

Improving Learning Quality Through Infrastructure Management

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Abstract: The purpose of this research is to analyze and explain the design, organization, execution, and oversight of infrastructure facilities in order to improve the quality of learning at SMP Negeri 01 Belitang II. This study employs a qualitative approach. Data analysis employs analysis, namely data reduction, data display, and conclusion making. The study's findings were examined through four components of infrastructure management implementation: planning, organizing, implementing, and supervising in order to improve the quality of learning at SMP Negeri 01 Belitang II. The infrastructure design step involves developing many programs and carefully preparing so that students may have pleasant amenities while not incurring high school costs. The organizational stage begins with the selection of those who will carry out the responsibilities or job of task division, including the principal, vice principal, teachers, and TU personnel. The principal determines the procedure of implementing infrastructure with the cooperation of the treasurer, and the deputy head of the facility supplies any items as needed. The infrastructure facilities are then supervised to ensure that their usage and maintenance function smoothly and do not interfere with the continuous learning process.

Keyword: Infrastructure, Improvement, Management, Quality of Learning

1. Introduction

Education has a strategic function in both intellectual and moral elements of personality development. As a result, education is regarded to be one of the most

crucial human necessities. However, not everyone understands and recognizes the value of knowledge in ensuring one's own survival. Then, in the context of social life, education also plays a part in learning by actively developing students' capacity to have religious spiritual power, self-control, personality, intelligence, noble character, and talents required by themselves, society, nation, and state. Education, ideally, may make a contribution to the country's life order. As stated by (Notoadmojo, 2012), education must assist students in becoming outstanding citizens in democracy or democratic citizens.

Whether we recognize it or not, education is always geared toward achieving certain goals. The objective of education, in a broad sense, is incorporated in every learning experience and is not established by outsiders. Growth is the purpose of education, and the number of educational goals is limitless. The goal of education is the same as the goal of life (Notoadmojo, 2012).

The fact demonstrates that the degree of school improvement is mostly controlled by the principal's leadership in improving the administration of educational facilities and infrastructure. In the educational process, facilities and infrastructure cannot be overlooked. The key supporting components in the implementation of educational activities are educational facilities and infrastructure. Because education cannot be implemented without adequate facilities and infrastructure. Buildings, classrooms, seats, tables, and instructional media are examples of equipment and supplies utilized directly in the teaching and learning process. Yards, school gardens, gardens, and roads going to school are examples of educational amenities and infrastructure that indirectly enhance the teaching process (Herawati, Arafat, & Puspita, 2020).

Assessment of facilities and infrastructure is an ongoing and fascinating issue, because the presence of facilities and infrastructure in education is vitally important in the educational process. Without educational facilities and infrastructure, the educational process will be extremely difficult, if not impossible. As a result, facilities and infrastructure must be managed with strong governance so that they can evolve dynamically and in line with the requirements and expectations of the times, but management of educational facilities and infrastructure has been viewed as educational facility planning activities. If this infrastructure is used directly for the teaching and learning process, such as a school garden to teach biology or a school yard converted into a sports field, the component's position changes to educational facilities, maintenance of educational

facilities and infrastructure, and distribution of educational facilities and infrastructure (Ellong, 2018).

To support teaching and learning activities, educational facilities and infrastructure require competent administration. Facility and infrastructure management is an activity that regulates the preparation of all equipment or resources for the implementation of the educational process in schools. Management of facilities and infrastructure is required to aid in the smooth operation of the teaching and learning process.

Facility and infrastructure management can be viewed as a temporary activity that begins with planning the needs, procurement, storage and distribution, utilization, maintenance, inventory, and elimination, as well as the arrangement of land, buildings, equipment, and school furniture that is effective and on target (Fiquriansyah, 2021). Educational facility and infrastructure management is responsible for managing and maintaining facilities and infrastructure so that they can contribute optimally and meaningfully to the educational process. These management actions include planning, usage, elimination, and structure in order to assist the educational process and attain goals in an effective and efficient manner.

Learning facilities and infrastructure are critical to the effectiveness of the learning process. According to (Jannah & Sontani, 2018), the following are the advantages of learning facilities and infrastructure: 1) Use of learning facilities can clarify messages and information, facilitating and improving learning processes and outcomes; 2) Increase and excite children's attention so that it can lead to learning motivation, more direct interaction between students and their environment, and allows students to learn on their own according to their abilities and interests, and 3) Provide students with a shared experience of events in their environment and allow direct interaction with teachers, society, and their environment, for example, through work. Others include tourism.

The comprehensive infrastructure supplied in schools, as well as effective management approaches, have a significant impact on the learning program (teaching and learning). Inadequate and insufficient materials will impede learning in classrooms. Similarly, inadequate management will diminish the utility of tools and equipment, even if the instructional equipment is in good shape. The supply of educational infrastructure in schools must be tailored to the requirements of pupils as well as the future use of the outcomes.

