



Management of Educational Facilities and Infrastructure

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Abstract: The management of facilities and infrastructure in schools is an important aspect in creating a conducive learning environment. This article aims to analyze the process of facilities and infrastructure management which includes planning, procurement, distribution, maintenance, inventory, and elimination of educational facilities. This study uses a literature study method by collecting data from various literature sources. The results showed that regular planning and support from the government and the school contributed positively, but there were obstacles such as limited management authority and lack of awareness of the facilities. Therefore, there needs to be collaboration between all parties and increased awareness to maximize the use of facilities and infrastructure, in order to achieve effective and efficient educational goals.

Keywords: Management, Facilities and Infrastructure, Education

Introduction

Education is an important aspect of human life, allowing individuals to develop intellectual, mental, social, emotional, and independent abilities. Quality education is needed so that humans are able to face the challenges of the times. Because the competition between educational institutions is getting tighter, education management must be professional. If managed as it is, the institution will be abandoned by the community. Education is a planned effort to carry out the teaching and learning process continuously. One of the important factors in supporting education is the availability of adequate facilities and infrastructure in schools (Hidayat Rizandi et al., 2023; Nasrudin & Maryadi, 2019).

Educational facilities and infrastructure are important facilities needed in the learning process in educational institutions. This facility is one of the indicators of the quality of education that must continue to be improved in line with the development of science and technology. This is the most important part that must be held. The need for facilities and infrastructure needs to be implemented because it supports the development of students' skills, so that they are ready to compete with the rapid progress of science and technology (Torismayanti et al., 2023).

The quality of a school can be measured from the completeness and availability of existing facilities and infrastructure, which play a very important role in supporting the learning process, both in the academic and non-academic fields. Therefore, it is necessary to make efforts to provide adequate and complete facilities so that learning can take place optimally and achieve the expected results. The implementation of effective and efficient education certainly requires good management of facilities and infrastructure in schools (Nurmadiyah, 2018).

Management is a process that involves a series of activities such as planning, implementation, and supervision that are carried out to achieve the goals that have been set by utilizing human resources and other resources effectively and efficiently. Facilities and infrastructure include all objects or goods used to support the learning



process, either directly or indirectly, in an educational environment (Hakim, 2016). Based on this understanding, it can be concluded that facilities and infrastructure management is a process of planning, organizing, mobilizing, and supervising the use of facilities and infrastructure in schools to achieve educational goals. This management aims to ensure that all existing facilities can be used optimally, effectively, and efficiently. With good management, schools can ensure that the facilities available support the teaching and learning process to the maximum, both directly and indirectly.

School management can run effectively and efficiently if it is supported by professionals in school management, a curriculum that is tailored to the development and characteristics of students, as well as the high ability and commitment of competent educators. These factors must also be supported by adequate facilities and infrastructure to support the teaching and learning process, sufficient budget to pay staff according to their responsibilities, and active involvement from the community. If one of these elements does not function properly or does not run as expected, the effectiveness and efficiency of school management will decrease (Mansur, 2020). Therefore, there needs to be a balance between these components. To achieve this, managers must understand the principles of school facilities and infrastructure management in order to realize the expected educational goals.

Method

This study uses a library research approach, which focuses on collecting data from various available reading sources. According to (Mirzakon, Abdi & Purwoko, 2005) Literature studies include any efforts made by researchers to gather information relevant to the topic or problem that is being or will be researched. Various library materials and information used come from journals, articles, books, mass media, and other reading sources.

Results and Discussion

Definition of Facilities and Infrastructure Management

Management is the process of empowering resources to achieve predetermined goals, which involves stages such as planning, organizing, directing, and supervising. Means include all devices, materials, and equipment (such as classrooms, books, libraries, laboratories, etc.) that are directly used in the educational process in schools. Meanwhile, infrastructure includes facilities that indirectly support the educational process, such as yards, parks, roads to schools, rules, and so on (Ainiyah & Husnaini, 2019). Facilities and infrastructure are facilities used to support educational activities and supporting activities.

