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FACILITIES AND INFRASTRUCTURE AS SUPPORTING FACTORS FOR LEARNING QUALITY

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Abstract

The rapid transformation of education in the 21st century, characterized by globalization, digitalization, and complex sociocultural shifts, demands a paradigm shift in Islamic educational institutions. This study explores the implementation of Personalized Education in an Islamic boarding school (Islamic boarding school) context through a reflective field study conducted at Darul Mursyid Modern Integrated Islamic Boarding School in South Tapanuli, Indonesia. The research focuses on the Project Roadmap of Santri Aspirations, a structured mentoring program designed to guide students (santri) in discovering their potential, setting personal goals, and aligning their aspirations with Islamic moral and spiritual values. Using a qualitative reflective methodology that combines field observation, participatory workshops, and community engagement, the study investigates how educators, mentors, and parents collaborate to integrate academic, spiritual, and personal development. Findings reveal that the Roadmap Project promotes self-awareness, motivation, and goal orientation among students, transforming teachers into reflective mentors and fostering strong partnerships between the pesantren and families. The program demonstrates the adaptability of Islamic education to modern pedagogical approaches without compromising its spiritual essence. This article argues that personalized, reflective, and value-based education can serve as a model for Islamic boarding schools seeking to balance tradition with innovation in the era of global educational reform.

Keywords: Personalized Education, Islamic Boarding School, Reflective Learning, Humanistic Education, Educational Transformation, Character Formation

Abstrac

Transformasi pendidikan yang pesat di abad ke-21, yang ditandai dengan globalisasi, digitalisasi, dan pergeseran sosio-kultural yang kompleks, menuntut pergeseran paradigma di lembaga pendidikan Islam. Studi ini mengeksplorasi implementasi Pendidikan Personalisasi dalam konteks pesantren (pesantren) melalui studi lapangan reflektif yang dilakukan di Darul Mursyid Modern Integrated Islamic Boarding Madinah di Tapanuli Selatan, Indonesia. Penelitian ini berfokus pada Proyek Peta Jalan Aspirasi Santri, sebuah program pendampingan terstruktur yang dirancang untuk membimbing santri dalam menemukan potensi mereka, menetapkan tujuan pribadi, dan menyelaraskan aspirasi mereka dengan nilai-nilai moral dan spiritual Islam. Dengan menggunakan metodologi reflektif kualitatif yang menggabungkan observasi lapangan, lokakarya partisipatif, dan keterlibatan masyarakat, studi ini menyelidiki bagaimana pendidik, mentor, dan orang tua berkolaborasi untuk mengintegrasikan perkembangan akademik, spiritual, dan pribadi. Temuan menunjukkan bahwa Proyek Peta Jalan mendorong kesadaran diri, motivasi, dan orientasi tujuan di antara siswa, mengubah guru menjadi mentor reflektif dan membina kemitraan yang kuat antara pesantren dan keluarga. Program ini menunjukkan kemampuan pendidikan Islam untuk beradaptasi dengan pendekatan pedagogis modern tanpa mengorbankan esensi spiritualnya. Artikel ini berpendapat bahwa pendidikan yang personal, reflektif, dan berbasis nilai dapat berfungsi sebagai model bagi sekolah berasrama Islam yang berupaya menyeimbangkan tradisi dengan inovasi di era reformasi pendidikan global.

Kata kunci: Pendidikan Personal, Sekolah Berasrama Islam, Pembelajaran Reflektif, Pendidikan Humanistik, Transformasi Pendidikan, Pembentukan Karakter

A. INTRODUCTION

Islamic education in the modern era is faced with the challenge of being able to integrate Islamic values with advances in science and technology (Fitri, 2024). In the context of global competition and the demands of 21st century education, Islamic boarding schools are required not only to maintain a strong tradition of Islamic scholarship, but also to be able to adapt to technological developments and modern learning needs (Samino & Mahmudah, 2023). The transformation of Islamic educational institutions, especially modern Islamic boarding schools, is now directed at creating a holistic, integrative, and quality-oriented learning environment (Nurjaman et al., 2025). This is inseparable from the increasing expectations of society towards Islamic boarding schools as institutions capable of producing generations that excel in academic, spiritual and global competence aspects (Setiawan et al., 2020). One of the important elements that determines the success of this integration is the quality of educational facilities and infrastructure (Azzahra, 2024). Facilities and infrastructure are fundamental factors that play a role as a bridge between institutional vision and learning practices in the field (Inayah & Syaputra, 2025). Adequate facilities not only

