

The Implementation of Learning Facilities and Infrastructure Management in Improving the Quality of Education at Madrasah Aliyah Islamic Centre (MAIC) Cirebon

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Abstract:

Quality issues are closely related to the educational process. To create a quality educational process, support from various educational components is needed, including learning facilities and infrastructure. However, in reality, many madrasahs still have limited facilities, so proper management of learning infrastructure is needed to ensure optimal use. This research aims to describe the implementation of learning facilities and infrastructure management and its impact on the improvement of education quality at Madrasah Aliyah Islamic Centre (MAIC) Cirebon. The main issue raised is the limited facilities and the suboptimal utilization of resources by educators and students. This research uses a descriptive qualitative approach with data collection techniques through observation, interviews, and documentation. The main informants consist of the head of the madrasa, teachers, administrative staff, and students. The research results show: (1) perseverance of learning facilities at MAIC is generally adequate but not optimally utilized, such as the library and laboratory; (2) The quality of education is influenced by the professionalism of teachers and the completeness of supporting facilities; (3) Good management of facilities helpless facilities plays. Thus, effective management of facilities and infrastructure significantly contributes to the improvement of the quality of education in madrasahs.

Keywords: Educational Management, Infrastructure, Quality of Education

Introduction

Education plays an important role in the progress of a country. The quality of education is highly dependent on the availability of adequate facilities and infrastructure, which should be the concern and responsibility of the government to continue to improve. The main goal of education is to form individuals who have knowledge, skills, and positive values and attitudes. Several important factors need to be met so that the education process can run smoothly and produce quality graduates. To achieve learning outcomes that are in line with expectations, the learning process needs to be optimized. Teaching and learning activities must be designed systematically, with clear stages and considering various aspects to run effectively and efficiently (Aimah & Rohmah, 2020).

Improving the quality of education services is highly dependent on the availability of adequate facilities and infrastructure. To support the quality of education, the management of facilities and infrastructure must be carried out in a well-planned and organized manner. Facilities and infrastructure management includes managing the resources owned by educational institutions to support the teaching and learning process and other activities that have an impact on improving the quality of education. With proper management, the quality of education will also improve. (Hasanah et al., 2023)

Through a policy issued by the Ministry of Education, the government established Regulation No. 24/2007 on Educational Facilities and Infrastructure Standards for SD/MI, SMP/MTs, and SMA/MA levels. This regulation serves as a guideline for schools to provide equitable and standardized facilities and infrastructure. The regulation explains that schools must have sufficient land for students and basic facilities, including classrooms, libraries, science laboratories, leadership rooms, teachers' rooms, administrative rooms, places of worship, counseling rooms, UKS, student organization rooms, toilets, warehouses, and places of worship and sports. (Rakista, 2023)

Education in Indonesia has developed in various aspects, and the government has implemented a number of programs to improve education standards. Various short and long term programs have been developed to continuously improve the quality of education in Indonesia. Quality itself is the best effort that is carried out, because this is very important for stakeholders. Quality is also the main target of a product to meet the standards that have been determined. Educational services can be said to be of quality if they are simple but have important value and in accordance with applicable standards. Therefore, the quality of education can be interpreted as the characteristics or performance displayed by an institution in order to achieve predetermined goals. (Marpaung et al., 2023)

There are various ways to assess the quality of education. Basically, education can be measured by analyzing the relationship between inputs and outputs. Determining inputs is a process, while outputs are important components that are interrelated and affect the quality of education. Inputs include all the resources needed to carry out the process, such as learning, training and scientific activities in educational institutions. Meanwhile, output is the result of the process that has been implemented. (Marpaung et al., 2023)

The issue of infrastructure and facilities is closely related to the education budget. The amount and allocation of funds is a major factor in ensuring the adequacy of educational facilities. Significant shortages or damage to infrastructure can affect the smooth implementation of education. If many facilities are damaged, the learning process will be disrupted and not run effectively. (Lestari M, Mandasari N, 2021)

First, Soro et al. (2023) in *Journal for Islamic Studies* Vol. 6 No. 2, have similarities in discussing the importance of infrastructure management to improve the quality of education and use a qualitative approach. The difference

is that Soro et al. examined universities with a focus on accreditation and ISO standards, while the researchers examined madrasah aliyah with a focus on the implementation of management and utilization of facilities in the midst of limitations.