According to (Nurstalis et al., 2021) Facilities and infrastructure management includes management activities that include needs planning, procurement, storage, distribution, utilization, maintenance, inventory, removal, and management of school land, buildings, equipment, and furniture in an appropriate and targeted manner. Based on the above, facilities and infrastructure management is a process of planning, organizing, directing and supervising facilities that support the running of the educational process in schools. Good management aims to maximize the use of these facilities effectively and efficiently to create a conducive and sustainable learning environment.

The management of facilities and infrastructure in schools requires a process similar to management in general, which includes the stages of planning, organizing,



moving, maintaining, and supervising. All school needs related to facilities and infrastructure must be well planned to support the entire learning process. Educational facilities include devices and equipment that are used directly in teaching and learning activities. Meanwhile, educational infrastructure includes basic facilities that support indirect learning activities, such as classrooms, libraries, offices, UKS rooms, student council rooms, parking areas, laboratories, and others.

Facilities and Infrastructure Management Process

a) Facilities and Infrastructure Planning

Planning school facilities and infrastructure is carried out by analyzing the need to adjust to the development of the school, replacing damaged or lost items, and carrying out accountable removals. The purpose of this planning is also to find out the estimated cost required. To meet the needs of educational facilities and infrastructure appropriately, planning must involve various related parties in the development of school facilities and infrastructure, so that each party can provide input according to their expertise. The parties that need to be involved include: school principals, teachers, head of administration, treasurer and school committees. The analysis of educational facilities and infrastructure involves classroom teachers and subject teachers in supporting student learning, but the role of classroom teachers in analyzing needs is greater than that of subject teachers because classroom teachers have overall responsibility for the learning and development of students in the classroom (Devianti & Dita Dzata Mirrota, 2021; Fathurrahman & Putri Dewi, 2019; Nasrudin & Maryadi, 2019).

Planning for the procurement of educational facilities and infrastructure must pay attention to the following things (Nurbaiti, 2015):

- 1) Conformity with needs and abilities because of inappropriate goods can be a source of waste
- 2) Appropriateness of the amount and not excessive or insufficient
- 3) Always good quality for effective use
- 4) The type of tools or items needed must be appropriate and can increase work efficiency

Good planning can reduce the possibility of errors and increase effectiveness and efficiency in the procurement of facilities and infrastructure. In planning, it is determined what will be done, who is responsible and when it will be implemented with the aim of identifying and prioritizing the most important needs. Therefore, a good information system and coordination between the planning team and procurement officers are needed through direction from the leadership.

b) Procurement of Facilities and Infrastructure

The procurement of facilities and infrastructure is the process of providing various types of facilities according to the needs to achieve educational goals. This procurement is a follow-up step of the facilities and infrastructure planning activities that have been determined in the deliberations. In its implementation, schools are advised to make a checklist to record the facilities and infrastructure that are already available and those that have not. The coordinator of facilities and infrastructure strives to provide the necessary items to support the learning process of students.

The procurement of facilities and infrastructure is carried out when there is equipment that is damaged, lost, or based on a proposal from the teacher submitted in the year-end meeting, after analyzing the needs of learning equipment for the



coming year. Requests for procurement of goods usually come from the needs of school residents or the results of direct observation by the parties responsible for the procurement process. Planning procedures for the procurement of educational facilities and infrastructure according to (Hajeng Darmastuti, 2014) Include:

- 1) Establishment of a procurement committee
- 2) Determination of equipment requirements
- 3) Specification determination
- 4) Unit pricing of goods
- 5) Testing all possibilities
- 6) Recommendations
- 7) Reassessment.

c) Distribution of Facilities and Infrastructure

The distribution of facilities and infrastructure is an activity that involves the transfer of goods and responsibilities from the storage party to the party in need. There are three stages in the distribution of educational supplies in schools, namely the preparation of goods allocation, delivery of goods, and delivery of goods. In this process, there are several principles that need to be considered, such as the accuracy of the type of goods being distributed, the accuracy of the target recipients, and the condition of the goods being sent. According to Ibrahim Bafadal in Devianti & Dita Dzata Mirrota (2021) Especially for the preparation of goods allocation, there are four important aspects that must be considered, as follows:

