

**DETERMINANT FACTORS OF TEACHER QUALITY IN STATE ISLAMIC
ELEMENTARY SCHOOLS**

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ABSTRACT

The quality of education in madrasah ibtidaiyah is a critical concern, as it depends heavily on teacher competence, leadership, and institutional management. This study examines the concept of educational quality, teacher development planning, leadership in quality improvement, and models of teacher quality enhancement in madrasah ibtidaiyah. Employing a qualitative approach with a multisite design, the research was conducted at MIN 9 Medan and MIN 12 Medan. Data were gathered through observation, interviews, and documentation, and analyzed both within and across sites. The findings indicate that educational quality is shaped by the synergy of effective learning, Islamic character formation, visionary leadership, participatory management, and teacher professionalism. Teacher development planning is carried out in short, medium, and long-term stages through needs assessment, competency programs, supervision, learning communities, partnerships, recognition, and continuous monitoring-evaluation. Leadership is transformational and participatory, fostering a culture of self-directed professional growth. The proposed teacher development model is systematic and sustainable, integrating training, supervision, collaboration, and character building. This study highlights the need for synergy among leadership, management, and professionalism to strengthen the quality of madrasah ibtidaiyah.

KATA KUNCI:
Pendidikan Islam, Mutu
Pendidikan, Profesi Guru

ABSTRAK

Mutu pendidikan di madrasah ibtidaiyah merupakan isu strategis karena keberhasilannya sangat dipengaruhi oleh kualitas guru, kepemimpinan, dan manajemen lembaga. Penelitian ini bertujuan mengkaji konsep mutu madrasah, perencanaan pengembangan mutu guru, kepemimpinan mutu, serta model peningkatan mutu guru. Metode yang digunakan adalah kualitatif dengan pendekatan multisitus pada MIN 9 dan MIN 12 Kota Medan. Data diperoleh melalui observasi, wawancara, dan dokumentasi, kemudian dianalisis secara intra-situs dan antar-situs. Hasil penelitian menunjukkan bahwa mutu pendidikan terbentuk dari sinergi antara pembelajaran, pembinaan karakter Islami, kepemimpinan visioner, manajemen partisipatif, dan profesionalisme guru. Perencanaan pengembangan mutu guru disusun secara terpadu dalam jangka pendek, menengah, dan panjang melalui identifikasi kebutuhan, peningkatan kompetensi, supervisi, komunitas belajar, kemitraan, apresiasi, serta monitoring dan evaluasi. Kepemimpinan dijalankan secara transformasional dan partisipatif, mendorong budaya belajar mandiri bagi guru. Model pengembangan mutu guru dirancang secara sistematis dan berkelanjutan dengan mengintegrasikan pelatihan, supervisi, kolaborasi, dan pembinaan karakter. Penelitian ini menegaskan pentingnya sinergi kepemimpinan, manajemen, dan profesionalisme guru sebagai strategi penguatan mutu madrasah ibtidaiyah.

INTRODUCTION

Teachers are often likened to the heart of education; without competent teachers, various innovations and educational policies will not have a significant impact. No matter how sophisticated the curriculum is, it will be meaningless if it is not supported by professional teachers who have high competence and dedication (Jentsch & König, 2022). Therefore, the quality of education is closely related to the quality of teachers. In fact, the quality of a nation's human resources—as a measure of progress—is essentially based on the quality of education shaped by teachers (Burroughs et al., 2019).

In this context, madrasahs, as formal religious-based educational institutions, have a strategic position in preparing the nation's future generations. The success of madrasahs involves various stakeholders, ranging from madrasah principals, teachers, educational staff, students, counselors, to madrasah committees, who collaborate with each other to achieve educational goals. Teachers and educational staff occupy a central position in ensuring the quality of learning, so that teacher management must be directed at improving quality through the development of professionalism, competence, and welfare.