Second, Umar et al. (2024) in *Irsyaduna Journal* Vol. 4 No. 1 have similarities in qualitative approaches and attention to the strategic role of infrastructure facilities on quality. The difference is that Umar et al. emphasized the development of facilities by the madrasah head, while the researcher is more on the implementation of management and the use of facilities by teachers-students directly.

Third, Torismayanti et al. (2023) in *Journal on Education* Vol. 6 No. 1 has similarities with researchers in terms of a complete discussion of all stages of infrastructure management from planning to elimination and the aim of improving the quality of education. However, the difference is that Torismayanti et al. studied public madrasahs with an established management system, while the researchers studied private madrasahs that still face budget constraints and do not have a written managerial system.

Fourth, Nurstalis et al. (2021) in the *Isema Journal* Vol. 6 No. 1, have similarities in approach and topics regarding the management of infrastructure to support quality. However, Nurstalis et al. examined excellent schools with complete facilities and a comprehensive managerial role, while the researcher raised implementation challenges in madrasah with limitations and undocumented management.

Fifth, Muslimin & Kartiko (2020) in *Munaddhomah Journal* Vol. 1 No. 2, both highlighted the relationship between infrastructure and quality of education. The difference is that they used a quantitative approach with statistical tests and found that facilities were more dominant, while researchers used a qualitative approach and emphasized the managerial process and real utilization in the field.

Infrastructure facilities are educational facilities that are needed in the teaching and learning process in educational institutions / educational units and are one of the sources that become a benchmark of the quality of education itself which needs to be improved continuously along with the development of science and technology. The need for facilities and infrastructure is very necessary to be implemented in supporting student skills so that they are ready to compete against the rapid development of science, technology and information. Quality or quality is something that distinguishes the good and bad of a product. In the world of quality education includes three things, namely input, process, output / outcome. The quality of education is the level of quality or excellence of the education system in facilitating students in achieving the desired educational goals. The quality of education can be measured by various indicators such as student academic achievement, teacher teaching ability, quality of facilities and infrastructure and the curriculum used. Good quality education can improve students' ability to continue their education to a higher level and have a positive impact on the progress of a country in various fields. Management of educational facilities and infrastructure includes: (1) planning of facilities and infrastructure needs, (2) procurement of facilities and infrastructure. (3) distribution of facilities

and infrastructure (4) inventory of facilities and infrastructure, (5) maintenance of facilities and infrastructure, (6) elimination of facilities and infrastructure. The goal is to support every activity, both learning activities and other activities so that activities run optimally and run on the course of the educational process. With the management of facilities and infrastructure, care for them can be carried out properly, so as to improve the performance of school residents, extend the life of use, reduce repair costs and determine the effective cost of maintenance of advice and infrastructure. Therefore, the availability of facilities and infrastructure is one of the important components that must be fulfilled in supporting the education system. These facilities and infrastructure are used to support and improve school quality.

Research Methods

In this study, researchers used descriptive qualitative methods. According to Saryono (2010), qualitative research is research that is used to investigate, discover, describe, and explain the qualities or features of social influences that cannot be explained, measured or described through quantitative approaches. (Abdul Fatah Nasution, 2023)

This research was conducted at Madrasah Aliyah Islamic Center Cirebon. The data subjects of this research are Mrs. Masidah Dasari as Head of Madrasah, Mr. H Lili Jumali as Deputy Head of Infrastructure, Mr. Indra as Administrative Staff, Mrs. Yuliatun Chasanah as Geography Teacher, Mr. Bahruddin as Islamic Culture History Teacher, Suci, Aini, Umama, Khubi, Miftah as 5 students at Madrasah Aliyah Islamic Centre (MAIC) Cirebon. Data collection through observation, interviews, and documentation. Data analysis techniques in this study using appropriate steps, the collected data were analyzed, researchers used qualitative data analysis with 3 techniques, namely: data reduction, data presentation and conclusions.