- 1) Receipt of goods, where the recipient is responsible for the list of goods received.
- 2) The time for distributing goods and goods must be adjusted to the needs related to the teaching and learning process.
- 3) The type of goods distributed is to facilitate management and distinguish the types of equipment in schools.
- 4) The number of goods distributed to ensure the condition of the goods that have been distributed can be clearly known and requires firmness regarding the number of goods distributed

d) Maintenance of Facilities and Infrastructure

Maintenance of facilities and infrastructure is an effort to manage and regulate educational facilities so that they are always in optimal condition and ready to be used effectively to support the achievement of educational goals. Maintenance aims to prevent damage so that facilities and infrastructure remain in good condition and ready to use (Nurstalis et al., 2021). Maintenance steps start from careful use of goods, maintenance also includes special care that requires certain skills, depending on the type of goods used. Facilities and infrastructure must always be in a ready-to-use condition to support the smooth learning process in schools.

Once a school has the necessary facilities and infrastructure, it is very important to utilize it effectively and efficiently according to its function. The use of these items involves the process of using and borrowing managed by school members with the aim that existing items can be used as needed. In addition to being well arranged, routine maintenance ensures that facilities and infrastructure remain comfortable to use, neat, not damaged quickly and can support all school residents in carrying out their respective duties. According to Mansur (2020) There are several types of maintenance of educational facilities and infrastructure in schools based on their nature and time.



- Based on their nature, maintenance is divided into four types:
 1. Maintenance in the form of checking equipment
 2. Preventive maintenance
 3. Maintenance for minor repairs
 4. Heavy repairs
- Based on the time of its implementation, maintenance is divided into two types:
 1. Daily maintenance, such as sweeping, mopping the floor, and cleaning the doors.
 2. Periodic maintenance, such as tile checking and wall repainting.

e) Inventory of Facilities and Infrastructure

Inventory of facilities and infrastructure is an activity that involves recording and compiling a list of goods in a systematic, orderly, and orderly manner in accordance with existing guidelines. The inventory process is carried out to improve effective management and supervision of facilities and infrastructure owned by schools. The principal may instruct staff or teachers to manage these duties and responsibilities (Hajeng Darmastuti, 2014).

Inventory of educational facilities and infrastructure in schools (Mansur, 2020) Include:

- 1) Recording of facilities and infrastructure through goods receipt books, goods purchase books, inventory master books and goods stock books (cards).
- 2) Creation of special codes for equipment classified as inventory items. The way to do an inventory is to create an item code and paste it or write it on a fixture that belongs to the inventory item category. The item code serves as a sign that indicates the ownership of the item. This code should be placed on an easy-to-read and visible part of the fixture. The goal is to make it easier for all parties to identify equipment in schools, both in terms of ownership, responsible persons, types, and groups. Item codes are usually numbers that reflect the department, location, school, and item in question.
- 3) All educational equipment in schools that are classified as inventory items must be reported. This report is usually called the goods mutation report and is compiled quarterly. In one school year, equipment reports are made in July, October, January, and April of the following year. In addition, facilities and infrastructure in schools are divided into routine items and project items, and reports for each category must be separated.

f) Elimination of Facilities and Infrastructure

The elimination of facilities and infrastructure is an activity carried out to eliminate or eliminate facilities and infrastructure that no longer have useful value (Lestari et al., 2015). This process is carried out when a facility and infrastructure can no longer be repaired, its service life has expired or is no longer in accordance with the needs of the school. So that these facilities and infrastructure will be written and included in the inventory of goods removal.