Awareness of the importance of the role of teachers is reflected in a number of regulations issued by the government, such as Law No. 20 of 2003 concerning the National Education System, Law No. 14 of 2005 on Teachers and Lecturers, Government

Regulation No. 19 of 2005 on National Education Standards, and Government Regulation No. 74 of 2008 on Teachers. These regulations emphasize the mandatory qualification and competency standards for teachers, including a minimum bachelor's degree, pedagogical, social, personal, and professional competencies, as well as physical and mental health. A teacher certification program has also been introduced as an effort to ensure professionalism, although its implementation still faces various challenges.

However, conditions in the field show that the quality of teachers in Indonesia is still far from expectations. Many teachers are not yet able to implement innovative learning, even though their role is not only as facilitators of learning but also agents of change. In this era of rapid technological change, teachers are required to be proactive in integrating new methodologies, modern learning strategies, and the use of information and communication technology et al., 2021; Lewandowski, 2024).

Global indicators also show that the quality of education in Indonesia is still low. Based on the 2018–2021 Programme for International Student Assessment (PISA) survey, Indonesia ranks 74th out of 79 countries. The 2022 PISA report again placed Indonesia 69th out of 80 countries with a reading literacy score of 359, mathematics 379, and science 403—all of which are well below average (Economic Co-operation and Development). Around 70% of 15-year-old students are even recorded as being

below the minimum competency level in reading and mathematics. In the ASEAN region, Indonesia still lags behind Singapore, Vietnam, Malaysia, and Brunei, only slightly ahead of the Philippines and Cambodia (Woodward, 2022).

The fundamental problem lies not only with students but also with the quality of teachers. Teacher Competency Test data shows that the average teacher competency score is below target, ranging only from 50 to 57 on a scale of 100 for the 2019–2021 period. Research by Utami (2019) and Alifah (2021) confirms that low teacher quality is directly proportional to low national education quality. The contributing factors include low welfare, inadequate academic qualifications, limited continuing training, and a weak teacher recruitment system (Hidayat, 2021; Kusnandi, 2017).

The issue of teacher welfare has even become a classic issue. Many teachers have to find side jobs to meet their daily needs, ranging from tutoring to trading. There is also a quality gap between public and private school teachers, which has implications for the uneven quality of education. Research by Fahrudin (2016) and Inan (2016) even shows that the quality of teachers in Indonesia is still at the bottom among developing countries.

In addition, various other fundamental problems are still found, such as teachers teaching outside their areas of expertise, academic qualifications that are not equivalent to a bachelor's degree, low participation in continuing professional development, and a lack

of classroom action research. The lack of transparency in the teacher recruitment process also has the potential to produce educators with low competence. In daily teaching practices, many teachers still use methods that are not appropriate for their objectives, fail to utilize facilities, or do not prepare materials adequately.

Compared to previous studies, this study presents notable distinctions. Fitriana (2014) highlights the improvement of teacher quality through supervision, training, seminars, and scientific work. Fakhroh (2018) emphasizes the importance of teacher welfare, while Anwar (2020) emphasizes the role of needs analysis-based planning. Qomar (2019) highlights the leadership of madrasah principals, and Hidayat (2021) underscores the importance of mentoring to improve teacher skills.

Unlike these studies, this research offers a holistic synthesis between visionary leadership, participatory management, and teacher professionalism as key factors in improving the quality of madrasah ibtidaiyah. This study also highlights the interrelationship between learning, Islamic character building, structured quality planning, and a culture of independent learning among teachers in a single model of quality development. Through a multisite approach at MIN 9 and MIN 12 in Medan City, this study not only presents a contextual but also a comparative picture of teacher quality development, complete with practical challenges such as limited facilities, low teacher motivation,

the burden of an independent curriculum, and weak madrasah supervision.

Thus, the main distinction of this study lies in the formulation of an integrative, systematic, and sustainable madrasah quality development model. This model not only focuses on training and supervision but also integrates character building, professional collaboration, appreciation, and monitoring-evaluation mechanisms. This study provides a theoretical contribution in the form of enriching the literature on the quality of Islamic education, particularly in madrasah ibtidaiyah, by emphasizing the importance of a holistic approach in teacher development. Meanwhile, in practical terms, this research offers concrete recommendations for policy makers, madrasah principals, and teachers in managing education quality, including strengthening leadership, improving competence, internalizing Islamic values, and providing sustainable institutional support.