support the comfort of the learning process, but also provide a learning experience that is more meaningful and relevant to current developments (Maghribi & Mujahadah, 2025). Modern Islamic boarding schools that adopt an integrated education system oriented towards science, technology and Islamic values require the support of well-managed educational facilities as part of a strategy to achieve quality (Fuad & M, 2024) However, academic studies on the role of facilities and infrastructure in improving the quality of learning in modern Islamic boarding schools have not yet developed adequately. Most research focuses more on curriculum management, learning strategies, and leadership, while the facility aspect is often seen as a technical element that does not receive adequate analysis (Sita et al., 2024). In fact, facilities and infrastructure are an integral part of educational management which has a direct impact on the effectiveness of the learning process and the formation of student character (Alam & Mahmud, 2025). This gap is what makes this research important to be carried out as an effort to enrich the perspective of Islamic education management through analysis of facilities and infrastructure as the main support for the quality of learning in modern Islamic boarding schools (Khudori et al., 2023). Modern Islamic boarding schools like Darul Mursyid offer an attractive model because they successfully combine a traditional education system based on tafaqquh fid-din with a general education system that emphasizes science and technology. In this context, facilities and infrastructure are not merely learning aids but also symbols of the institution's commitment to quality, professionalism, and Islamic character development. This phenomenon highlights the importance of in-depth research on how facility and infrastructure management supports improved learning quality in modern Islamic boarding schools (Idharudin, 2025). Previous studies have extensively discussed the relationship between educational facilities and learning quality. For example, research (Werang et al., 2024)emphasizes that the availability of adequate learning resources increases students' motivation to learn. However, most of these studies still focus on public schools, with few highlighting the context of Islamic boarding schools (pesantren) as Islamic educational institutions with unique spiritual and social dimensions. Meanwhile, research (Ridhokusumo, 2024). While some studies highlight the importance of digital facilities in madrasas, they have not yet linked them to Islamic values such as trust and blessing in educational asset management. This gap in the literature presents an important gap that this research addresses.

This study aims to address the academic and practical needs for a more comprehensive understanding of how facilities and infrastructure can support the quality of learning in modern Islamic boarding schools. Specifically, this study aims to (1) analyze the contribution of physical and non-physical facilities to the quality of learning, (2) identify Islamic values implemented in the management of facilities and infrastructure, and (3) evaluate an integrative strategy between facility management and an education system based on faith, knowledge, and charity.

This study starts from the assumption that the quality of learning is not only determined by the quality of teachers and curriculum, but also greatly influenced by adequate facilities and infrastructure and their management based on Islamic values. In other words, professional, efficient, and trustworthy management of facilities and infrastructure will improve the quality of learning, both academically and spiritually. The causal relationship to be tested is that the better the quality of facilities and infrastructure and the application of Islamic values in their management, the higher the quality of learning in modern Islamic boarding schools.

1. General Map of Literature on the Quality of Islamic Education and Learning Facilities

Studies on the quality of education in an Islamic context have developed in line with the demands of globalization and modernization of education. According to (Febrina & Karim, 2025). The quality of Islamic education is measured not only by academic results but also by its success in developing noble and productive individuals. Within this framework, facilities and infrastructure serve as strategic instruments that ensure the continuity of a meaningful teaching and learning process. Several studies have shown that the physical environment and the availability of learning facilities significantly influence student performance (Nawaji et al., 2024). However, literature discussing the context of Islamic boarding schools remains relatively limited. Most previous research has focused on curriculum management and leadership, while the dimensions of facilities and physical infrastructure are often considered technical aspects that receive less attention.

2. Research Patterns on Facilities and Infrastructure Management in Islamic Educational Institutions

Several studies have highlighted the importance of facility and infrastructure management in Islamic educational institutions. For example, research by (Amalia et al., 2025). at Madrasah Tsanawiyah Negeri 1 Malang showed that good facility management can improve the efficiency of the learning process and teacher satisfaction. Another study by (Rodin et al., 2025). emphasizes that the success of Islamic educational institutions in maintaining quality depends on facility maintenance systems and the use of information technology in facility monitoring. This study also found that the integration of spiritual values such as trust and sincerity in facility management fosters a sense of collective responsibility for the sustainability of educational facilities. This research approach

demonstrates a paradigm shift from a technical approach to a moral and spiritual approach in the management of Islamic educational facilities.

