up of academic supervision conducted by SD IT Matahati Bandung Regency and SD Al-Falah Boarding School consisted of several important stages, namely enrichment, improvement, coaching, reflection, and reporting. This follow-up study aimed to ensure that all recommendations resulting from supervision could be implemented effectively to improve the quality of learning in schools. states that follow-up is the culminating stage in the planning, testing, and analysis cycles. In this phase, an evaluation is conducted to determine whether the desired improvements have been achieved in accordance with previously formulated objectives. Therefore, follow-up in academic supervision is a strategic step that aims to improve the quality of education through a series of continuous and systematic processes [13].

The enrichment stage of follow-up supervision focused on deepening and enriching teachers' understanding of more effective learning materials and methods. This enrichment can be achieved through further training, group discussions, and the use of technology in learning to support teachers' teaching skills. Meanwhile, improvement

focuses on aspects that still need to be improved, such as material delivery techniques, classroom management, and the use of learning media that are more interactive and in accordance with the needs of students. In this process, teachers are encouraged to continuously improve the quality of their professionalism in accordance with the demands of the curriculum and the times [20], [21].

Coaching is conducted as a preventive and proactive measure to ensure that all teachers and educational personnel understand their roles and responsibilities in realizing effective learning. Coaching can take the form of mentoring by supervisors or principals, which aims to provide moral and technical support to teachers so that they are better prepared to face challenges in the learning process. Reflection is a crucial stage in the follow-up of academic supervision, where all parties involved evaluate the results that have been achieved and the steps that have been implemented. This reflection is important for understanding what has gone well and what still needs to be improved, so that learning objectives can be achieved optimally.

As the final stage of academic supervision, reporting is an important part of documenting the entire process. This report includes the findings of the supervision, steps taken, and recommendations for continuous improvement. This reporting not only serves as a form of academic accountability but also as a basis for follow-up planning in the next academic supervision.

The follow-up of academic supervision is regulated in the Law of the Republic of Indonesia Number 14 of 2005 on Teachers and Lecturers, which in Article 1, Paragraph 1 states that teachers are professional educators with the main tasks of educating, teaching, guiding, directing, training, assessing, and evaluating students in early childhood education, basic education, and secondary education. This law is the legal basis for the implementation of academic supervision as part of efforts to develop teacher professionalism. In addition, government regulations governing the follow-up of academic supervision also serve as guidelines for determining concrete steps that must be taken to ensure an overall improvement in the quality of education.

With systematic follow-up, it is expected that academic supervision at SD IT Matapati Bandung Regency and SD Al-Falah Boarding School will run effectively and have a positive impact on improving the quality of learning. This is in accordance with the principle of continuous improvement, where academic supervision is not only evaluative but also a continuous process to achieve better quality education.

3.5 Principal's Academic Supervision Constraints and Solutions

Academic supervision is an important element in improving the quality of education in primary schools. However, in its implementation, there are various obstacles faced by schools. The main obstacles in academic supervision include the lack of educators who have linear qualifications in the fields taught, limited learning facilities that are not yet adequate, and the delay in payment of tuition fees by some students. The lack of educators in accordance with their fields has an impact on the effectiveness of the learning process and optimal academic supervision. However, inadequate facilities such as a limited number of proper classrooms, supporting facilities such as learning media, and technology infrastructure are also obstacles in creating a conducive learning environment.

To overcome obstacles related to human resources (HR), concrete efforts are needed, such as recruiting educators with a background in elementary school teacher education (PGSD) to match curriculum needs. In addition, increasing teacher competence is a strategic step that must be carried out on an ongoing basis, both through internal training such as In-House Training (IHT), seminars, and workshops aimed at improving the soft and hard skills of educators. These programs not only aim to improve teachers' pedagogical understanding, but also to strengthen managerial skills in handling various challenges in the school environment [22]–[24].

In terms of facilities and infrastructure, schools must strive to provide adequate facilities to support effective teaching and learning activities. These facilities include representative classrooms, adequate laboratories, educational technology devices such as computers and projectors, and libraries that provide relevant academic references. Efforts to improve these facilities can be made through cooperation with various parties, such as school committees, donors, and targeted utilization of school operational assistance (BOS) funds.

Financing constraints due to the late payment of tuition fees by some students is also a challenge that affects the continuity of school operations. Solutions that can be applied to overcome this problem include taking a persuasive approach towards parents or guardians. Schools can start by sending an official notification letter about the payment due date, followed by communication through media such as WhatsApp or telephone to remind parents personally. If these efforts have not produced results, the last step is to conduct home visits to students' homes to discuss them directly and find the best solution that does not burden the school or parents. With these strategic steps, it is hoped that academic supervision will run more optimally and positively impact the quality of education in primary schools.

4 Discussion

Interpretation of Results: academic supervision by school principals plays a crucial role in improving teacher performance and educational quality. However, evidence suggests significant challenges in the effectiveness of academic supervision conducted by principals in elementary schools.

