Nasir, Nasir (2025) https://doi.org/10.70310/jet



ORIGINAL ARTICLE Open Access

Optimizing Educational Facilities and Infrastructure for Enhanced Learning at Jeneponto State Islamic Senior High School

Nasir, Nasir¹

e-mail: 1nasir@unm.ac.id

Abstrak

Tujuan-Penelitian ini bertujuan untuk mengeksplorasi bagaimana pengelolaan sarana dan prasarana pendidikan membantu meningkatkan kualitas pendidikan di MAN Jeneponto. Manajemen yang tepat penting karena mempengaruhi proses pembelajaran dan pencapaian tujuan pendidikan. **Metodologi / Desain / Pendekatan Penelitian-** Penelitian ini menggunakan pendekatan kualitatif deskriptif. Data dikumpulkan melalui observasi langsung, wawancara dengan Kepala Sekolah, Wakil Kepala Sarana dan Prasarana, dan guru, serta dokumen terkait. Data dianalisis dengan mengurangi informasi, mengaturnya secara sistematis, dan menarik kesimpulan berdasarkan temuan. **Temuan-Penelitian** ini menemukan bahwa pengelolaan sarana dan prasarana di MAN Jeneponto mengikuti prosedur yang tepat, termasuk perencanaan, pengadaan, distribusi, inventarisasi aset, pemeliharaan, dan pembuangan barang yang tidak dapat digunakan. Kualitas pendidikan sekolah dinilai sangat baik berdasarkan delapan standar pendidikan nasional. Namun, pendanaan yang terbatas merupakan tantangan besar dalam mengelola sarana dan prasarana. **Orisinalitas dan Nilai-Penelitian** ini menyoroti pentingnya pengelolaan infrastruktur sebagai faktor kunci dalam meningkatkan kualitas pendidikan di SMA keagamaan negeri seperti MAN Jeneponto. Temuan ini dapat memandu institusi lain untuk mengelola sumber daya fisik mereka dengan lebih baik untuk mendukung pengajaran dan pembelajaran, bahkan dengan keterbatasan anggaran.

Kata kunci: Pengelolaan sarana dan prasarana, mutu pendidikan, Pelaksanaan.

Abstract

Purpose-This study aims to explore how managing educational facilities and infrastructure helps improve the quality of education at MAN Jeneponto. Proper management is important because it affects the learning process and the achievement of educational goals. **Research Methodology / Design / Approach-** The study uses a descriptive qualitative approach. Data were collected through direct observation, interviews with the Principal, Deputy Head of Facilities and Infrastructure, and teachers, as well as related documents. The data were analyzed by reducing information, organizing it systematically, and drawing conclusions based on the findings.**Findings-**This study found that the management of facilities and infrastructure at MAN Jeneponto follows proper procedures, including planning, procurement, distribution, asset inventory, maintenance, and disposal of unusable items. The school's education quality is considered very good based on eight national education standards. However, limited funding is a major challenge in managing facilities and infrastructure.**Originality and Value-**This study highlights the importance of managing infrastructure as a key factor in improving education quality at state religious high schools like MAN Jeneponto. The findings can guide other institutions to better manage their physical resources to support teaching and learning, even with budget limitations.

Keywords: Management of facilities and infrastructure, quality of education, Implementation.

*Correspondence: Nasir, Nasir nasir@unm.ac.id

Author list information is available at the end of the article.



Introduction

Education has a very important role in the development of quality human resources. The quality of good education does not only depend on the curriculum and teachers, but also on the availability of supporting facilities and infrastructure. Educational facilities and infrastructure include various physical facilities such as classrooms, laboratories, libraries, and adequate learning equipment. The availability and management of these facilities and infrastructure greatly determines the smooth learning process, so that it can achieve educational goals optimally[1].

The management of educational facilities and infrastructure requires good management so that educational facilities can always be used effectively and efficiently. With proper management, educational facilities will be available when needed and in optimal conditions to support teaching and learning activities. However, the main challenge in facilities and infrastructure management is limited funding and attention to the maintenance of existing facilities. If not managed properly, facilities and infrastructure can become an obstacle in the learning process[2], [3].