Student happiness is influenced indirectly by educational infrastructure through the quality of learning. That is, educational infrastructure can indirectly boost student happiness and hence learning performance in both academic and non-academic sectors. Quality school facilities connected to the location where students carry out the teaching and learning process are required to create student accomplishment.

This study supports the findings of Radyan Yogatama's research at SMK Muhammadiyah 3 Surakarta, titled "Management of Educational Facilities in Improving the Quality of Learning at SMK Muhammadiyah 3 Surakarta in 2016," which concluded that infrastructure management is critical to improving the quality of learning. Infrastructure management tasks such as planning, procurement, inventory, maintenance, deletion, and evaluation are carried out in line with the appropriate infrastructure management process regulations (*View Metadata, Citation and Similar Papers at Core.Ac.Uk*, 2016).

However, based on preliminary observations, researchers discovered that the level of learning at SMP Negeri 01 Belitang II was still very low, owing to insufficient facilities at the school. The following phenomena demonstrate this:

- a. The library room at SMP Negeri 01 Belitang II is an old building since 1998 with a leaky roof
- b. The library of SMP Negeri 01 Belitang II still lacks books to promote learning.
- c. Cramped Counseling Guidance Room
- d. Counseling tools are not complete
- e. There are only 6 student toilets, not according to the number of 672 students
- f. The science laboratory at SMP Negeri 01 Belitang II is an outdated structure that has not been fixed since 1998, with broken faucets and leaky roofs.
- g. The space and sporting equipment are insufficient.
- h. There is no room for arts and skills
- i. Art tools and abilities are insufficient.
- j. The UKS room is small, and the UKS equipment is insufficient.
- k. There is no language laboratory to promote language study.

Based on the aforementioned theory and description of the difficulties, the authors would like to address the research title, "Management of Infrastructure in Improving the Quality of Learning at SMP Negeri 01 Belitang II."

2. Methods

SMP Negeri 01 Belitang II Jalan Raya Sumberjaya Village, Kec. Belitang II East OKU Regency, South Sumatra Province was the site of this study. The researcher conducted preliminary research at the school where the research was conducted. This research study is necessary so that researchers are aware of and comprehend the scope of the research to be conducted. During the pre-field stage, the researcher performs several tasks before to doing research, such as creating study proposals, acquiring research permits, and preparing for field research. Preparations included the creation of recording equipment, stationery, and cost estimates. At the field stage, the researcher collected the relevant data and conducted the initial analytic procedure directly. School principals, student representatives, curriculum representatives, sarpras representatives, science lab heads, library heads, computer lab heads, instructors, administrative personnel, and students carry out activities. The researcher reviews, interprets, categorizes, and explains the data acquired to draw conclusions during the data analysis step. At the completion of the analysis, the researchers compared the data collected in the field to the appropriate theory. Furthermore, inferences are formed based on the analysis.

3. Results and Discussion

Infrastructure management is required to deliver services in a professional manner so that the educational process in schools may be carried out properly and efficiently. It is predicted that effective and efficient management would boost the effectiveness and efficiency of school staff activities. The school will function successfully and efficiently with the current infrastructure in schools that satisfy the criteria. That is what every current school, including SMP Negeri 01 Belitang II, need (Ellong, 2018; Jannah & Sontani, 2018).

Educational facility management is responsible for controlling and maintaining educational facilities and infrastructure so that they can contribute optimally and meaningfully to the educational process. Planning, organizing, implementing, and monitoring are examples of managerial activities (Wahyudin, 2021).

Inadequate facilities and infrastructure can have an impact on the learning process in schools. As a result, variables that assist the application of the learning process must exist in an educational institution. As a result, facilities and

infrastructure are among the aspects that play a vital role in facilitating the educational process and achieving educational goals.

Educational facilities are areas where the learning process takes place in order for it to function smoothly and to motivate pupils to study. Infrastructure, on the other hand, is a facility that aids and supports the learning process. This can produce optimum and effective outcomes in developing a generation of knowledge with facilities and infrastructure that are in accordance with the aspirations of the world of education today (Al-Ghanabousi & Idris, 2010).

Quality education may be achieved by transforming an education system that is also supported by quality input components (Narullita, Fitria, & Mulyadi, 2022). As part of the study of educational administration, professional services in the field of facilities and infrastructure or work facilities for school workers are provided. Facilities and infrastructure are critical components in the implementation of education, thus they must be managed in such a way that the goals specified may be met successfully and efficiently. According to the study findings, the management of learning facilities and infrastructure in SMP Negeri 01 Belitang II is strongly connected to the activities of planning/procurement, distribution, usage, maintenance, inventory, and monitoring of learning facilities and infrastructure. This demonstrates the requirement for a process and competence in its management in order for successful management to be attained.

In general, facility and infrastructure management at SMP Negeri 01 Belitang II is shown in planning, coordinating, executing, and overseeing. The four primary keys in each organization are purposefully employed as the foundation for carrying out all types of school performance activities, particularly in SMP Negeri 01 Belitang II. As a result, in order to offer data that is more well-constructed, it will be addressed how SMP Negeri 01 Belitang II implemented its facilities and infrastructure strategy in managing facilities and infrastructure management (Saifulloh & Darwis, 2020).