This study highlights that school principals face difficulties in conducting effective academic supervision, which is supported by both empirical data and prior research. For instance, a large-scale competency test conducted by the Ministry of Education and Culture in Indonesia in 2017 revealed that among the three principal competencies tested (managerial, learning supervision, entrepreneurial), the learning supervision dimension received the lowest average score (51.81) compared to managerial (58.55) and entrepreneurial (58.75) competencies (Ministry of Education, 2017). This empirical data underscores the relative weakness in principals' supervision skills.

Moreover, observation and interview data collected directly from SD IT Matahati and SD Al-Falah Boarding School in Bandung Regency reveal that principals struggle to implement academic supervision beyond administrative checks, limiting their ability to fully develop teacher competence and performance. These qualitative findings are consistent with the low supervision competency scores evidenced in national assessments.

In support, previous studies such as [5], [17] confirm that many principals face challenges in transforming supervision into a structured, need-based developmental process for teachers. Additionally, [9] emphasizes the necessity of continuous and active principal involvement in supervision to improve the quality of learning.

Thus, the claim about the difficulty faced by principals in effective academic supervision is validated through multiple data sources: national quantitative competency tests, direct qualitative observations and interviews within the schools studied, and corroborating findings from existing literature. This triangulation of evidence highlights the urgent need for improving the quality and effectiveness of academic supervision implemented by principals.

Comparative Analysis: While this study underscores the critical role of academic supervision in improving teacher performance, it also acknowledges the existence of alternative supervision models and international best practices that could enhance effectiveness. Globally, models such as instructional coaching, peer coaching, and collaborative supervision have gained prominence, emphasizing collaborative reflection, formative feedback, and ongoing professional learning communities [10], [16]. For example, the instructional coaching model prioritizes personalized, job-embedded support tailored to individual teacher needs, which contrasts with traditional top-down supervision approaches.

Moreover, various countries have implemented multi-tiered supervision frameworks integrating teacher self-evaluation, peer feedback, and principal supervision to create more comprehensive and participatory systems [15]. These models tend to foster greater teacher autonomy and motivation, resulting in more sustainable professional development and improved instructional quality.

This study differentiates itself from existing literature by focusing specifically on the quality management cycle (Plan-Do-Check-Act) of academic supervision in the context of Indonesian elementary schools, exploring not only the activities involved but also the challenges and practical solutions tailored to local conditions. Unlike prior research mainly focused on secondary schools or managerial aspects, this study provides an in-depth qualitative examination of academic supervision processes directly linked to teacher performance improvement at the primary level.

Furthermore, its empirical grounding via direct observations, interviews, and document analysis within two distinct school settings offers granular insights into the operationalization of supervision and the contextual barriers limiting its optimal implementation. This localized, comprehensive approach adds valuable nuance to the discourse on supervision effectiveness and room for adaptive improvements.

In light of international practices, the study suggests that incorporating collaborative, formative, and continuous supervision elements could address current constraints and augment teacher professional growth. Recommendations include integrating peer coaching, fostering learning communities among teachers, and enhancing principal competencies in formative supervision techniques.

By doing so, the study provides a bridge between globally recognized supervision innovations and local school realities, offering actionable guidance for policymakers and educational leaders aiming to upgrade academic supervision in Indonesia's elementary education sector.

Implications: The findings of this study have important theoretical and practical implications. From a theoretical perspective, the results of this study support the concept of education quality management, particularly in the context of academic supervision implemented in accordance with the Plan, Do, Check, Act (PDCA) principle introduced by Deming. Systematically designed supervision enables Continuous Improvement in the quality of education, which is relevant to the principle of continuous improvement in education quality management.

Competency and Accountability of School Principals: This study refers to the 2017 principal competency test results which revealed relatively low scores in the supervision dimension compared to managerial and entrepreneurial competencies. This finding indicates a significant gap in school principals' ability to conduct effective academic supervision. To bridge this competency gap, the study proposes several strategic steps:

1. **Enhanced and Targeted Training Programs:** Existing principal training programs, including certification and continuous professional development, must place stronger emphasis on supervisory skills, particularly formative supervision, instructional leadership, and teacher coaching techniques. Tailored modules focusing on real classroom supervision scenarios can better prepare principals.
2. **Mentoring and Peer Collaboration:** Establishing structured mentoring systems where experienced principals guide less experienced ones in supervision practices can accelerate skill transfer. Additionally, forming principal learning communities can encourage exchange of effective supervision strategies.
3. **Regular Competency Assessment and Feedback:** Implementing periodic supervisory competence evaluations linked with personalized development plans can help maintain and improve principals' skills continuously.
4. **Integration of Supervisory Competency in Performance Appraisal:** Incorporating academic supervision effectiveness as a key metric in principal performance evaluations will enhance accountability and incentivize improvement.

Regarding the impact of current academic supervision training programs, the study found that while some principals have undergone formal training, the practical application of supervisory skills often remains limited due to generic training content, lack of follow-up support, and insufficient alignment with local school contexts. This gap suggests that current programs may not adequately equip principals with actionable supervisory competencies needed to overcome day-to-day challenges.

