

Principal Leadership Competence and Educational Quality Improvement in an Indonesian Islamic Senior High School

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Abstract

This study aims to examine the effectiveness of the principal's leadership competence in improving educational quality at MAN 1 Medan, with specific attention to personality, managerial, supervision, and social competence. This study employed a descriptive qualitative approach conducted in the natural context of a state Islamic senior high school in Medan, Indonesia. Data were collected through semi-structured interviews, non-participant observation, and documentation involving the principal, vice principals, administrative staff, and teachers as key informants. The data were analyzed through data condensation, data display, and conclusion drawing, while trustworthiness was ensured through source triangulation, technique triangulation, and verification of evidence across participants and documents. The findings reveal that the principal's personality competence was reflected in discipline, integrity, openness, emotional control, and role modelling, which contributed to teacher trust and a positive school climate. Managerial competence was demonstrated through program planning, task distribution, coordination, guidance, and monitoring, which strengthened administrative order and institutional program implementation. Supervision competence was evident in classroom observation, teacher guidance, and instructional feedback, although systematic follow-up after supervision still requires improvement. Social competence was reflected in the principal's ability to build communication and collaboration with teachers, parents, school committees, and external institutions, thereby enhancing stakeholder trust and support for school development. This study concludes that the integration of personality, managerial, supervision, and social competence enables the principal to support teacher professionalism, instructional readiness, administrative effectiveness, and educational quality improvement. The implication of this study is that madrasah quality assurance should prioritize continuous leadership development, reflective academic supervision, data-based program evaluation, and collaborative stakeholder engagement to strengthen sustainable school improvement.

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Introduction

Educational quality has become a central concern in contemporary school governance because schools are no longer expected merely to deliver curriculum content, but also to produce graduates who are academically competent, morally grounded, socially adaptive, and capable of responding to rapid social, technological, and policy changes. In this context, school quality is shaped by the interaction of several institutional components, including curriculum implementation, teacher professionalism, instructional supervision, student achievement, school culture, resource management, and stakeholder participation. Previous studies have consistently indicated that school improvement is not determined by one isolated factor, but by the capacity of school leaders to coordinate internal resources, strengthen teacher performance, and establish a learning environment that supports continuous improvement (Leithwood et al., 2020; Ozdogru et al., 2025;

Wu & Shen, 2022). Recent meta-analytic evidence also confirms that educational leadership has a meaningful effect on student achievement and school outcomes, indicating that leadership remains one of the most influential school-level variables after classroom teaching quality (Ahmad & Rochimah, 2021; He et al., 2024; Safrul, 2022).

Within school-based management, the principal functions as both an instructional leader and an organizational manager. As an instructional leader, the principal is responsible for directing the school's academic vision, supervising teaching practices, encouraging teacher professional development, and ensuring that learning processes are aligned with curriculum standards. As a manager, the principal must organize human resources, allocate facilities, coordinate administrative systems, and build collaborative relationships among teachers, students, parents, and external stakeholders. This dual role shows that principal leadership cannot be reduced to administrative authority, because effective leadership requires the integration of vision, personal integrity, managerial competence, academic supervision, and social responsiveness (Liu et al., 2021; Safrul, 2022; Sumarsono et al., 2025). Studies on instructional leadership further demonstrate that principals influence learning quality by shaping teacher professional development, strengthening professional learning communities, and creating school conditions that enable teachers to improve their classroom practices (Sumarsono et al., 2025; Widiastuty et al., 2022; Yenita & Andriani, 2025).

The role of principal leadership is particularly important in madrasah education, where school quality is expected to reflect not only academic achievement but also Islamic values, character formation, discipline, and community trust. Madrasahs operate within a distinctive educational culture that combines national curriculum demands with religious identity and moral education. Therefore, the leadership of a madrasah principal must address both managerial effectiveness and value-based educational development (Amin et al., 2025; Muslim et al., 2025; Sidiq & Saleh, 2025). Recent studies in Indonesian Islamic education contexts show that madrasah principals contribute to teacher professionalism, student learning achievement, school culture, and institutional reputation through strategic planning, teacher coaching, instructional supervision, and stakeholder collaboration (Muslim et al., 2025; Neliwati et al., 2024; Siagian et al., 2025). These findings suggest that leadership effectiveness in madrasahs should be understood through a holistic lens, because the principal's competence is reflected not only in policy implementation but also in the ability to mobilize teachers, maintain school discipline, facilitate professional development, and build public confidence in the institution.