3. Research Patterns on the Integration of Religion and Science in Modern Islamic Boarding Schools

The concept of integrating religion and science in modern Islamic boarding schools is a topic that is receiving increasing academic attention. According to (Kamaliyah et al., 2025). This integrative paradigm aims to eliminate the dichotomy between religious knowledge and general knowledge, by making both instruments to achieve al-falah (happiness in this world and the hereafter) (Khabibullah et al., 2024). Modern Islamic boarding schools such as Darul Mursyid implement this approach by providing science laboratories, multimedia rooms, and technology-based learning systems that remain based on Islamic values (Sofia & Syaiful, 2025). Students learning in integrative environments demonstrated higher levels of motivation and creativity than students in traditional madrasas. However, these studies have not directly linked the role of facilities and infrastructure to the quality of integrative learning, a gap in this research.

4. Research Patterns on Learning Quality and the Physical Environment of Education

From an educational management perspective, learning quality is determined by three main elements: input, process, and output. Facilities and infrastructure are among the input components that significantly influence the quality of the learning process (Qomarudin, 2021). According to the Input–Process–Output (IPO) theory developed by Owens (2018), the physical environment of a school influences the academic and psychological climate of students. Meanwhile, in Islamic education, Al-Ghazali emphasized the importance of tanzhim al-mawadd (management of resources) as part of the moral responsibility of educators. Thus, educational facilities in Islam are not merely material needs, but also a manifestation of spiritual values in the form of a mandate to optimally manage God's blessings. Several recent studies (Widodo, 2025). confirmed that Islamic boarding schools with modern facilities tend to excel in national exam results and non-academic achievements, without neglecting the spiritual aspect.

5. Evaluation of Shortcomings of Previous Studies (Novelty)

Based on a literature review, it was found that most previous studies still separate the analysis of physical facilities and Islamic values in terms of learning quality. Prior research has not examined how these two aspects can strengthen each other through an integrative approach. Furthermore, empirical research using mixed methods in Islamic boarding schools is still rare. Most previous studies used a descriptive qualitative approach without involving quantitative data that could provide strong empirical validity. Therefore, this study offers a novelty in the form of a combination of quantitative and qualitative approaches with a focus on the role of educational facilities as an instrument for integrating Islamic values and learning effectiveness.

6. Formulation of New Research Directions (New Orientation)

Based on this gap in the literature, this research aims to develop a new understanding of how facilities and infrastructure can contribute to the quality of learning, not only focusing on efficiency and effectiveness but also on Islamic values such as ihsan (goodness), amanah (trustworthiness), and maslahah (benefit). This research seeks to explain the synergistic relationship between educational facility management, quality culture, and spiritual character in the context of modern Islamic boarding schools (pesantren). This approach is expected to broaden the theoretical perspective of Islamic education quality management and provide an empirical contribution to the development of an integrative education system in Indonesia.

B. RESEARCH METHOD

The unit of analysis in this study is the Darul Mursyid Integrated Modern Islamic Boarding School, located in South Tapanuli Regency, North Sumatra. This Islamic boarding school was chosen because it is one of the Islamic educational institutions that has successfully integrated religious and science education systems and has a track record of national and international achievements. The research focuses on the management system of educational facilities and infrastructure as a supporting factor for learning quality. The units observed include technology-based learning facilities, student dormitories, science laboratories, a digital library, and prayer rooms. Furthermore, the study also analyzes how Islamic values such as amanah (trustworthiness), ihsan (goodness of service), and maslahah (benefit of service) are applied in the management of educational facilities at the Islamic boarding school.

This research uses a mixed methods approach with a sequential explanatory design model, namely the research stages that begin with the collection and analysis of quantitative data, then continued with qualitative

exploration to deepen the findings This approach was chosen so that the research results not only explain the statistical relationships between variables but also provide contextual and philosophical understanding of the implementation of Islamic values in the management of facilities and infrastructure. The quantitative component was used to measure the extent to which teachers and students perceive the quality of facilities and learning, while the qualitative component aimed to explore the experiences, values, and meanings behind the data. Thus, this method allows researchers to combine numerical objectivity and depth of meaning in a single, coherent analysis.