According to Devianti & Dita Dzata Mirrota (2021) The removal is carried out to remove facilities and infrastructure from the inventory list because they no longer function as expected, especially in supporting the learning process. During the inventory process, officers often find items or school supplies that are severely damaged, unusable, and the repair cost is too high, so it is more economical to buy new ones. In addition, officers may also find equipment that is excessive or outdated and not in accordance with current



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conditions. If the items are kept in storage, the cost of maintaining them will outweigh the benefits, both technically and economically. Therefore, the items need to be removed from the inventory. According to Ainiyah & Husnaini (2019) This removal aims to:

- 1) Prevent or limit greater losses due to the expenditure of funds on the repair of damaged equipment.
- 2) Prevent wasted money on securing useless equipment.
- 3) Removing the responsibility of institutions for maintenance and security.
- 4) Ease the burden of inventory.

Equipment to be removed must meet certain conditions and follow procedures in accordance with applicable laws and regulations. Items that deserve removal include:

- 1) Items that are severely damaged and can no longer be used
- 2) Items that do not meet your needs
- 3) Goods that are obsolete and no longer used efficiently
- 4) Items whose use is prohibited
- 5) Goods that have depreciated beyond the control of the management
- 6) Goods whose maintenance costs are not proportional to their benefits
- 7) Items that are excessive and no longer used
- 8) Items lost due to theft
- 9) Misappropriated goods
- 10) Goods that are burned or destroyed due to natural disasters.

Supporting and Hindering Factors for Facilities and Infrastructure Management

The supporting factor in the management of facilities and infrastructure in schools mainly lies in planning and procurement that is carried out regularly, for example once every six months. This regular planning allows the management of the facility to continue to support the needs of students in the learning process. Supporting internal factors include the availability of adequate facilities in the school environment, such as school buildings, laboratories, libraries, mosques, canteens, and internet access. These facilities play an important role in supporting student learning activities optimally. In addition, external factors that support the management of facilities and infrastructure are assistance provided by the government, both in the form of goods and funds, to support the completeness and sustainability of facilities in schools. This assistance, such as support from the education office, aspiration funds, and contributions from students' guardians, also helps to smooth the facility management process. This is coupled with great attention from school management and foundations, as well as a positive response to proposals and appeals from teachers related to the procurement of facilities and infrastructure.

An inhibiting factor in the management of facilities and infrastructure in schools that often occurs is the limited authority of facilities and infrastructure managers, especially in private schools, where full decisions regarding funding and facility management are usually in the hands of the principal or foundation. Infrastructure managers can only submit procurement and maintenance plans, but the final decision remains with school leaders, especially in terms of managing large funds. This is different from public schools, where the principal usually has full control over the management of infrastructure facilities (Sinta, 2019). In addition, another obstacle that often arises is the lack of concern from school residents, especially students, in



maintaining and maintaining existing facilities. Several problems such as the loss of practice tools, graffiti on the walls of classrooms and bathrooms, and a lack of awareness of the importance of keeping facilities clean indicate a low awareness of shared responsibility. In addition, the procurement of practical tools for non-vocational subjects, such as chemical equipment, is still a challenge that is difficult to meet. These things are obstacles in the effective and efficient management of facilities and infrastructure (Alwi et al., 2021). Overall, good management of facilities and infrastructure requires a balance between supporting and inhibiting factors, with an emphasis on careful planning, support from various parties, and increasing awareness of all school residents on the importance of maintaining and utilizing existing facilities.

Conclusion

The management of facilities and infrastructure in schools is a crucial process that includes planning, procurement, distribution, maintenance, inventory, and elimination of educational facilities. This process aims to create a conducive and sustainable learning environment. The main supporting factors in this management include regular planning, the availability of adequate facilities, and support from the government and schools. However, challenges such as limited management authority, lack of student concern for facilities, and difficulties in the procurement of non-vocational practice tools can hinder the effectiveness of management. Therefore, collaboration between all parties is needed, as well as increasing the awareness of school residents to maintain and utilize facilities and infrastructure optimally. Thus, good management can help achieve the expected educational goals.

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