In the Indonesian regulatory context, principal competence is generally associated with several core dimensions, including personality, managerial, entrepreneurial, supervision, and social competence. However, in many school-level studies, these dimensions are often discussed normatively or descriptively without sufficient attention to how they operate in everyday leadership practices. Personality competence, for instance, is not only related to moral conduct, but also to the principal's consistency, openness, emotional control, and ability to become a role model for teachers and students (Deliana et al., 2024; Harsoyo et al., 2019; Tran et al., 2021). Managerial competence is not merely about preparing school programs, but also about translating plans into coordinated action, distributing responsibilities, and evaluating institutional progress. Supervision competence involves more than classroom observation; it requires constructive feedback, follow-up assistance, and teacher capacity building. Social competence is also crucial because principals must establish partnerships with parents, committees, communities, and external institutions to support school

development (Ansori et al., 2021; Febyola et al., 2023; Tran et al., 2021). In this sense, principal competence should be examined as a practical and relational process rather than as a static administrative requirement.

Empirical research has shown that principal leadership contributes to teacher performance, professional motivation, and student achievement. Quantitative studies report that principal leadership has a significant relationship with academic achievement, teaching quality, and learning improvement (Harris et al., 2022; Pardosi & Utari, 2022; Tan, 2024). Qualitative studies also reveal that principals strengthen school quality through instructional guidance, teacher motivation, supervision, professional development programs, and collaborative decision-making (Ezzani, 2019; Kim & Lee, 2020; Sølvik & Roland, 2025). Nevertheless, much of the existing literature still tends to focus on general leadership styles, such as transformational, instructional, democratic, or visionary leadership, while fewer studies examine the effectiveness of principal leadership through specific competence dimensions in madrasah settings. Moreover, previous studies often emphasize measurable outcomes, such as student achievement or teacher performance, but provide limited explanation of how personality, managerial, supervision, and social competencies are experienced by school members and translated into quality improvement practices.

Based on these considerations, this study addresses an important gap in the literature. While previous studies have established that principal leadership is associated with school quality, there remains limited qualitative evidence explaining how the principal's competence operates contextually in a state Islamic senior high school, particularly through the integrated dimensions of personality, managerial, supervision, and social competence. The novelty of this study lies in its attempt to analyze principal leadership competence not only as a formal requirement, but as a lived leadership practice that shapes teacher performance, instructional readiness, professional development, school administration, and stakeholder trust in MAN 1 Medan. Therefore, this study aims to examine the effectiveness of the principal's leadership competence in improving educational quality at MAN 1 Medan, with specific attention to how personality, managerial, supervision, and social competencies are implemented and perceived by school stakeholders. The findings are expected to contribute theoretically to the discourse on madrasah leadership and practically to the improvement of leadership development, teacher supervision, and quality assurance in Islamic secondary education.

Method

This study employed a descriptive qualitative approach to examine the effectiveness of the principal's leadership competence in improving educational quality at MAN 1 Medan. A qualitative design was considered appropriate because the study aimed to explore leadership practices, stakeholder perceptions, and school quality improvement processes in their natural institutional context rather than to measure causal relationships statistically. Qualitative inquiry enables researchers to understand social phenomena through participants' experiences, meanings, and interpretations within real-life settings (Afandi et al., 2021; Ariyani et al., 2021; Aspers & Corte, 2019). The descriptive qualitative approach was also relevant because the study sought to provide a systematic and contextual explanation of how the principal's personality, managerial, supervision, and social competencies were implemented in daily school management and how these competencies

contributed to teacher performance, instructional readiness, professional development, administrative management, student achievement, and overall educational quality.