At MAN Jeneponto, the management of facilities and infrastructure is one of the important aspects in efforts to improve the quality of education[4]. Therefore, this study aims to understand how the implementation of facilities and infrastructure management at MAN Jeneponto and how it affects the quality of education. In addition, this study will also identify the obstacles faced in the process of managing these facilities and infrastructure. This research is expected to contribute to the development of facilities and infrastructure management in other schools, especially in an effort to improve the quality of education. Introductions are an important part of research because they provide a relevant theoretical basis and support the conduct of the research. In this section, the researcher examines several key concepts related to the management of facilities and infrastructure, as well as the quality of education, based on the existing literature. Thus, this research obtained a strong theoretical foundation to understand the implementation of facilities and infrastructure management in improving the quality of education at MAN Jeneponto.

Implementation comes from the word "implement" which means implementation or implementation. Implementation is an action taken by individuals or government officials to achieve the goals that have been set in policy decisions[4]. In the context of education, implementation refers to the implementation of policies or procedures that aim to achieve the desired educational outcomes. The implementation of facilities and infrastructure management in schools is a concrete effort in the management of physical facilities and infrastructure to support teaching and learning activities.

Management is the process of planning, organizing, leading, and controlling organizational resources to achieve desired goals effectively and efficiently[5]. In the world of education, management plays an important role in optimizing the use of resources, both human and physical, in order to create a conducive learning environment. Facilities and infrastructure management is one of the aspects of education management that aims to ensure that all educational facilities are available and function optimally to support the teaching and learning process. Educational facilities and infrastructure are all facilities used to support the teaching and learning process, both direct and indirect[6]. The facilities include all the equipment directly used in the educational process, such as tables, chairs, whiteboards, and textbooks. Infrastructure, on the other hand, includes physical facilities that support the educational process, such as school buildings, laboratories, and libraries.

Facilities and infrastructure management includes a variety of activities, ranging from planning, procurement, maintenance, to the elimination of unsuitable facilities. Management of facilities and infrastructure aims to ensure that the facilities needed in the educational process are available in adequate quantities, in good condition, and accessible to all students and teachers. A good management process includes planning needs, procurement of goods, utilization, maintenance, and periodic evaluation [5], [7].

The quality of education can be defined as the level of achievement of educational goals measured from various aspects, such as the competence of graduates, the quality of the teaching

and learning process, and the quality of educators [8], [9]. The quality of education in Indonesia is measured based on eight national education standards which include graduate competency standards, content, processes, educators and education personnel, facilities and infrastructure, management, financing, and assessment of education [10]. The improvement of the quality of education is greatly influenced by the good management of various elements in schools, including facilities and infrastructure. If the available facilities are adequate and managed properly, the learning process will run more effectively, so that the quality of education can improve. Adequate facilities and infrastructure also allow teachers and students to carry out educational activities more comfortably, which ultimately affects student learning outcomes.

Several previous studies have examined the relationship between facilities and infrastructure management and education quality. For example, research by Pisriwati [10] shows that good management of facilities and infrastructure significantly increases the effectiveness of the teaching and learning process. Likewise, research by Gurion [8] revealed that the availability and quality of adequate facilities and infrastructure have a direct impact on the quality of education, especially in terms of achieving student competencies.

These studies reinforce the suspicion that good management of facilities and infrastructure in schools is one of the key factors in improving the quality of education. This research will continue a similar study with a focus on the implementation of facilities and infrastructure management at MAN Jeneponto and its impact on the quality of education. Based on the above theoretical study, it can be concluded that the management of facilities and infrastructure has a very important role in improving the quality of education. A good implementation of facilities and infrastructure management will ensure that the necessary facilities are available and functioning properly. This will create a conducive learning environment, so that the learning process runs effectively and efficiently, which ultimately improves the quality of education. This study will review how the implementation of facilities and infrastructure management at MAN Jeneponto, the obstacles faced, and their impact on the quality of education.

Method

This study uses a qualitative method with a descriptive approach to explore the implementation of facilities and infrastructure management in improving the quality of education at MAN Jeneponto. The qualitative method was chosen because this study aims to understand in depth the management process of facilities and infrastructure and its influence on the quality of education from the perspective of actors in the field. The data sources in this study include the main informants, namely the Principal, the Deputy Head of Facilities and Infrastructure, and teachers at MAN Jeneponto. Data was collected through direct observation, in-depth interviews, and documentation. Observation techniques are used to see the condition of facilities and infrastructure directly, while in-depth interviews are conducted to obtain information related to the management process and obstacles faced in the management of school facilities. Documentation is used to complete information through records or documents in the school.