Results and Discussion

Research Results

1. Condition and Utilization of Learning Infrastructure Facilities at Madrasah Aliyah Islamic Centre (MAIC) Cirebon

Based on the results of observations and interviews, the condition of facilities and infrastructure at Madrasah Aliyah Islamic Center (MAIC) Cirebon is considered adequate to support the learning process. The madrasah has ten classrooms, science and computer laboratories, a library, and a skills room. The head of the madrasah said that the main facilities such as classrooms and environmental cleanliness are quite good, although some supporting facilities such as laboratories and UKS rooms still need improvement. Teachers and administrative staff also assess that the learning atmosphere is comfortable, although there are still parts that need improvement. Meanwhile, students revealed that the clean classrooms and quiet environment provide their own comfort in learning, although facilities such as the library have not been fully utilized.

The types of facilities and infrastructure at MAIC Cirebon are divided into direct facilities and supporting infrastructure. Facilities such as classrooms, laboratories, and computer rooms are mentioned by teachers as important elements in supporting interactive and practice-based learning. Meanwhile, infrastructure such as prayer rooms, sports fields, and libraries function as supporters of character development and balance student activities outside the classroom. Some students mentioned that the laboratory and internet network are very helpful for technology-based learning, while the sports room and canteen also support comfort while at the madrasah. This shows that each type of facility has its own role in supporting the formation of an active and comprehensive learning atmosphere.

The management of facilities and infrastructure at MAIC Cirebon is aimed at creating a conducive learning atmosphere and maintaining the sustainability of facilities in the long term. Islamic Culture History teachers emphasize that the existence of complete and comfortable facilities not only has a positive impact on student enthusiasm, but also affects the motivation of teaching teachers. The Head of Administration said that neat management helps the smooth running of activities and makes it easier for all parties to utilize the facilities without technical obstacles. From the students' perspective, most stated that madrasah facilities influence their enthusiasm for learning, especially when classrooms are clean and practical tools are available. This shows that good infrastructure management not only supports the academic process, but also creates a productive and sustainable learning environment.

2. Quality of Education Reflected in Madrasah Aliyah Islamic Center (MAIC) Cirebon

The quality of education at MAIC Cirebon is considered quite good and continues to improve. Based on an interview with the head of the madrasah, quality is measured through eight national education standards, including graduate competencies, content, processes, educators, infrastructure, and assessment. MAIC emphasizes the importance of mastering attitudes, knowledge, and skills as part of the graduate competency standards. Although not all students continue to higher education, the madrasah is committed to improving quality through appropriate teacher qualifications and infrastructure support that continues to be improved.

Teachers assess the quality of education not only by academic achievement but also by the learning process and character building of students. Learning is adapted to classroom conditions, and student achievement includes both academic and non-academic aspects. To improve quality, the madrasah actively involves teachers in training and MGMP forums, and creates a healthy and supportive learning environment. In addition to the academic focus, MAIC also develops expertise programs such as Tata Boga and Computer Engineering, familiarizes daily worship, and internship programs as a provision for work skills. This commitment is reflected in the achievement of A accreditation and ongoing efforts in developing learning facilities.

3. Implications of Infrastructure Management Implementation on Improving the Quality of Education in Madrasah Aliyah Islamic Center (MAIC) Cirebon

Facilities and infrastructure planning at MAIC Cirebon is carried out systematically and involves many parties. Each plan is prepared by taking into account the vision and mission of the madrasah, as well as adjusting to the real needs identified through regular discussions between the madrasah head, managers, and teachers. Prioritization is done based on the condition of existing facilities and budget availability, so that what is planned really answers the growing learning needs.

After the plan is prepared, the next step is the procurement of facilities and infrastructure, which is carried out in a structured manner. This process begins with identifying the items needed, followed by budget preparation, vendor search, and selection of the most suitable offer. Although the madrasah is often faced with budget constraints, it still tries to accommodate proposals that are considered urgent and relevant. Thus, the procurement process is not only limited to meeting needs, but also pays attention to efficiency and quality.

All facilities that have been obtained are then distributed to units in need through an orderly and coordinated system. Distribution is based on evaluation results and input from teachers and students as the main users. Madrasahs also try to respond to urgent needs quickly through coordination between sections, so that there is no delay or imbalance in the utilization of facilities.

To ensure optimal utilization of facilities, the madrasah also routinely conducts inventories. This process is carried out at least twice a year and aims to record in detail all items owned, as well as detect damage or loss. Recording is done in the form of books or digital files, and is used as the basis for preparing the next report or procurement plan, so that the management of goods is more orderly and controlled.