The research was conducted at MAN 1 Medan, located on Jl. Williem Iskandar No. 7 B, Sidorejo, Medan, Indonesia. This site was selected purposively because MAN 1 Medan represents a state Islamic senior high school with established institutional programs, school accreditation, teacher development activities, and leadership practices relevant to the focus of this study. Purposive site selection is commonly used in qualitative research when the selected setting is considered information-rich and closely aligned with the research problem (Busetto et al., 2020; Fauzi et al., 2024; Khanal et al., 2020). The participants were selected through purposive sampling based on their direct involvement in school leadership, instructional management, and quality improvement activities. The key informants consisted of the principal of MAN 1 Medan, vice principals, administrative staff, and teachers who were considered to have sufficient knowledge and experience regarding the principal's leadership practices and the development of educational quality in the school. The principal was involved as the main informant because of his strategic role in planning, implementing, supervising, and evaluating school programs. Vice principals and administrative staff were involved to provide institutional perspectives on managerial coordination, task distribution, administrative systems, and program implementation. Teachers were included to obtain information about academic supervision, professional development opportunities, classroom learning preparation, and the perceived impact of leadership on teaching performance.

Data were collected through semi-structured interviews, non-participant observation, documentation, and triangulation. Semi-structured interviews were used to explore participants' experiences, perceptions, and interpretations of the principal's leadership competence and its relationship with Castleberry and Nolen (2018), Deterding and Waters (2021), and Elliott (2018) educational quality improvement. This technique allows researchers to use predetermined guiding questions while still providing flexibility to probe participants' explanations in greater depth (Creswell & Creswell, 2022). The interview questions focused on four main leadership competence dimensions, namely personality competence, managerial competence, supervision competence, and social competence. Non-participant observation was conducted to examine school activities, leadership interactions, administrative practices, teacher preparation, and the general school environment. Observation is useful in qualitative research because it enables researchers to capture naturally occurring practices and contextual evidence that may not be fully expressed in interviews (Eldh et al., 2020; Gunadi, 2025; Köhler, 2024). Documentation was used to strengthen and verify interview and observation data through relevant institutional documents, such as school programs, supervision records, teacher administrative documents, professional development records, accreditation evidence, and other supporting documents related to school quality improvement. The use of multiple data sources strengthened the depth and credibility of the findings because triangulation enables researchers to compare evidence across sources, methods, and perspectives.

The data analysis followed an interactive qualitative analysis procedure consisting of data condensation, data display, and conclusion drawing or verification. This analytical framework is widely used in qualitative studies because it allows researchers to organize complex field data into meaningful categories and interpretive patterns. In the data condensation stage, raw data from interviews, observations, and documents were selected, coded, simplified, and categorized according to the main focus of the study. The data were then grouped into thematic categories related to the

principal's personality competence, managerial competence, supervision competence, social competence, and indicators of educational quality improvement. In the data display stage, the findings were arranged narratively to show patterns, relationships, and meanings emerging from the field data. The conclusion-drawing stage was carried out gradually by interpreting the meaning of the data, identifying recurring patterns, comparing evidence across informants, and relating the findings to the research objectives. This analytical process enabled the researcher to construct a comprehensive understanding of how leadership competence was practiced and how it contributed to quality improvement at MAN 1 Medan.

To ensure the trustworthiness of the research findings, this study applied four criteria of qualitative rigor: credibility, transferability, dependability, and confirmability. These criteria are widely recognized as important standards for evaluating the quality of qualitative research (Elliott, 2018; Erlina et al., 2025; Koderi et al., 2023; Lester et al., 2020; O'Connor & Joffe, 2020; Sufian et al., 2024). Credibility was maintained through source triangulation, technique triangulation, prolonged engagement with the research setting, and verification of information across participants. Transferability was supported by providing a detailed description of the research context, participants, and institutional setting so that readers may determine the relevance of the findings to other similar madrasah or school contexts. Dependability was strengthened by maintaining a systematic research procedure, including consistent data collection techniques, documentation of field notes, and transparent data analysis steps. Confirmability was ensured by grounding the interpretation in empirical evidence obtained from interviews, observations, and documents, thereby minimizing researcher subjectivity. Through these procedures, the study sought to produce findings that are credible, contextually grounded, and relevant to the discourse on principal leadership competence and educational quality improvement in Islamic secondary education.

Result and Discussion

Overview of Principal Leadership Competence at MAN 1 Medan

The findings indicate that the principal's leadership competence at MAN 1 Medan was reflected in four dominant dimensions: personality competence, managerial competence, supervision competence, and social competence. These dimensions emerged consistently from interviews with the principal, vice principals, administrative staff, and teachers, as well as from observational and documentary evidence. Overall, the principal was perceived as a leader who demonstrated personal integrity, maintained discipline, provided guidance to teachers and staff, conducted academic supervision, and built communication with internal and external stakeholders. Although several areas still required improvement, particularly time management, program optimization, and the consistency of supervision follow-up, the leadership practices implemented by the principal generally supported a positive school climate and contributed to educational quality improvement.