THEORY DESCRIPTION

Teacher quality is considered one of the main determinants of educational success, especially in public elementary madrasahs. A number of studies confirm that pedagogical, professional, social, and personal competencies are an integral part of teacher quality. A recent meta-analysis study shows that well-planned professional development programs can improve self-efficacy, pedagogical skills, and have a real impact on student learning outcomes (Zhou et al., 2023). This reinforces the view that teachers

who continuously participate in professional development will be better prepared to meet the demands of 21st-century learning.

Teacher quality is also inseparable from the leadership role of school or madrasah principals. Recent research emphasizes that transformational leadership influences the improvement of teacher professionalism, particularly through the provision of vision, motivation, and support in the learning process. In fact, leadership that prioritizes participation has been proven to strengthen organizational commitment and ultimately impact teacher performance (Soelistya et al., 2024). Thus, teacher quality is influenced not only by individual abilities, but also by the institutional context and prevailing leadership style.

In addition to competence and leadership, continuous professional development is a factor that continues to be emphasized in the literature. The results of a systematic review show that effective teacher development strategies usually include collaboration between educators, the use of learning technology, and consistent institutional support (Seprudin, 2024). This confirms that teachers cannot improve quality through short training alone, but require a comprehensive and sustainable development system, supported by a culture of reflection and classroom action research.

On the other hand, teacher welfare remains an important issue that affects the quality of learning. Studies in madrasah ibtidaiyah (elementary Islamic schools) show that

improvements in teacher performance are not only influenced by competence or leadership, but also by decent working conditions, motivation, and recognition from the institution (Pahlepi, 2022). Guaranteed welfare allows teachers to focus more on self-development and implementing innovative learning, while unsupportive conditions often encourage teachers to seek additional work that reduces their concentration on their main duties.

From a theoretical perspective, frameworks such as transformational leadership theory, professional growth theory, and Bandura's self-efficacy theory are important references for analyzing the factors that determine teacher quality. Self-efficacy theory explains that teachers' belief in their own abilities will mediate the relationship between professional development and learning effectiveness. Meanwhile, learning community theory emphasizes the importance of collaboration and reflection in building a culture of quality improvement. Thus, this theoretical study shows that teacher quality is determined by a combination of personal competence, institutional leadership, continuous professional development, and adequate contextual support and well-being.

METHOD

This study uses a qualitative approach with a multisite design. This approach was chosen because the research objective was to explore in depth the factors that determine teacher quality in public madrasah ibtidaiyah, taking into account the

context, social dynamics, and subjective experiences of the informants. The multisite design allowed the researchers to compare findings between research locations, resulting in a more comprehensive and valid understanding.

The research locations were MIN 9 Medan City and MIN 12 Medan City. These two madrasahs were selected based on representativeness, namely that they are both public madrasahs with relatively different social and cultural backgrounds but face similar challenges in improving teacher quality. Thus, these locations were considered appropriate for analyzing the determinants of teacher quality in greater depth and making comparisons.

The research data sources consisted of primary and secondary data. Primary data was obtained from key informants, namely the madrasah principals, teachers, madrasah supervisors, and school committees directly involved in planning and implementing teacher quality improvement. Secondary data was obtained from official documents, such as teacher development programs, supervision reports, meeting minutes, learning evaluation results, and relevant supporting literature.

Data collection techniques were carried out through participatory observation, in-depth interviews, and documentation studies. Observations focused on learning activities, teacher-student interactions, and the managerial practices of madrasah principals. Interviews were conducted using semi-structured guidelines to explore the experiences, views, and strategies used

by informants in improving teacher quality. Documentation was used to complement and validate the results of observations and interviews.