Data analysis is carried out in stages through the process of data reduction, data presentation, and conclusion drawn [11]. Data obtained from the field is reduced or simplified to focus on things relevant to the research objectives. After that, the reduced data is presented in the form of a descriptive narrative that allows researchers to understand important patterns or findings related to the implementation of facilities and infrastructure management in schools. The final stage of this analysis is the drawing of conclusions based on the data that has been thoroughly analyzed. To ensure the validity of the data, this study uses a triangulation technique, which is by comparing data obtained from various sources and data collection methods. Thus, the results of this study are expected to provide an accurate picture of the management of educational facilities and infrastructure at MAN Jeneponto and its influence on the quality of education.

Findings and discussion

This research was conducted to understand how the implementation of facilities and infrastructure management at MAN Jeneponto and its impact on improving the quality of education. Based on the results of observations, interviews, and documentation, this study produced several important findings related to the management process of facilities and infrastructure as well as the quality of education in the school.

First, the implementation of facilities and infrastructure management at MAN Jeneponto has been carried out in accordance with clear procedures. The management process starts from planning, procurement, distribution, inventory, maintenance, to the elimination of facilities and infrastructure that are no longer suitable for use. In the planning stage, the school conducts an analysis of the needs of facilities and infrastructure each school year to ensure the availability of the facilities needed in the learning process. The process of procuring facilities and infrastructure is carried out by following applicable rules, including through the submission of funds from the government. After procurement, the facilities and infrastructure are distributed and recorded in the school's inventory. Maintenance of facilities is carried out periodically to maintain its quality and function, while removal is carried out for facilities that are severely damaged or no longer in use[7].

Second, the quality of education at MAN Jeneponto is considered very good based on eight national education standards. The quality of education is seen from graduate competency standards, content standards, process standards, standards for educators and education personnel, facilities and infrastructure standards, management standards, financing standards, and educational assessment standards. MAN Jeneponto has met most of these standards, especially in terms of the facilities and infrastructure that support learning activities. The facilities available include adequate classrooms, laboratories, libraries, and other supporting facilities such as sports fields and mosques. These facilities contribute to the creation of a conducive learning environment, so that students can learn comfortably and achieve optimal results.

Third, this study found that there are several obstacles in the implementation of facilities and infrastructure management at MAN Jeneponto. The main obstacle faced is limited funds for the procurement and maintenance of facilities. Although the management of facilities and infrastructure has been well underway, limited funds hinder the procurement of new, more modern facilities and the maintenance of existing facilities. In addition, some old facilities require more intensive repairs, but budget constraints are an obstacle in carrying out the maintenance thoroughly[7].

Overall, the implementation of facilities and infrastructure management at MAN Jeneponto is quite effective and has a positive impact on the quality of education. However, some challenges such as limited funds need to be considered so that existing educational facilities can continue to maintain their quality and support the learning process optimally.

The discussion in this study describes in depth the implementation of facilities and infrastructure management at MAN Jeneponto and how this affects the quality of education. From the results of the research that has been presented, there are several important points that need to be discussed further, including the effectiveness of management, the achievement of education quality standards, and the obstacles faced in the management of facilities and infrastructure.

Implementation of Facilities and Infrastructure Management at MAN Jeneponto

The results of the study show that the implementation of facilities and infrastructure management at MAN Jeneponto has followed clear management procedures, starting from planning to elimination. Planning of facilities and infrastructure is carried out by paying attention to the educational needs that develop every year. The procurement of facilities also follows existing provisions, so that it can meet the needs of schools gradually. This structured approach is in line with the management theory put forward, which emphasizes the importance of planning and managing resources to achieve effective and efficient goals [4], [12].

Well-managed facilities and infrastructure in schools play an important role in supporting the learning process. For example, the availability of comfortable classrooms and well-equipped

laboratories contributes to improved student learning outcomes. This condition supports the findings of previous research that show that good facility management increases learning effectiveness [13] In addition, good management also reduces disruptions in the learning process due to damaged or unavailable facilities when needed.