After the items are used, care and maintenance is the next important step. Madrasahs conduct regular checks on the condition of the facilities and involve teachers and students in community service activities or daily responsibilities. Maintenance is not only done by technical personnel, but also becomes part of the school culture that fosters a sense of belonging and shared responsibility for the learning environment.

If there are items that are no longer suitable for use or are severely damaged, the madrasah will carry out deletion through official procedures. Every item that is deleted must go through the stages of checking and management approval. By conducting an orderly deletion, the madrasah can avoid the accumulation of damaged goods and open up space for new facilities that are more in line with the needs.

The implication of the entire facilities and infrastructure management process is the creation of a more orderly, comfortable and efficient learning

environment. Each stage, from planning to disposal, contributes to the smooth learning process and the achievement of sustainable education quality. Good management also reflects the awareness and commitment of all madrasa residents in supporting the creation of an educational, safe and enjoyable learning atmosphere.

Discussion

1. Condition and Utilization of Learning Infrastructure Facilities at Madrasah Aliyah Islamic Centre (MAIC) Cirebon

Facilities and infrastructure have an important role in supporting the smooth learning process. According to Donumo & Indah (2024), adequate facilities not only support teaching and learning activities, but also contribute to the achievement of quality education. Based on the results of research at Madrasah Aliyah Islamic Center (MAIC) Cirebon, in general, the condition of facilities and other supporting facilities such as toilets and prayer rooms is sufficient to support the learning process. One of them is the library which has provided a wide collection of textbooks and supporting readings, although its utilization by students and teachers is still limited and has not become a routine part of teaching and learning activities. This shows that although the facilities are available in limited quantities, their utilization, which has not been maximized, is an important note so that the existing facilities are truly able to support the achievement of the overall quality of education.

This condition is in line with the views of Bararah (2020) in the statement of Soetjipto (2009) which explains that educational infrastructure is very important to support learning activities. The results of research at MAIC Cirebon show the application of this theory. In madrasah, facilities are facilities that directly support the learning process, such as classrooms, laboratories, and computer rooms. Meanwhile, infrastructure is other supporting facilities that help student activities indirectly, such as sports fields and libraries, which play a role in the overall development of students. The existence of adequate educational facilities and infrastructure greatly affects the teaching and learning process.

The purpose of managing infrastructure facilities at MAIC Cirebon is also in line with the theory of Setiawan & Abrianto (2019) in the statement of Islam (2021), which states that the purpose of educational infrastructure facilities is to create and maintain optimal school conditions. They mentioned that the management of infrastructure facilities aims to provide the facilities needed in learning activities and ensure that the teacher's duties can be carried out properly by students. Research at MAIC Cirebon shows that good management aims to ensure that all facilities support teaching and learning activities optimally. In addition, this management also creates a conducive atmosphere and improves the quality of education. With purposeful management, existing facilities can be used longer and remain in good condition, thus providing long-term benefits for the entire madrasah community.

2. Quality of Education Reflected in Madrasah Aliyah Islamic Center (MAIC) Cirebon

The theory explained by Kholifah (2020) states that education is said to be of quality if all parties involved, such as principals, teachers and employees, can develop both physically and psychologically. Physical development includes financial rewards, while psychological development includes opportunities to learn and develop abilities and creativity. Thus, the quality of education depends not only on academic results, but also on the welfare and development of all elements within the educational institution. The results of research at MAIC Cirebon show that the quality of education in this madrasah is measured through various indicators, such as academic results, learning processes, student character development, and the quality of facilities and infrastructure. MAIC Cirebon is committed to setting standards for graduate competencies that include attitudes, knowledge, and skills, as well as providing a supportive learning environment. This shows that this madrasah is in line with Kholifah's theory, by making the development of all parties as the key to improving the quality of education.

In line with that, the theory put forward by Fiandi (2023) emphasizes that improving the quality of education depends on various aspects, such as the leadership of the principal, the active role of teachers, attention to students, a good curriculum, and a wide network of cooperation. The results of research at MAIC Cirebon show that this madrasah has implemented quality improvement strategies in a planned manner, including through the development of an appropriate curriculum and training for teachers. This effort aims to enable teachers to apply more interesting and relevant learning methods. A positive learning atmosphere is also continuously built to increase student enthusiasm. The A accreditation is a testament to the madrasah's commitment in maintaining the quality of education, supported by expertise programs and spiritual activities that help students develop skills and character.