The data analysis technique follows the interactive stages proposed by Miles, Huberman, and Saldana (Miles et al., 2014), namely data collection, data reduction, data presentation, and conclusion drawing/verification. The analysis was conducted in stages, beginning with individual site

analysis, followed by cross-site analysis as recommended by Yin (2003). At the individual site stage, data from each madrasah was analyzed to identify specific determinants of teacher quality. In the cross-site stage, the findings from both madrasahs were compared to identify similarities, differences, and patterns that emerged, resulting in a more precise and contextual synthesis.

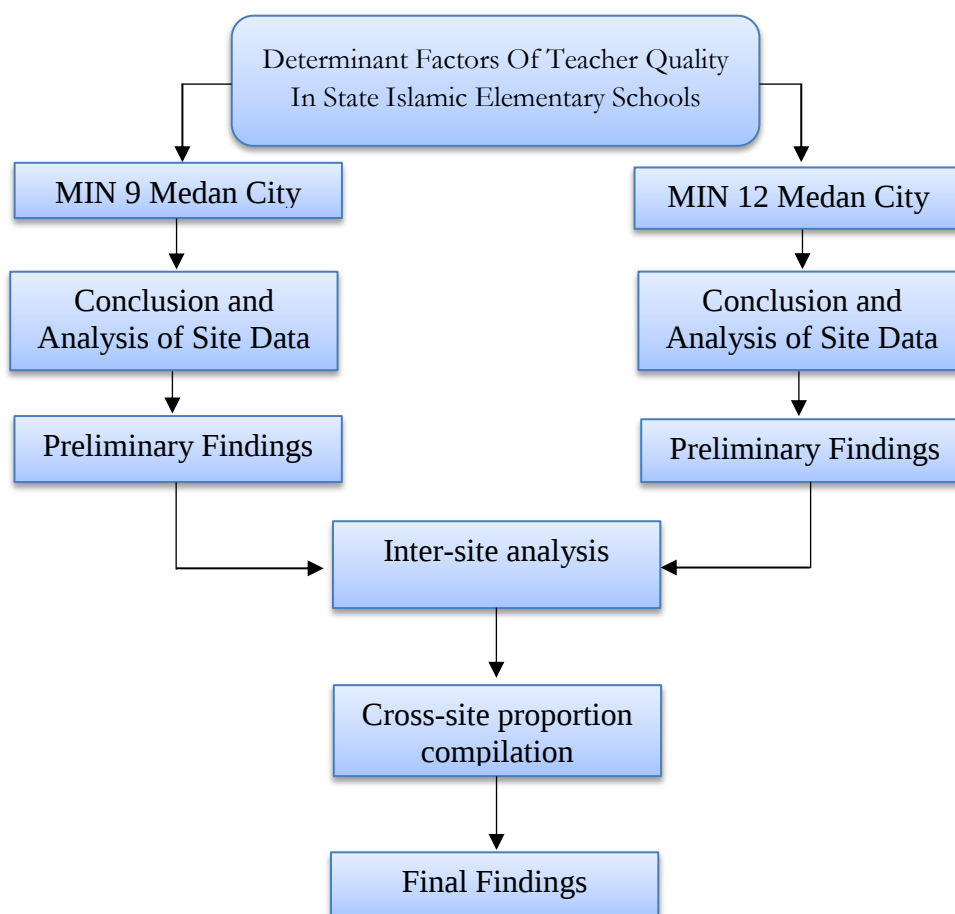


Figure 1. Multisite Analysis (Yin, 2003)

Data validity assurance techniques in this study were implemented through source triangulation, method triangulation, member checking, and peer debriefing. Source triangulation involved cross-examining information from different respondents, while method triangulation compared interviews,

observations, and document reviews to strengthen accuracy. Member checking was conducted by requesting participants to verify the researcher's interpretations, ensuring that findings truly reflected their perspectives. Peer debriefing also allowed colleagues to critically review the process. Collectively, these strategies

enhanced the credibility, dependability, and accountability of the research results.