The Influence of Facilities and Infrastructure Management on Education Quality

MAN Jeneponto has managed to meet most of the national education standards, especially related to facilities and infrastructure standards, which have a direct impact on the quality of education in schools. Adequate facilities and infrastructure support the achievement of eight national education standards, such as graduate competence, curriculum content, learning process, and availability of education personnel. The quality of education at MAN Jeneponto is considered very good, and this can be attributed to the availability of adequate facilities to support teaching and learning activities.

This achievement is consistent with [10] research, which shows that the availability and quality of facilities and infrastructure play an important role in achieving student competencies. With good facilities, students can learn optimally and teachers can teach more effectively. In addition, efficient management of facilities and infrastructure also ensures that the learning process runs without technical obstacles that can interfere with teaching and learning activities.

Obstacles in the Implementation of Facilities and Infrastructure Management

Although the management of facilities and infrastructure at MAN Jeneponto is running well, there are several obstacles that need to be considered. The main obstacle is limited funds, which makes it difficult to procure new, more modern facilities and carry out optimal maintenance. This budget constraint is a common problem in the management of educational facilities and infrastructure, especially in public schools that are heavily dependent on government funding.

Limited funds not only affect the procurement of facilities, but also the maintenance of existing facilities. Some damaged facilities require repairs, but with limited budgets, schools must prioritize the most urgent facilities to be repaired. This situation can affect the quality of learning if essential facilities are not immediately repaired or replaced. These findings support a study conducted, which shows that one of the biggest challenges in the management of educational facilities and infrastructure is the lack of funds for the maintenance and renewal of facilities.

The results of this study show that good management of facilities and infrastructure has a significant effect on improving the quality of education. However, in order for these results to be more optimal, it is necessary to increase the allocation of funds for the maintenance and procurement of more modern facilities. The government, as the main funder, needs to pay more attention to this aspect, given the importance of facilities and infrastructure in supporting the achievement of educational goals.

In addition, school management also needs to continue to develop a more efficient and planned maintenance system so that existing facilities can continue to function properly. The development of training programs for education personnel in terms of facilities and infrastructure management can also be a solution to improve the quality of facility management in schools. Thus, a better quality of education can be achieved in a sustainable manner.

Overall, the management of facilities and infrastructure at MAN Jeneponto has run well and has had a positive impact on the quality of education. However, improvements in several aspects, especially related to the procurement of new facilities and maintenance, are still needed so that the quality of education in this school continues to improve.

Conclusion

Based on the results of research and discussion on the implementation of facilities and infrastructure management in improving the quality of education at MAN Jeneponto, it can be concluded that several important points are as follows: Implementation of Facilities and Infrastructure Management: The management of facilities and infrastructure at MAN Jeneponto has been carried out well, following clear and structured procedures. This process includes needs planning, facility procurement, distribution, inventory, maintenance, and removal of facilities and

infrastructure that are no longer suitable for use. This good management allows educational facilities to always be available when needed and can function optimally, thus supporting a more effective and efficient learning process.

Impact on Education Quality: Good management of facilities and infrastructure has a positive impact on the quality of education at MAN Jeneponto. The school manages to meet most of the national educational standards, particularly in terms of adequate facilities and infrastructure. The availability of complete and quality facilities supports the creation of a conducive learning environment, which ultimately has an impact on improving student learning outcomes and the overall quality of education.

Obstacles in Implementation: The main obstacle in the implementation of facilities and infrastructure management at MAN Jeneponto is limited funds. This budget limitation affects the procurement of new, more modern facilities and the maintenance of existing facilities. Some damaged facilities require more intensive repairs, but limited funds are an obstacle in maintaining the overall quality of the facilities.

Overall, even though the management of facilities and infrastructure at MAN Jeneponto has been running effectively and has a positive impact on the quality of education, increasing the allocation of funds and attention to the maintenance of facilities is still needed. With better management and adequate financial support, it is hoped that the quality of education at this school can continue to improve.

List of abbreviations

Not applicable

Acknowledgment

Not applicable

Declaration

The author declares that there is no conflict of interest regarding the publication of this article.