Data analysis was conducted using a mixed methods approach. First, interview transcripts and observation notes were reviewed to identify key themes such as facility efficiency, internalization of Islamic values in facility management, and perceptions of learning quality. These two analyses were then integrated using a data merging approach to provide a holistic picture of how facilities and infrastructure are key drivers of improved learning quality in modern Islamic boarding schools based on Islamic values.

C. RESULTS AND DISCUSSION

The results of the quantitative survey showed that respondents rated the facilities and infrastructure at the Darul Mursyid Integrated Modern Islamic Boarding School as very good. The facilities that received the highest scores included the science and technology laboratory (mean = 4.62), the mosque and worship center (mean = 4.59), and the Islamic boarding school environment (mean = 4.51). Observations showed that each classroom is equipped with interactive presentation devices, high-speed internet access, and access to digital learning resources such as e-journals. These data illustrate that the Islamic boarding school has adopted a technology-based learning system without abandoning Islamic values. The principal of the Islamic Boarding School stated:

"We want every teacher and student to be able to learn with the best facilities, because in Islam, seeking knowledge is an act of worship that must be carried out with the best possible means."

This statement demonstrates a theological awareness that educational facilities are a trust that must be optimized to create quality and globally competitive learning. The results of the assessment of the facilities and infrastructure at the Darul Mursyid Integrated Modern Islamic Boarding School can be seen in Table 1 below:

Table 1. Results of the assessment of facilities and infrastructure at the Darul Mursyid Integrated Modern Islamic Boarding School

No.	Facilities and Infrastructure Components	Assessment Indicators	Mean	Category	Interpretive Description
1	Science and Technology Laboratory	Availability of experimental tools, cleanliness, and utilization for learning	4.62	Very good	Modern laboratories support research-based science learning and the integration of Islamic values.
2	Interactive Multimedia Room	Availability of smartboard, audio-visual, and internet connectivity	4.48	Very good	Supporting interactive learning, multimedia is used in interpretive studies and applied science.
3	Digital Library	Access to e-books, Islamic scientific journals, and research databases	4.44	Very good	To become an integrative reference center between religious knowledge and general knowledge.
4	Dormitory and Residential Facilities for Students	Comfort, cleanliness, security, and study space in the dormitory	4.33	Good	The conducive dormitory environment forms a culture of discipline and responsibility among students.
5	Mosques and Worship Centers	Cleanliness, comfort, and use for spiritual development	4.59	Very good	The mosque is the center for character development and spirituality of students.
6	Islamic Boarding School Environment	Beauty, cleanliness, greenery, and environmental management	4.51	Very good	A clean and green environment supports physical and spiritual health.
7	Language Laboratory	Audio-visual devices,	4.47	Very good	Improving the global

		interactive software, and the use of Arabic–English language learning			communication skills of students without abandoning religious values.
8	Teachers and Management Room	Availability of technological devices, collaboration spaces, and digital administration systems	4.38	Good	Supporting teacher professionalism in learning planning and evaluation.
9	Extracurricular Activity Area	Sports, arts and innovation research facilities at Islamic boarding schools	4.42	Very good	Cultivating creativity, collaboration, and balance between the physical and spiritual.
	Total		**4.47**	**Very good**	Facilities and infrastructure generally support the quality of integrative religion-science learning.

Observations also show increased collaborative activity in the science laboratory. This pattern suggests that adequate educational facilities not only improve academic achievement but also strengthen the intellectual tradition of Islamic boarding schools. A description of the availability and quality of infrastructure at Darul Mursyid Integrated Modern Islamic Boarding School can be seen in Table 2 below:

Table 2. Description of the Availability and Quality of Facilities and Infrastructure at the Darul Mursyid Integrated Modern Islamic Boarding School

No	Infrastructure Components	Mean	Elementary School	Category
1	Classrooms and Physical Comfort	4.35	0.48	Very good
2	Science & Technology Laboratory	4.62	0.39	Very good
3	Digital Library	4.44	0.41	Very good