RESULTS AND DISCUSSION

The Concept of Quality in Madrasah Ibtidaiyah

Research at MIN 9 Medan City and MIN 12 Medan City shows that the quality of madrasahs cannot be understood partially, but rather as a synergistic result of various complementary aspects. The quality of education in madrasahs stems from the integration of effective learning processes, Islamic character building, visionary and participatory institutional leadership, teacher professionalism, community involvement, and compliance with national education quality standards. The quality of madrasahs is reflected in the achievement of national education standards, the quality of madrasah leadership, the integration of general knowledge with Islamic education, student character building, and the support of a religious, safe, clean, and conducive learning environment.

The concept of quality in education has long been a concern for education management experts. Deming (1986) emphasizes through the principles of Total Quality Management that quality is a continuous process to meet the needs of stakeholders. Juran sees quality as *fitness for use*, namely the suitability of educational services to the needs of students and the community. Harvey and Green (1993) then classify quality into five dimensions: exceptional, perfection/consistency, fitness for purpose,

value for money, and transformative. For madrasahs, the dimensions of *fitness for purpose* and *transformative* are particularly relevant, as Islamic education is not merely about pursuing academic achievement but also about character transformation and the cultivation of noble moral values.

The findings of the study also underscore the role of teachers as a determining factor in the quality of education. Qualified teachers are not only characterized by their mastery of subject matter and pedagogical skills, but also by their moral integrity, commitment, sincerity, and exemplary behavior in social life and madrasah activities. This is in line with the mandate of Law Number 20 of 2003 concerning the National Education System, which states that the standards for educators and educational personnel include professional, pedagogical, personal, and social competencies. Teachers with these competencies are the main pillars in realizing quality education with character.

The quality of education at MIN 9 and MIN 12 in Medan City is reflected in several aspects, ranging from the achievement of national education standards, participatory and religious madrasah leadership, to a learning process that balances academic, spiritual, and moral aspects. In addition, the madrasah curriculum, which integrates general knowledge and Islamic education, a conducive learning environment, and continuous evaluation through supervision and teacher development, also strengthen the quality of education. Thus,

the quality of madrasahs is not measured solely by student test results, but also by the quality of graduates who are competent, have good character, and are able to respond to the challenges of the times.

In line with this, Syarif's research (2018) emphasizes that quality assurance in madrasahs is carried out through planning, teacher capacity building, supervision, performance evaluation, and continuous follow-up. Community participation has also proven to be important, as described by Mulyasa (2013), who emphasizes that quality education cannot be achieved without the involvement of parents and the community. Meanwhile, Bush (2011) underlines the importance of visionary and transformational leadership in shaping a healthy and productive school culture.

Therefore, the quality of madrasah ibtidaiyah can be understood as the result of synergy between teachers as the driving force, students as the center of learning, the head of the madrasah as a visionary leader, and the community as a strategic partner. All of these components work within the framework of national regulations and Islamic values to produce graduates who are intellectually intelligent, emotionally mature, spiritually resilient, and noble in character. The quality of madrasahs must therefore be seen as a process of continuous transformation that requires self-evaluation, strengthening of teacher competencies, academic supervision, and collaboration across stakeholders. Investing in

the quality of madrasah ibtidaiyah is a strategic investment for the future of the nation, because this is where the Qur'anic generation is born, excelling in science, having good character, and being adaptive to global dynamics.

Teacher Quality Development Planning in Madrasah Ibtidaiyah

The planning for teacher quality development at MIN 9 and MIN 12 State Madrasah Ibtidaiyah in Medan shows a structured pattern through long-term, medium-term, and short-term divisions, so that the direction of development is not only clear but also sustainable. This planning does not stop at the administrative level but is truly tailored to the real needs of teachers and madrasahs. The process includes identifying needs, setting goals, formulating program content, applying learning principles, implementation, identifying benefits, and comprehensive evaluation. All stages of the are carried out participatively by involving teachers, supervisors, and madrasah committees, thereby fostering a sense of collective ownership. Thus, this plan can be positioned as a strategic managerial instrument that ensures relevant and sustainable improvements in the quality of education.