Consequently, there is a pressing need to revise training curricula to be more context-sensitive, hands-on, and sustained over time. Furthermore, monitoring and evaluation mechanisms for supervision training effectiveness should be strengthened to identify continuing gaps and adapt programs accordingly.

By addressing these competency and accountability issues through focused training reforms, mentoring, and performance management, the quality of academic supervision by school principals can improve substantially, ultimately enhancing teacher performance and student learning outcomes.

Practically, the implications of this study suggest that primary schools should pay more attention to the planning and follow-up aspects of supervision to ensure that these activities are not only evaluative but also promote the development of teachers' competencies. Therefore, practical recommendations include strengthening teachers' need-

based training and improving communication between principals and educators to support sustainable education quality improvement.

Policy Implications and Practical Recommendations: This study's focus on quality management in academic supervision aligns closely with Indonesia's national education policies, especially those set forth in Permendikbudristek No. 40 of 2021 and Permendiknas No. 13 of 2007, which emphasize principal competencies and continuous professional development for teachers. The findings reinforce the policy direction advocating for enhanced instructional leadership as a lever for improving teacher performance and educational outcomes.

Based on the research, the study offers several concrete, measurable, and actionable recommendations for policymakers, school administrators, and teacher training programs:

1. **Policy Integration:** Embed quality management principles such as the PDCA (Plan-Do-Check-Act) cycle explicitly within national guidelines for academic supervision, ensuring supervision is systematic, cyclical, and focused on continuous improvement rather than a one-time evaluation.
2. **Strengthening Principal Competency Development:** National and regional education authorities should design and implement targeted supervisory training modules that emphasize managing academic supervision processes effectively. These modules should include skills in planning supervision schedules, creating valid supervision instruments, conducting classroom observations, and performing evaluations followed by constructive feedback.
3. **Monitoring and Accountability Frameworks:** Establish comprehensive monitoring systems enabling education offices and school committees to regularly assess the effectiveness of academic supervision, using standardized tools and data-driven indicators tied to teacher performance improvements.
4. **Incentives and Support for Principals:** Introduce incentive schemes and supportive mechanisms to motivate principals to prioritize high-quality academic supervision. Support could also include mentoring, peer learning networks, and resource allocation to reduce managerial burdens that detract from instructional leadership.
5. **Alignment with Teacher Professional Development:** Teacher training institutions and in-service training programs should incorporate supervision-related competencies for both principals and teachers, promoting a culture where supervision leads to tangible improvements in teaching practices.
6. **Community Engagement in Financing and Facility Improvement:** In line with findings on financing and infrastructure constraints, policymakers should encourage school-level collaborations with communities and guardians for sustainable resource mobilization that supports academic supervision and teacher performance.

These recommendations provide a practical roadmap to operationalize the study's insights, enabling policymakers and school leaders to translate quality management concepts into actionable supervisory practices. This alignment ensures that academic supervision becomes a dynamic, consistent driver of teacher competence, ultimately enhancing overall education quality at the elementary level.

Research Limitations: Although the study has provided valuable insights, there are some limitations that need to be noted. One of the main limitations is that the scope of

the study was limited to two schools in Bandung Regency; therefore, the results of this study cannot be generalized to all primary schools with different conditions. Additionally, the qualitative research method allows for subjectivity in data analysis, which may impact the validity of the research results.

Another limitation is the lack of in-depth analysis of external factors that influence academic supervision, such as local education policies and parents' involvement in supporting teacher performance

improvement. Therefore, further research should include a quantitative approach and expand sample coverage to obtain a more comprehensive picture of the effectiveness of academic supervision in various school contexts.

5 Conclusion

The results of research on the quality management of principals' academic supervision in improving the performance of elementary school teachers show that planning academic supervision consists of implementing supervision, making a supervision schedule, compiling supervision instruments, and analyzing schoolwork programs. The implementation of academic supervision includes classroom visits, which are activities that aim to see the implementation of educator learning and students before supervision; classroom observations that aim to see teacher and student responses; and the provision of learning tools. The evaluation of academic supervision includes the purpose of evaluation, which aims to determine the extent to which the implementation of supervision has made progress, evaluation aspects consisting of mastery of material, communication with students, a high sense of responsibility, and effectiveness. The follow-up of academic supervision includes enrichment, improvement, coaching, reflection, and reporting. Obstacles to academic supervision include a lack of linear education personnel, inadequate facilities, and late payment of tuition fees for some students. HR solutions include the existence of educators who graduated from PGSD, training such as *in-house treaning* (IHT), seminars, and workshops in developing teachers' *soft skills*. Facilities and infrastructure solutions must have adequate facilities for teaching and learning activities, financing solutions conduct *home visits* when payment is due with a prior notification letter from the school, (3) billing either in the form of a certificate or informing via wa or telephone, and finally, through *home visits* to student guardians for those who are late paying.

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