4	Multimedia Learning Room	4.48	0.43	Very good
5	Sports and Health Facilities	4.25	0.52	Good
6	Student Dormitory and Cleanliness	4.33	0.46	Very good
7	Worship Facilities (Mosque & Tahfidz Room)	4.75	0.32	Very good
8	Green Area & Learning Environment	4.29	0.49	Good
9	Internet Access and Information Technology	4.21	0.53	Good
10	Student Safety and Health Facilities	4.18	0.51	Good
	Overall Average	**4.39**	**0.46**	**Very good**

Based on the results of the descriptive analysis in Table 1 and Table 2, the overall mean value was 4.39 with a standard deviation of 0.46, which is categorized as "very good". These data indicate that the facilities and infrastructure at the Darul Mursyid Integrated Modern Islamic Boarding School are considered very adequate by the majority of respondents, both in terms of availability, cleanliness, and their supporting functions for teaching and learning activities. The pattern of respondents' perception data regarding facilities and infrastructure can be seen in Table 3 below:

Table 3. Data Patterns of Respondents' Perceptions of Facilities and Infrastructure

Score Interval	Category	Frequency (n=80)	Percentage (%)
4.21 – 5.00	Very good	54	67.5
3.41 – 4.20	Good	22	27.5
2.61 – 3.40	Enough	4	5.0
1.81 – 2.60	Not enough	0	0
1.00 – 1.80	Very less	0	0
Total		80	100

Of the 80 respondents, 67.5% rated the quality of the facilities as "very good," and only 5% rated it "adequate." This reflects a very high level of satisfaction and positive perceptions of the Islamic boarding school's facility management system.

Substantively, these findings reinforce the view that superior infrastructure management, such as modern science laboratories, a digital library, and representative prayer and dormitory facilities, significantly contributes to improving the quality of integrated learning based on religion and science. Therefore, the success of Darul Mursyid Islamic Boarding School is not only due to its academic quality, but also to its conducive, modern, and spiritually nuanced learning environment.

The second finding comes from interviews with the head of facilities and infrastructure and senior teachers, which revealed that the management of facilities at the Islamic boarding school is carried out based on the principles of amanah (responsibility), efficiency, and blessings. Each facility unit has a responsible person with an annual internal audit system to ensure that maintenance and utilization are carried out according to regulations. For example, each laboratory has a usage logbook and a daily cleaning checklist signed by the supervisor. Interview data indicates that the amanah principle fosters a collective awareness that maintaining facilities is part of worship. One teacher stated:
"We instill in the students that maintaining the Islamic boarding school facilities is the same as maintaining God's trust, because everything here belongs to the community."
This statement shows the spiritual dimension in the management of facilities and infrastructure, which distinguishes Islamic boarding schools from public schools which are solely oriented towards materiality.

Observations revealed a strong participatory management pattern. Students are directly involved in weekly community service activities, facility supervision, and electricity and water management in the dormitory. This "students care about the environment" system has successfully reduced the level of facility damage by 35% in the past two years. Managerially, this policy contributes to a 20% annual increase in maintenance budget efficiency. From a learning perspective, student involvement in facility maintenance fosters a sense of responsibility, discipline, and ownership of the learning environment. Thus, Islamic management principles have been effectively implemented in the management system of Islamic boarding school facilities and infrastructure.

Table 4.5. Description and Data Pattern of Facilities and Infrastructure at the Darul Mursyid Integrated Modern Islamic Boarding School (n = 80)

No	Infrastructure Components	Mean	Elementary School	Category	Frequency (n)	Percentage (%)
1	Classrooms and Physical Comfort	4.35	0.48	Very good	55	68.7

2	Science & Technology Laboratory	4.62	0.39	Very good	64	80.0
3	Digital Library	4.44	0.41	Very good	60	75.0
4	Multimedia Learning Room	4.48	0.43	Very good	58	72.5
5	Sports and Health Facilities	4.25	0.52	Good	49	61.2
6	Student Dormitory and Cleanliness	4.33	0.46	Very good	54	67.5
7	Worship Facilities (Mosque & Tahfidz Room)	4.75	0.32	Very good	70	87.5
8	Green Area & Learning Environment	4.29	0.49	Good	50	62.5
9	Internet Access and Information Technology	4.21	0.53	Good	47	58.7
10	Student Safety and Health Facilities	4.18	0.51	Good	46	57.5
Overall Average		4.39	0.46	Very good	55	68.7

Based on Table 4.5, the overall average score was 4.39 (very good category) with a standard deviation of 0.46. This means that all components of the facilities and infrastructure at the Darul Mursyid Integrated Modern Islamic Boarding School were assessed as very good by respondents. The facilities with the highest scores were the worship facilities (mosque and tahfidz room) with a mean of 4.75 (87.5% of respondents were in the very good category), followed by the science & technology laboratory (mean 4.62).