3. Implications of Infrastructure Management Implementation on Improving the Quality of Education in Madrasah Aliyah Islamic Center (MAIC) Cirebon. The theory explained by Saputra & Sriyanto (2021) states that the management of educational facilities and infrastructure includes six main stages, namely planning, procurement, distribution, inventory, maintenance, and elimination. All of these stages are a systematic and interrelated process, which aims to optimally support learning activities.

Based on field findings at MAIC Cirebon, the planning process has been carried out in a participatory manner through deliberations between the head of madrasah and teachers. Each work unit conveys facility needs, although most are still done verbally and have not been documented in writing. The involvement of teachers in this process creates a sense of ownership and strengthens the compatibility between the real needs in the field and the

procurement plan. However, the absence of a written system means that some important needs are at risk of not being included in the annual budget. Furthermore, the procurement process of infrastructure facilities at MAIC is carried out in stages by adjusting the needs and budget capabilities. After the needs are identified, the madrasah searches for vendors and selects goods based on quality and price. Although limited in terms of budget, this procurement effort has a positive impact because teachers and students directly feel the comfort of facilities such as classrooms, tables and chairs, and practicum equipment.

In the distribution process, MAIC involves teachers and staff in the distribution of facilities so that the purchased items can be used immediately by the units in need. Coordination is done informally, and although the flow is simple, the facilities are quite well targeted. However, a more organized recording system is still needed to know which items have or have not been distributed.

Inventory is carried out twice a year, at the beginning and end of the semester. Each item is coded and recorded in the inventory book, although the recording system is still manual. This causes data updates to be sometimes late and makes it difficult to track items quickly. Inventory digitization can be a strategic step to improve the efficiency of asset management.

Meanwhile, facility maintenance is carried out through community service, routine checks, and the responsibility of teachers and students in maintaining the cleanliness of classrooms and other facilities. Student participation, such as maintaining cleanliness and tidying up the classroom after learning, fosters an attitude of responsibility. Teachers also carry out light checks and convey damage to the management.

Finally, the deletion process is carried out on items that are severely damaged and can no longer be used. Items to be deleted are checked first, then recorded and reported to the madrasah head. However, the absence of a replacement plan for deleted items is an obstacle in itself, because damaged items do not immediately have a replacement.

Overall, the management of learning facilities and infrastructure at MAIC Cirebon has shown good efforts in supporting teaching and learning activities. The involvement of all components of the madrasah, from teachers, staff, to the madrasah head, creates a collaborative working atmosphere. However, there are still some aspects that need to be improved, especially in terms of documentation, information systems, and replacement plans. Improvements in these areas are essential to make the management of facilities and infrastructure more effective and able to have a real impact on improving the quality of education in a sustainable manner.

Conclusions

1. The condition of learning infrastructure at MAIC Cirebon is generally adequate and able to support teaching and learning activities. Facilities such as classrooms, laboratories, computer rooms, and libraries are available, although their utilization can still be improved. Teachers, education

personnel, and students agree that the current conditions are supportive, but not yet fully ideal. In other words, the facilities and infrastructure at MAIC Cirebon are at a good level, but still require gradual improvement so that the quality of learning is optimized.

2. The quality of education at MAIC Cirebon, the quality of education is reflected in the competence of students who continue to grow, professional teacher performance, and madrasah management that is responsive to needs. An organized learning environment supported by adequate facilities also plays an important role in supporting the improvement of the quality of education. The better the management and availability of infrastructure, the greater the opportunity for students to grow optimally, both in terms of knowledge, skills, and character building.
3. Implications The implementation of good infrastructure management at MAIC Cirebon has a direct impact on improving the quality of education. If planning, procurement, distribution, inventory, maintenance, and elimination are carried out optimally, the learning process can run more organized and feel comfortable. This creates a comfortable environment, motivates students to study harder, and supports teachers in delivering material optimally. Thus, optimally managed infrastructure facilities make a real contribution to improving the quality of education at MAIC Cirebon.

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