Table 1. Summary of Principal Leadership Competence at MAN 1 Medan

Leadership competence dimension	Key findings	Supporting evidence	Implication for school quality
Personality competence	The principal was perceived as disciplined, consistent, open, motivating, and able to act as a role model.	Interviews with the vice principal and teachers showed that the principal encouraged	Strengthened teacher trust, work discipline, and a positive institutional climate.

Leadership competence dimension	Key findings	Supporting evidence	Implication for school quality
		responsibility through example rather than command.	
Managerial competence	The principal planned school programs, distributed responsibilities, coordinated staff, and monitored program implementation.	Interviews with vice principals and administrative staff indicated that task division and coordination were relatively clear.	Improved administrative order, teamwork, and program implementation.
Supervision competence	The principal conducted classroom monitoring and provided feedback to teachers.	Teachers stated that the principal observed classroom activities and gave practical suggestions for instructional improvement.	Supported improvement in teaching practices and teacher professional awareness.
Social competence	The principal maintained communication with teachers, parents, school committees, and external institutions.	School stakeholders reported that the principal built relationships with parents and external partners.	Enhanced school reputation, stakeholder trust, and collaborative support for school programs.

Personality Competence

The first major finding concerns the principal's personality competence. The interview data show that the principal was perceived as a leader who demonstrated discipline, consistency, openness, patience, and responsibility in carrying out his leadership duties. The principal emphasized that leadership should begin with personal example rather than merely giving instructions. This view was supported by the vice principal for curriculum, who stated that the principal often motivated teachers by showing responsibility through his own actions. Teachers also perceived the principal as a leader who was firm but still humanistic in dealing with school problems.

The principal's personality competence was particularly evident in his ability to maintain emotional control and create a comfortable working atmosphere. When dealing with violations or institutional problems, the principal did not rely solely on authoritarian instruction but used a corrective and educative approach. This leadership style helped maintain teacher confidence and reduced psychological distance between the principal and school members. Such findings indicate that personality competence played an important role in building trust, discipline, and collective responsibility among teachers and staff.

Table 2. Evidence of the Principal's Personality Competence

Indicator	Empirical finding	Interpretation
Integrity and responsibility	The principal was perceived as giving examples before asking teachers to perform their duties.	Leadership was practiced through role modelling.
Openness	Teachers and vice principals reported that the principal was	Openness supported collegial interaction and reduced communication barriers.

Indicator	Empirical finding	Interpretation
Emotional control	willing to communicate and listen to school members. The principal was described as firm but not judgmental when handling problems.	Emotional maturity contributed to a positive work climate.
Motivation	The principal encouraged teachers to work responsibly and independently.	Motivation strengthened teacher commitment and professional awareness.

The findings in Table 2 indicate that the principal's personality competence became the foundation for other leadership functions. A principal who is perceived as responsible and open is more likely to gain the trust of teachers and staff. In the context of MAN 1 Medan, this personal credibility helped the principal mobilize school members, maintain discipline, and foster a sense of shared responsibility for improving educational quality.

Managerial Competence in School Program Implementation

The second finding relates to the principal's managerial competence. The data show that the principal implemented school management through program planning, task distribution, coordination, and evaluation. At the beginning of the academic year, school programs were discussed through meetings involving vice principals, teachers, and relevant staff. This participatory mechanism allowed school programs to be designed based on institutional needs and available resources.

The vice principals stated that the division of tasks in the school was relatively clear. Each unit had specific responsibilities, and coordination was maintained through regular communication. The principal also monitored the implementation of tasks and provided guidance when staff or vice principals faced difficulties. This was confirmed by the vice principal for student affairs and administrative staff, who explained that the principal often provided direction and reminders when there were problems in task execution.