The strategies pursued in planning teacher quality development include several important steps. Teacher needs are identified through classroom supervision, reflective dialogue, and analysis of student learning outcomes. After that, a competency development program is developed by

optimizing academic supervision, building a teacher learning community, strengthening partnerships with external parties, rewarding outstanding teachers, and conducting periodic monitoring and evaluation. This approach is in line with the *plan-do-check-act* (PDCA) cycle as described in Deming's theory, where planning does not only produce formal documents but is realized in actual practice and followed up with continuous improvement. With this framework, teacher quality development moves from conceptual aspects to concrete implementation (Deming, 1986).

The indicators of successful quality development planning in both madrasahs are reflected in the increased pedagogical and professional competence of teachers, productivity and innovation, and active involvement in sustainable development programs. In addition, the emergence of a collaborative culture among educators is an important indicator of success. An education expert emphasizes that quality planning based on student learning outcome evaluations is more effective because teachers feel that the program is relevant to their needs. Meanwhile, Sari (2022) shows that planning that is only administrative in nature without a real needs analysis does not bring about significant changes in learning practices.

However, a number of obstacles were also found. Budget constraints, heavy workloads, low motivation among some teachers, and minimal support from parents and madrasah committees were the main obstacles.

In addition, dynamic regulatory changes and differences in initial competencies among teachers add to the complexity. This is consistent with the findings of Anwar (2020), which emphasize the importance of data-based needs analysis, such as classroom supervision and competency tests, so that development programs are on target. Therefore, efforts to strengthen collaboration, optimize resources, and cultivate professional reflection are essential solutions.

From an educational management perspective, planning for teacher quality development is the main foundation for the success of quality improvement programs. Sallis (2002) emphasizes that within the framework of Total Quality Management, planning is an initial element of before the stages of control and quality improvement. Without careful planning, quality improvement programs risk losing direction and becoming merely ceremonial. Thus, planning serves as a strategic guideline that formulates objectives, strategies, programs, and indicators of success in accordance with the real needs of the madrasah. From this point, improvements in the quality of learning can be realized and have an impact on the quality of graduates.

The first step taken by madrasahs in quality planning is usually an analysis of needs and mapping of teacher competencies. This activity is carried out through classroom observation, review of teaching tools, interviews, and self-reflection questionnaires. The data

obtained enables the madrasah principal to map aspects of pedagogical, professional, social, and personality competencies, so that areas of weakness can be focused on for development (Darling-Hammond et al., 2017; Drossel & Eickelmann, 2017; O'Leary et al., 2023). Development goals are then formulated specifically, such as improving the ability to develop teaching modules based on the Merdeka Curriculum or utilizing digital technology. Darling-Hammond's view (2017) reinforces this by emphasizing that teacher professional development must be relevant, contextual, and sustainable, in line with the needs of students and education policy.

Teacher Quality Leadership in Madrasah Ibtidaiyah

Teacher quality leadership in Madrasah Ibtidaiyah occupies a strategic position in determining the direction of professional development for educators. Findings from research at MIN 9 and MIN 12 in Medan show that the madrasah principals adopted a participatory approach, so that teachers were not merely positioned as objects of policy, but also as key actors in formulating their professional development needs and strategies. This participatory leadership positions the madrasah principal not only as an administrative manager but also as a learning leader who fosters a collaborative, reflective, and innovative culture in the madrasah environment (Sallis, 2002).

In the planning process, madrasah principals exercise strategic, systematic, and

adaptive leadership. The initial steps begin with analyzing teacher needs through classroom supervision, direct observation, interviews, discussion forums, and review of student learning outcomes. The resulting competency mapping is then used to formulate clear objectives and indicators of success. Based on this mapping, the madrasah principal develops a tiered development program, establishes collaboration with various stakeholders, and designs a transparent schedule and budget allocation. Commonly implemented programs include thematic workshops, lesson studies, in-house training, coaching and individual mentoring, and strengthening the teacher learning community through Teacher Working Groups. This approach ensures that efforts to improve teacher quality are focused, structured, and aligned with real needs (Siregar, 2020).