These findings demonstrate that the management of Islamic boarding school facilities not only focuses on physical aspects and comfort, but also

integrates Islamic values into every educational facility. This aligns with the principle of integrating religion and science, a key characteristic of the Darul Mursyid Modern Islamic Boarding School. The availability of complete and well-maintained facilities supports a conducive, spiritual, and innovative learning environment, ultimately contributing to improved learning quality and the students' international achievements.

This finding strengthens the theory of Islamic educational management put forward by(Cadre, 2025), that the effectiveness of managing Islamic institutions depends not only on the administrative system, but also on the internalization of spiritual values in managerial actions. The management of facilities and infrastructure at Darul Mursyid reflects the concept of khilafah fil ard (human leadership over the earth), which demands responsibility and sustainability. In a modern context, Islamic boarding schools have succeeded in interpreting Islamic teachings progressively, emphasizing that sustainability is part of social worship. Thus, facility management impacts not only economic efficiency but also the formation of an Islamic ecological character.

The synthesis of quantitative and qualitative data shows that the combination of modern facilities and the internalization of Islamic values creates a productive, religious, and innovative learning environment. Respondents stated that modern learning facilities help them understand religious material more deeply through contextual and experiential approaches. For example, the use of smartboards for digital interpretation learning allows students to see the relationship between Quranic verses and scientific phenomena. Furthermore, teachers utilize laboratory space for scientific experiments linked to the value of monotheism, such as observing the regularity of nature as evidence of God's power. This synergy between the spiritual and scientific dimensions makes learning at Darul Mursyid more relevant, meaningful, and contextual.

In practice, Islamic boarding schools implement an integrated learning system approach that combines the Ministry of Religious Affairs curriculum with the national science curriculum and research-based local content. Facilities such as research corners and digital Islamic libraries support the research activities of students at the MA (Madrasah Aliyah) level. Over the past three years, Darul Mursyid students have won more than 15 national and international awards, including in Islamic science innovation competitions and Islamic boarding school robotics competitions. These findings reinforce the belief that learning quality improves significantly when Islamic values, science, and technology are combined in a single system based on modern facilities and a culture of quality.

D. CONCLUSION

This study concludes that facilities and infrastructure play a strategic role as a key supporting factor in the quality of learning in modern Islamic boarding schools. The availability of modern facilities such as science laboratories, multimedia rooms, and digital libraries, when managed with the values of amanah (trustworthiness) and ihsan (goodness), can increase learning effectiveness while

strengthening students' spiritual character. Thus, the quality of Islamic education is determined not only by the curriculum and teaching staff, but also by how facilities are managed within the framework of Islamic values.

The main contribution of this research lies in its attempt to integrate two previously separate domains: educational facility management and Islamic values, into a single mixed methods analysis model. This model demonstrates that educational facilities managed professionally and spiritually are capable of creating an ecosystem of excellence that supports integrative religion-science learning. Theoretically, this research broadens the horizon of Islamic education quality management studies toward a more holistic and contextual approach. The limitations of this research lie in its limited scope, which is still limited to one leading Islamic boarding school (pesantren), so the generalizability of the results needs to be tested at other Islamic educational institutions. Further research is recommended to expand the sample and develop more complex quantitative models, for example, using structural equation modeling (SEM) analysis. Furthermore, longitudinal studies are needed to assess the sustainability of the impact of facility and infrastructure management on the quality of learning and the character of Islamic boarding school graduates.

REFERENCES

Alam, S., & Mahmud. (2025). Management of facilities and infrastructure in improving the quality of education at the Nurul Ilmi Jambi Integrated Islamic Senior High School. 10(3), 1068–1083.

Amalia, T., Afifah, AR, & Prasetyo, A. (2025). Implementation of Educational Facilities and Infrastructure Management in Madrasahs to Improve Learning Quality. 3(1), 38–53.

Azzahra, S. (2024). Optimizing the management of facilities and infrastructure to improve the quality of student learning. 2(2), 152–165.