Table 3. Managerial Practices Implemented by the Principal

Managerial aspect	Practice identified in the field	Contribution to educational quality
Program planning	School programs were planned through meetings at the beginning of the academic year.	Programs became more structured and aligned with school needs.
Task distribution	Responsibilities were divided among vice principals, teachers, and administrative staff.	Work processes became more coordinated and efficient.
Coordination	Regular communication was maintained to prevent misunderstanding among school units.	Coordination strengthened teamwork and program continuity.
Guidance and monitoring	The principal guided vice principals, teachers, and administrative staff in completing their duties.	Staff performance and administrative er were improved.
Evaluation	Program implementation was reviewed through meetings and informal monitoring.	Evaluation supported institutional improvement, although follow-up still needs strengthening.

As presented in Table 3, the principal's managerial competence contributed to the functioning of the school as an organized institution. The ability to plan, coordinate, and guide school members helped ensure that academic and administrative activities were implemented more systematically.

However, the findings also indicate that program optimization still requires improvement, especially in ensuring that all planned programs are followed by measurable evaluation and continuous follow-up.

Supervision Competence and Instructional Improvement

The third finding concerns supervision competence. The principal stated that academic supervision was conducted to monitor classroom learning and support teacher improvement. The supervision process was not intended to find teachers' mistakes, but to identify aspects of teaching that could be improved. Teachers confirmed that the principal observed classroom activities, monitored teacher performance, and provided suggestions after classroom observation.

The data show that supervision at MAN 1 Medan was implemented through classroom monitoring, review of teaching practices, and guidance for teachers. One teacher explained that the principal directly observed how teachers managed students and delivered lessons. Another teacher stated that the principal paid special attention to teachers who taught during the first lesson hour. These findings suggest that supervision was used as an instrument for maintaining teaching discipline and improving instructional quality.

Table 4. Qualitative excerpts of discourse and moderation indicators

Supervision component	Field evidence	Effect on teacher performance
Classroom observation	The principal visited classrooms and observed teaching activities.	Teachers became more aware of classroom management and instructional delivery.
Monitoring of teacher discipline	The principal monitored teachers, particularly during early lesson hours.	Teacher punctuality and instructional readiness were strengthened.
Feedback after observation	The principal provided practical suggestions after observing learning activities.	Teachers received input for improving teaching methods.
Use of supervision instruments	Supervision was supported by evaluation formats provided by school supervisors.	Supervision became more structured, although follow-up mechanisms need to be strengthened.

Table 4 shows that supervision competence had a direct relationship with instructional improvement. The principal's presence in classroom monitoring encouraged teachers to be more prepared and disciplined. However, the findings also suggest that academic supervision should be further strengthened through more systematic follow-up. Supervision will have a greater impact if it is not limited to observation but also includes mentoring, reflective discussion, professional development planning, and monitoring of teacher improvement after feedback is given.

Social Competence and Stakeholder Engagement

The fourth finding relates to the principal's social competence. The principal was perceived as active in building communication with internal and external stakeholders, including teachers, parents, school committees, and other institutions. The vice principal explained that the principal's ability to establish relationships with stakeholders contributed to the school's public image and community trust.

The findings also show that the principal encouraged collaboration with external institutions to improve teacher professionalism. Training programs and workshops were carried out through cooperation with educational institutions, government agencies, and professional groups. This

indicates that the principal's social competence was not limited to interpersonal communication, but also included institutional networking for school development.

Table 5. Forms of Social Competence in Supporting School Quality

Form of social competence	Evidence from the findings	Contribution to school improvement
Communication with teachers	The principal maintained interaction with teachers and encouraged responsibility.	Strengthened collegial relations and teacher motivation.
Collaboration with parents and school committee	The principal built relationships with parents and school stakeholders.	Increased community trust and support for school programs.
Cooperation with external institutions	The school collaborated with professional and educational institutions for teacher training.	Expanded professional development opportunities for teachers.
Sensitivity to school needs	The principal responded to teacher and staff needs through guidance and support.	Improved institutional responsiveness and work climate.

The evidence in Table 5 indicates that social competence functioned as an important leadership resource in strengthening institutional networks. By maintaining relationships with teachers, parents, and external partners, the principal was able to mobilize support for school development. This finding is important because educational quality improvement requires not only internal management but also external collaboration and stakeholder participation.