Ethics approval and consent to participate

Not applicable

Consent for publication

Not applicable

Availability of data and materials

Not applicable

Competing interests

All authors declare that there are no relevant conflicts of interest related to this research.

Author contributions

NN was solely responsible for the conception and design of the study, data collection, analysis, interpretation, and manuscript writing. The author also reviewed and approved the final version of the manuscript

Funding

This research was fully funded by the personal funds of the researcher. No external parties were involved in the funding or had any influence on the research process or its outcomes.

Authors detail

¹Universitas Negeri Makassar, Makassar

Received: 9 April 2024 Accepted: 10 May 2025

Published online: 1 June 2025

References

- [1] S. Salahuddin, M. Akos, and A. Hermawan, "Meningkatkan Mutu Pendidikan melalui Sumber Daya Manusia dan Sarana Prasarana di MTsn Banjar Selatan 2 Kota Banjarmasin," *Administraus*, vol. 2, no. 1, pp. 1–14, 2018.
- [2] M. I. Dacholfany, "Inisiasi strategi manajemen lembaga pendidikan Islam dalam meningkatkan mutu sumber daya manusia islami di Indonesia dalam menghadapi era globalisasi," *At-Tajdid: Jurnal Pendidikan dan Pemikiran Islam*, vol. 1, no. 01, 2017.
- [3] F. Ashadi, "Pengembangan sumberdaya manusia dalam lembaga pendidikan anak usia dini," *Jurnal Pembelajaran Fisika*, vol. 5, no. 4, pp. 412–418, 2017.
- [4] N. I. Okeke and C. C. Okaforcha, "Towards Effective Management of University Education in Nigeria," *Unizik Journal of Educational Laws and Leadership Studies*, vol. 1, no. 1, 2025.
- [5] U. O. R. Enes, L. Asha, and D. Wanto, "Optimization of Facilities and Infrastructure Management in Improving the Quality of Learning at Madrasah Ibtidaiyah," *Kharisma: Jurnal Administrasi Dan Manajemen Pendidikan*, vol. 3, no. 2, pp. 149–160, 2024.
- [6] R. Husni, E. J. Saputri, N. Khasanah, and W. Hariati, "Analisis Sarana Dan Prasarana Terhadap Minat Belajar Siswa Di MTSN 6 Padang Pariaman," *AL-MARSUS: Jurnal Manajemen Pendidikan Islam*, vol. 2, no. 1, pp. 1–11, 2024.
- [7] R. Fernández, J. F. Correal, D. D'Ayala, and A. L. Medaglia, "A decision-making framework for school infrastructure improvement programs," *Structure and Infrastructure Engineering*, vol. 21, no. 2, pp. 165–184, 2025.
- [8] S. Ben Gurion, M. P. Tampubolon, and M. Limbong, "The Influence of Teacher Competency and Educational Infrastructure on the Quality of Junior High School Education in the Cikarang Utara District," 2024.
- [9] A. Latif and D. Darmawan, "Examining How School Environment and Teacher Competence Affect Student Learning Motivation at MA Al Fatich Tambak Osowilangun Surabaya," *Teaching and Learning Journal of Mandalika (Teacher) e-ISSN 2721-9666*, vol. 5, no. 1, pp. 69–75, 2024.
- [10] S. A. Pisriwati, Y. Hardi, and D. H. Siswanto, "Enhancing organizational development through principal leadership to improve teacher and staff work discipline," *Journal of Organizational and Human Resource Development Strategies*, vol. 1, no. 01, pp. 52–62, 2024.
- [11] M. Nicmanis, "Reflexive content analysis: An approach to qualitative data analysis, reduction, and description," *Int J Qual Methods*, vol. 23, p. 16094069241236604, 2024.
- [12] M. F. Mukhdlor, A. R. Syam, and M. A. Syahri, "Evaluasi implementasi kurikulum merdeka menggunakan CIPP," *Jurnal Pendidikan Guru Sekolah Dasar*, vol. 1, no. 3, p. 9, 2024.
- [13] M. H. Fatoni and J. Subando, "The important role of learning evaluation for improving the quality of Islamic education: A literature study," *Jurnal Penelitian Pendidikan Islam*, vol. 12, no. 2, pp. 223–240, 2024.