The monitoring and evaluation stages are not neglected, but rather positioned as a means of reflection and program refinement. The head of the madrasah conducts regular academic supervision, facilitates teacher reflection forums, utilizes self-development reports, and receives input from madrasah supervisors. The evaluation produces concrete data which is then followed up with program improvements, so that the teacher quality development cycle is continuous. Within the framework of Total Quality Management, this step reflects the principles of continuous improvement, customer focus, and fact-based decision making, which emphasize that every

strategic decision must be based on data (Waite, 1992).

Other research results also confirm the significance of teacher quality leadership. Rahman & Hamid (2025), show that madrasah principals who actively supervise classes and facilitate discussion forums have succeeded in improving the quality of teachers' teaching tools, resulting in a 12% increase in student learning outcomes in two years. Wilson Heenan et al., (2023) found that the application of coaching by madrasah principals was more effective in preparing teachers to develop teaching modules for the Merdeka Curriculum. Meanwhile, Wilson Heenan et al., (2023) highlighted that transformational leadership styles triggered the emergence of learning innovations such as peer teaching, open lessons, and micro teaching, which contributed significantly to improving teacher quality.

Thus, teacher quality leadership is not limited to giving directions, but also building a conducive learning ecosystem, fostering a culture of professionalism, and creating a sense of ownership of the madrasah's vision. The madrasah principal, in his capacity as a quality leader, has a central role in overseeing the continuous improvement of teacher quality. Ultimately, this improvement in teacher competency has a direct implication on the emergence of madrasah graduates who excel in academic achievement, have noble character, are adaptive to the dynamics of the times, and remain grounded in Islamic values.

Teacher Quality Development Model in Madrasah Ibtidaiyah

The teacher quality development model at Madrasah Ibtidaiyah shows that improving the quality of educators requires a systematic, focused, and collaborative strategy. Findings from research at MIN 9 and MIN 12 in Medan show that developing teachers' pedagogical, professional, social, and personal competencies is not only the responsibility of individuals but also a collective movement involving the entire madrasah ecosystem. Madrasah principals, supervisors, committees, and parents play an active role in supporting this process, thereby creating an integrated and sustainable system. The approach used combines formal training, academic supervision, inter-teacher collaboration, teacher working groups, lesson study, and character and religious guidance. This strategy is based on the principles of participatory planning, continuous mentoring, constructive evaluation, and the formation of a culture of appreciation (Thien et al., 2021).

Both madrasahs adopted two main models, namely off the job site and in the job site. The off the job site approach was realized through teacher participation in various external activities, such as workshops, curriculum seminars, learning media training, and continuing formal education. This model is in line with Knowles' andragogy theory (1978), which emphasizes that adult learning is more effective when the material is relevant to their work needs. For example, the Merdeka

Curriculum implementation workshop provides teachers with the opportunity to understand differentiated learning, develop teaching modules, and conduct peer reviews. These activities not only broaden their knowledge but also provide space for reflection and foster a spirit of renewal in teaching practices.

However, teacher quality development does not stop at external training alone. The in-the-job site approach emphasizes the direct application of new knowledge in classroom teaching practices. This process is supported by academic supervision from the head of the madrasah, coaching and mentoring activities, as well as lesson studies that allow teachers to observe and reflect on each other's teaching. This model is in line with Kolb's experiential learning theory (2009), which emphasizes the importance of the cycle of concrete experience, reflection, conceptualization, and active experimentation. In the context of lesson study, teachers not only play the role of educators but also as researchers of learning practices, thereby giving rise to innovations rooted in real experiences.