Educational Quality Improvement at MAN 1 Medan

The findings reveal that educational quality at MAN 1 Medan was reflected in several indicators, including teacher qualification alignment, instructional preparation, teacher professional development, administrative management, student achievement, and school accreditation. The principal stated that teachers generally taught subjects aligned with their academic competence. This statement was supported by teachers who confirmed that their educational background was relevant to the subjects they taught. Documentary evidence also showed that MAN 1 Medan had achieved "A" accreditation status, indicating that the school had met institutional quality standards.

In terms of instructional preparation, teachers were encouraged to prepare learning documents, including lesson plans, curriculum documents, and teaching materials. Some teachers developed their own instructional materials, while others adapted materials from external sources and adjusted them to the needs of MAN 1 Medan. The principal also provided guidance to teachers in preparing learning documents and encouraged participation in professional development activities, including training, workshops, and curriculum-related programs.

Table 6. Indicators of Educational Quality at MAN 1 Medan

Quality indicator	Main finding	Evidence source
Teacher qualification alignment	Most teachers taught subjects relevant to their academic background.	Interviews with the principal, vice principals, and teachers.
Accreditation status	MAN 1 Medan had achieved "A" accreditation.	School document observation.
Instructional preparation	Teachers prepared lesson plans and teaching materials, either independently or by adapting external sources.	Interviews and document review.

Teacher professional development	Teachers were given opportunities to join training, workshops, and curriculum development programs.	Interviews with the principal and teachers.
Administrative management	Teacher administration and school programs were guided and monitored by the principal.	Interviews with administrative staff and vice principals.
Student achievement	The school showed academic and non-academic achievement development.	Interviews and school program documentation.

Table 6 shows that educational quality at MAN 1 Medan was supported by both human resource readiness and institutional management. The alignment between teacher competence and subject assignment became an important foundation for instructional quality. In addition, the principal's support for teacher professional development helped strengthen teachers' capacity to respond to curriculum changes and instructional demands. However, the findings also indicate that not all teachers had equal opportunities or experiences in professional development, particularly in subject-specific training. This condition suggests the need for a more systematic and equitable teacher development program.

Relationship Between Leadership Competence and Educational Quality Improvement

The overall findings indicate that the principal's leadership competence contributed to educational quality improvement through several mechanisms. Personality competence created trust, discipline, and a positive work climate. Managerial competence supported program planning, task coordination, and administrative order. Supervision competence contributed to teacher discipline, instructional monitoring, and improvement of teaching practices. Social competence strengthened stakeholder engagement, institutional cooperation, and community trust.

Table 7. Linkage Between Principal Leadership Competence and Educational Quality Improvement

Leadership competence	Mechanism of influence	Quality improvement outcome
Personality competence	Role modelling, openness, motivation, emotional control	Positive school climate, teacher trust, and work discipline
Managerial competence	Planning, organizing, task distribution, monitoring	Better program implementation and administrative management
Supervision competence	Classroom observation, feedback, teacher guidance	Improved instructional readiness and teaching practices
Social competence	Communication, collaboration, external networking	Stronger stakeholder support and professional development opportunities

The linkage shown in Table 7 confirms that principal leadership competence operated as an integrated system. Each competence dimension contributed differently, but all were connected to the broader process of educational quality improvement. The findings suggest that the effectiveness of principal leadership at MAN 1 Medan cannot be understood only from one aspect, such as managerial ability or supervision practice. Instead, leadership effectiveness emerged from the combination of personal credibility, organizational capacity, instructional concern, and social networking.

In summary, the results demonstrate that the principal of MAN 1 Medan had implemented leadership competencies that supported educational quality improvement. The principal's leadership was evident in the ability to motivate teachers, coordinate school programs, supervise classroom learning, guide administrative work, and build collaboration with stakeholders. Nevertheless, the study also found several areas that require further strengthening, including time management, optimization of school programs, systematic follow-up of academic supervision, and

equal access to teacher professional development. These findings provide an empirical basis for understanding how principal leadership competence contributes to the improvement of educational quality in a state Islamic senior high school context.

Discussion

The findings of this study indicate that the principal's leadership competence at MAN 1 Medan is reflected through four dominant dimensions: personality competence, managerial competence, supervision competence, and social competence. These four dimensions contribute to the improvement of educational quality through teacher motivation, administrative order, instructional monitoring, professional development opportunities, and stakeholder collaboration. This finding strengthens the argument that educational quality improvement is not merely determined by curriculum implementation or teacher performance alone, but also by the principal's ability to integrate personal integrity, organizational management, instructional supervision, and social networking into daily school governance. In the context of MAN 1 Medan, the principal was perceived as a leader who provided role modelling, guided teachers and staff, monitored classroom learning, encouraged professional development, and maintained communication with parents and external institutions, as reflected in the field data of the original manuscript .