Febrina, M., & Karim, HA (2025). Implementation of Islamic Perspective on Educational Quality in Improving Graduate Quality at Al Azhar Islamic School, Bukittinggi. 1, 1–11.

Fitri, RSFBTA (2024). Islamic Education Strategy in the Modernization Era: Integration of Islamic Values with 21st Century Skills and Technology Rizka. Pendas: Scientific Journal of Elementary Education, 09, 322–332.

Fuad, R., & M, I. (2024). Improving the Quality of Education in Islamic Boarding Schools Through Curriculum Innovation Rahmad Fuad State Islamic University Sjech M . Djamil Djambek Bukittinggi in the world and the hereafter. The Qur'an also emphasizes the importance of education, especially for people. Journal of Law, Politics and Social Sciences (JHPIS), 3(2).

Idharudin, AJ (2025). The Role of Facilities and Infrastructure in Enhancing the Quality of Islamic Education. 2(2), 242–258.

Inayah, H., & Syaputra, AA (2025). Improving the Quality of Learning in Early Childhood Education in Rural Areas: A Case Study of Kasih Early Childhood

Education. 1(2), 50–59.

Kader, RM (2025). The Effectiveness of School-Based Management in the Perspective of Muhammad's Islamic Education. Al-Hasib, 1(4), 169–177.

Kamaliyah, D., Parmujianto, P., & Tharaba, F. (2025). Integration of Religious Studies and Science Learning in the Integrated Education System at Al Yasini Integrated Islamic Boarding School. JIIP - Scientific Journal of Educational Sciences, 8(7), 7584–7589. https://doi.org/10.54371/jiip.v8i7.8511

Khabibullah, M., Malik, G., & Sholahuddin, I. (2024). Stages and Steps in Implementing Mixed Method Research (MMR) in Educational Research. 02(01), 69–86.

Khudori, H., Andari, AA, Zulkarnain, I., & Latifah, A. (2023). Teacher Management in Improving the Quality of Education Through Digital Era Facilities and Infrastructure at Mts Darussalam Adi Jaya. 02(01), 485–494.

Maghribi, SP, & Mujahadah, KS (2025). Islamic Boarding School Strategies in Improving Student Learning Processes at Nida Al-Qur'an Temanggung Islamic Boarding School. 3.

Nawaji, Suhadi, B., & Sari, YI (2024). Journal of Scientific Research and Assessment. 1(10), 739–752.

Nurjaman, I., Erihadiana, M., Hasanah, A., & Arifin, BS (2025). RESTORATION of Education Based on Al-Quranic Values: A Conceptual Proposal for Educational Transformation. 1001–1014. https://doi.org/10.30868/im.v8i02.8621

Qomarudin, A. (2021). Learning activities as a system. 4(1), 24–34.

Ridhokusumo. (2024). Reconstruction of Madrasah Philosophy as an Excellent Islamic Educational Institution. KAMPUS AKADEMIC PUBLISING, 2(6), 197–208.

Rodin, R., Yanto, M., Istan, M., & Azwar, B. (2025). Implementation of the Islamic Education System: A Study of Strategy, Resources, and Quality. 1(September).

Samino, & Mahmudah, FN (2023). Management of Islamic Boarding School Character Education in Responding to the Challenges of Modernity in the Era of Globalization. Syntax Journal, 4(11), 2244–2261.

Setiawan, D., Bafadal, I., Supriyanto, A., & Hadi, S. (2020). Islamic boarding school-based madrasah: Potential for reforming a superior education model. 8(1), 34–43.

Sita, F., Muttaqin, MS, & Bhinika, P. (2024). Facilities and Resource Management Strategies in Schools to Improve Learning Quality. 1, 117–132.

Sofia, V., & Syaiful, D. (2025). Integration of Religion and Science: From the Reformer M. Amin Abdullah Veni. 4, 41–50.

Werang, BR, Dasar, P., Pendidikan, I., Ganesha, UP, Book, C., Siswa, MB, & Pendidikan, T. (2024). The influence of the availability of school facilities and infrastructure on elementary school students' learning motivation. 5(3), 310–318.

Widodo, W. (2025). Islamic Education Management Strategy to Optimize the

Potential of Students at the Wahyudi Widodo Islamic Boarding School, STAI Mahad Aly Alhikam Malang. Journal of Islamic Education Management, Al-Munadzomah, 4, 181–190.