A number of studies support the effectiveness of combining off-the-job and on-the-job strategies. Liu et al., (2024) proves that the IN-ON-IN model can improve teachers' pedagogical competence by up to 28%. Liu et al., (2024) finds that professional learning communities significantly strengthen teachers' numeracy literacy, while Nawas (2023) Safitri (2019) emphasizes that coaching-based

supervision has a major impact on improving authentic assessment skills. These findings show that teacher competency development requires integration between external learning that broadens horizons and internal practices that test and strengthen skills in the field.

Thus, the teacher quality development model implemented at MIN 9 and MIN 12 in Medan City proves that the synergy between off-the-job and on-the-job training can shape teachers who are reflective, adaptive, and professional. The balance between updating knowledge through external activities and strengthening skills through real practice in the classroom makes teachers better prepared to face the demands of modern education. Ultimately, this model not only improves individual competence but also contributes directly to the quality of learning in madrasahs, while supporting the development of graduates who excel academically and possess Islamic character.

Key Findings and Novelty of the Research

This study found that teacher quality development in Madrasah Ibtidaiyah is no longer viewed as a formal administrative program, but rather as a strategic, participatory, and continuous process that involves the entire educational ecosystem. The most important finding is the existence of a synergistic model for teacher competency development that integrates off-the-job site strategies (external training, workshops, seminars, formal education)

and in-the-job site strategies (academic supervision, coaching, mentoring, lesson study) simultaneously and complementarily. This synergy forms a development cycle that is more reflective, adaptive, and contextual to the real needs of madrasahs. This contrasts with common practices in many schools, where teacher training is still separate and non-continuous. Thus, the novelty of this research lies in the IN-ON-IN integrative model based on the madrasah ecosystem, which positions teachers not only as recipients of policy, but also as key actors in designing, implementing, and evaluating their professional development.

Theoretically, this study enriches the study of educational quality management and teacher professional development theory. First, these findings expand the application of the principles of *Total Quality Management* (Deming, 1986; Sallis, 2002) by emphasizing that the quality cycle is not only applicable to institutional management but also relevant in the context of collective teacher capacity building. Second, this study confirms the relevance of Knowles' *andragogy* theory (1978) and Kolb's *experiential learning* (2014) by showing that adult learning becomes more meaningful when there is a balance between conceptual knowledge obtained from outside and practical experience tested in the classroom. Third, this study contributes by presenting an integrative model based on the madrasah ecosystem, which connects total quality management, andragogy, and experiential learning in an applicable

operational framework. Thus, the main contribution of this study lies in strengthening the theory of teacher professional development through a synergistic, contextual, and needs-based approach, while emphasizing the position of madrasahs as centers of innovation in Islamic education quality.

CONCLUSION

Based on the description of the research at MIN 9 Medan City and MIN 12 Medan City, it can be concluded that the quality of education is understood as the result of synergy between academic, spiritual, social, and character aspects managed through participatory management. Quality is not only reflected in the achievement of national standards but also in a religious and conducive learning environment, community participation, and visionary madrasah leadership. With this approach, madrasahs not only produce academically intelligent students, but also students with noble character who are adaptive to the challenges of the times. The planning of teacher quality development in both madrasahs is carried out systematically through the identification of needs, determination of targets, program preparation, implementation, and continuous evaluation. Academic supervision, the formation of teacher learning communities, and partnerships with stakeholders are the main instruments. MIN 9 emphasizes appreciation-based professional mentoring, while MIN 12 focuses on collaboration with stakeholders and resource optimization. The leadership of the

madrasah principals acts as agents of transformation who encourage teacher participation in the formulation of development strategies. Monitoring and evaluation are carried out as a reflection for continuous improvement, not merely for control. The teacher quality development model in both madrasahs combines formal training, academic supervision, collaboration, and continuous coaching through teacher working group, lesson study, and classroom action research. This approach is in line with Knowles' andragogy theory and Kolb's experiential learning, which emphasize the importance of synergy between formal learning (off the job site) and practical learning (in the job site). The research recommendations are to strengthen the culture of collective reflection, expand partnership networks, and integrate educational technology. Continuous support from the government and the Ministry of Religious Affairs is also needed so that this model can become a best practice for other madrasahs in Indonesia.

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