This finding is consistent with Leithwood et al. (2020), who emphasized that successful school leadership influences school improvement by setting direction, developing people, redesigning organizations, and improving instructional programs. The present study confirms this perspective by showing that the principal's leadership at MAN 1 Medan was not limited to administrative coordination, but also involved motivating teachers, building collective responsibility, and creating a supportive work climate. However, this study extends Leithwood et al.'s argument by placing leadership competence in the specific context of a state Islamic senior high school, where leadership effectiveness is also linked to moral example, religious values, teacher discipline, and public trust. Therefore, the findings suggest that school leadership in madrasah settings should be understood as both an instructional and value-based practice.

The results also support the meta-analytic conclusion of Wu and Shen (2022), which found that principal leadership is associated with student achievement and school outcomes. In the present study, leadership competence contributed to educational quality through indirect mechanisms, particularly by strengthening teacher performance, improving instructional readiness, supporting professional development, and maintaining administrative management. While Wu and Shen's study highlights the broader statistical relationship between principal leadership and school outcomes, this research provides qualitative evidence explaining how such a relationship operates in everyday school practices. The principal's supervision, guidance, and coordination became practical pathways through which leadership influenced the quality of teaching and institutional performance.

The finding related to supervision competence is also in line with studies on instructional leadership, which argue that principals play an important role in improving teacher professional development and classroom practices. He et al. (2024) reported that principals' instructional leadership can predict and strengthen teachers' professional development, especially when school leaders provide academic direction, monitor teaching, and create opportunities for teacher learning. Similarly, this study found that the principal of MAN 1 Medan conducted classroom observation, monitored teacher discipline, and provided feedback to improve teaching practices. Nevertheless,

the current study also reveals an important limitation in practice: supervision still needs a more systematic follow-up mechanism. This means that classroom observation alone is insufficient if it is not followed by mentoring, reflective discussion, and continuous professional development planning.

The findings further correspond with Harsoyo et al. (2019) study on madrasah principal leadership, which reported that madrasah principals contribute to teacher performance and student learning achievement through leadership practices, observation, interviews, documentation, and credibility-based qualitative procedures. Similar to that study, the present research shows that the principal's leadership in a madrasah context is strongly related to teacher motivation, instructional preparation, and school quality improvement. However, this study offers a more specific contribution by analyzing leadership competence through four integrated dimensions: personality, managerial, supervision, and social competence. This integrated competence-based analysis provides a more detailed explanation of how leadership is enacted in the daily governance of MAN 1 Medan.

The findings are also comparable to the study by Donkoh et al. (2023), which showed that principal leadership can improve school quality through strategic performance implementation, teacher training, institutional adjustment, accreditation improvement, increased student enrollment, and achievement development. The present study similarly found that the principal contributed to educational quality by supporting teacher professional development, strengthening administrative systems, and encouraging school programs. Both studies indicate that leadership effectiveness becomes visible when the principal is able to translate vision into concrete institutional programs. However, unlike Amelia and Siahaan's study, which emphasizes school quality improvement through performance implementation and accreditation outcomes, the present study focuses more specifically on how leadership competence is perceived and experienced by school stakeholders in a madrasah environment.

The results also strengthen Zaini and Syafaruddin (2020) finding that madrasah principal leadership behavior can improve teacher professionalism through activity programs such as training and professional development. At MAN 1 Medan, the principal provided opportunities for teachers to participate in workshops, curriculum training, and professional development activities. This confirms that one of the most important functions of principal leadership is to create access for teachers to improve their professional capacity. However, this study also found that not all teachers had equal access to subject-specific professional development, indicating that teacher development programs need to be more systematic, inclusive, and based on individual teacher needs. Thus, the principal's managerial and social competence should be strengthened not only to provide training opportunities, but also to design sustainable professional development mapping.

In addition, the finding concerning social competence is relevant to studies emphasizing stakeholder engagement and collaborative leadership in school quality improvement. The principal of MAN 1 Medan was perceived as able to communicate with teachers, parents, school committees, and external institutions. This finding supports the view that school quality improvement requires collaborative networks, not only internal school management. In madrasah settings, stakeholder trust is especially important because the institution carries both academic and moral responsibilities. Therefore, the principal's ability to build communication with the community contributes to school reputation, parental confidence, and external support for institutional development. This finding suggests that social competence should not be treated as a secondary leadership attribute, but as a strategic competence for sustaining school improvement.

The novelty of this study lies in its integrated analysis of principal leadership competence in a state Islamic senior high school context. Previous studies have often discussed principal leadership through general leadership styles, such as transformational, instructional, democratic, or visionary leadership. In contrast, this study focuses on how four specific competence dimensions personality, managerial, supervision, and social competence operate together in supporting educational quality improvement at MAN 1 Medan. The study also contributes by showing that leadership competence in madrasah is not merely administrative or instructional, but also relational, moral, and contextual. The principal's effectiveness is reflected not only in program planning and supervision, but also in personal example, teacher trust, stakeholder communication, and the ability to maintain a positive institutional climate.

The theoretical implication of this study is that principal leadership competence should be conceptualized as an integrated and contextual leadership construct. In the context of Islamic secondary education, leadership competence cannot be separated from moral credibility, interpersonal trust, instructional responsibility, and community engagement. This finding enriches the discourse on educational leadership by demonstrating that the effectiveness of principal leadership in madrasah is produced through the interaction between personal qualities, managerial capacity, academic supervision, and social relationships. Therefore, future models of madrasah leadership should include both technical-managerial and value-based-relational dimensions.

The practical implication of this study is that madrasah principals need to strengthen leadership practices that directly support teacher professionalism and instructional quality. The findings suggest that school leaders should develop more structured supervision programs, ensure systematic follow-up after classroom observation, provide equitable access to professional development, and improve program evaluation mechanisms. For policymakers and educational supervisors, the findings indicate the importance of principal training programs that do not focus only on administration, but also on instructional coaching, reflective supervision, data-based school improvement, and stakeholder partnership. For MAN 1 Medan, the results imply that existing leadership strengths should be maintained, while areas such as time management, program optimization, supervision follow-up, and teacher development mapping need to be improved.

Despite its contribution, this study has several limitations. First, the study was conducted in only one institution, namely MAN 1 Medan, so the findings cannot be generalized to all madrasahs or secondary schools. Second, the study used a qualitative descriptive approach, meaning that the findings are based on participants' experiences, perceptions, interviews, observations, and documents rather than statistical measurement. Third, the study focused on four competence dimensions and did not deeply examine other possible leadership dimensions, such as entrepreneurial competence, digital leadership, distributed leadership, or data-driven leadership. Fourth, the study did not measure the direct effect of principal leadership competence on student learning outcomes using quantitative indicators. Therefore, future research is recommended to use a mixed-methods design involving larger samples, comparative madrasah contexts, quantitative measures of teacher performance and student achievement, and longitudinal observation to examine how principal leadership competence contributes to sustainable educational quality improvement over time.

Conclusion

This study concludes that the principal's leadership competence plays a strategic role in improving educational quality at MAN 1 Medan. The findings show that the principal's personality competence is reflected in discipline, integrity, openness, emotional control, and role modelling, which contribute to the development of teacher trust, responsibility, and a positive school climate. Managerial competence is demonstrated through school program planning, task distribution, coordination, guidance, and monitoring, which support administrative order and more systematic program implementation. Supervision competence is evident in classroom monitoring, teacher guidance, and instructional feedback, although the follow-up mechanism after supervision still needs to be strengthened to ensure continuous improvement in teaching quality. Social competence is reflected in the principal's ability to build communication and collaboration with teachers, parents, school committees, and external institutions, thereby strengthening stakeholder trust and support for school development. Overall, the integration of these leadership competencies contributes to teacher professionalism, instructional readiness, school administration, professional development opportunities, and institutional quality improvement. However, several aspects still require further development, particularly time management, program optimization, equitable access to teacher training, and systematic supervision follow-up. Therefore, strengthening principal leadership competence should become a priority in madrasah quality assurance, especially through continuous leadership training, reflective academic supervision, data-based program evaluation, and collaborative stakeholder engagement.

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