Based on the findings of research observations, interviews, and documentation studies, SMP Negeri 01 Belitang II has obtained some data on infrastructure management in improving the quality of learning, which includes planning, organizing, implementing, and supervising infrastructure facilities in improving the quality of learning.

Infrastructure Planning for Improving Learning Quality at SMP Negeri 01 Belitang II

All equipment and media utilized directly in learning activities are referred to as learning facilities. Because the availability of diverse and innovative learning facilities generates a favorable learning environment, learning infrastructure will affect learning circumstances (Rokhmaniyah, Suryandari, & ..., 2020).

Educational institutions, particularly those on the formal education pathway, must be able to manage learning facilities by employing the idea of facilities management, which includes planning, procurement, inventory, usage, storage, and facility elimination. It is intended that by using the suitable management pattern, schools would be able to provide proper learning facilities in terms of quality, quantity, and quality, as well as be effective in accomplishing the expected learning objectives (Khoerunnisa & Aqwal, 2020).

The researchers conducted interviews with several related parties in order to investigate the planning aspects of learning infrastructure at SMP Negeri 01 Belitang II, including the Principal, Curriculum Representative, Student Representative, Sarpras Deputy, Head of Science Laboratory, Head of Computer Laboratory, Head of Libraries, Teachers, and TU staff.

After completing research at SMP Negeri 01 Belitang II, it appears that the principle places a high value on infrastructure development, particularly in their field of management, as seen by how principals organize their plans. Mr. Hartoyo, S.Pd, principal of SMP Negeri 01 Belitang II, said that the schools would continue to endeavor to enhance the level or quality of learning by completing the necessary educational infrastructure. If required, seek assistance from the committee so that students may study comfortably and the quality of learning improves.

SMP Negeri 01 Belitang II implemented numerous programs and devised a meticulous strategy to enhance and develop the management of infrastructure facilities so that students may enjoy pleasant amenities while avoiding incurring additional school fees. The first stage in developing learning infrastructure at SMP Negeri 01 Belitang II is to assess the educational requirements of the students. This is taken from the following interview excerpts with SMP Negeri 01 Belitang II's main responders. The processes we take in developing the facilities begin with documenting educational needs for the coming year. Then, depending on prioritized needs, compare the list of needs to the school's budget. Then create a final plan that includes a list of learning facility requirements.

Based on this information, it is possible to conclude that three steps are taken in planning the learning infrastructure in this school: 1) to record educational needs for the coming year, 2) to compare the list of needs with the school budget based on priority needs, and 3) to determine a final plan containing a list of learning facility needs.

Organizing Infrastructure to Improve Learning Quality at SMP Negeri 01 Belitang II

The principal of SMP Negeri 01 Belitang II develops infrastructure facilities to improve the quality of learning by selecting who will carry out activities or job distribution tasks, and establishing roles and working relationships with one another to avoid disputes and misunderstandings. School principals, vice principals in charge of infrastructure, teachers, and school administration personnel are among those involved in the management of infrastructure operations. The following activities are carried out in the organization: preparing a program of infrastructure activities, carrying out infrastructure analysis and needs, monitoring the procurement of student practice materials, receiving, inspecting, and recording goods into the master book, carrying out the distribution of goods/tools per related work unit, carrying out inventory of goods per work unit, recapitulate damaged goods, carrying out infrastructure management (Saifulloh & Darwis, 2020).

Analyzing and summarizing the infrastructure deployment at SMP Negeri 01 Belitang II to improve learning quality

The implementation of infrastructure facilities at SMP Negeri 01 Belitang II is carried out to address the infrastructure demands of teaching and learning activities in order to increase educational quality. Infrastructure facility implementation is a school autonomy with a distinct budget derived from BOS money and committees. The principal determines the procedure of establishing the infrastructure with the help of the treasurer, and the instructor supplies any goods that are required. The implementation process is mostly done through purchasing, such as the purchase of computers, books, tables and benches, and other infrastructure facilities. It can also be done through grants or giving, such as some books in the library, or it can be done by making your own, such as garden decorations, and purchasing supporting equipment. Following the completion of

learning and teaching activities, the necessary facilities will be delivered to each class and workplace (Novriliam & Yunaldi, 2012).

The process of implementing infrastructure facilities at SMP Negeri 01 Belitang II is in accordance with the theory regarding the process of implementing infrastructure facilities according to the Government's National Standard on infrastructure in Government Regulation Number 24 of 2007, and it is hoped that it will be carried out well. The process of implementing infrastructure facilities is the responsibility of the infrastructure manager, namely the field of infrastructure (Sanjani, 2019). Infrastructure maintenance activities are carried out by all school residents, including special officers, school principals, teachers, and other students who are responsible for maintaining and maintaining the available infrastructure, in the implementation of infrastructure facilities to improve the quality of learning. Cleaning computers is part of the maintenance performed during the deployment of infrastructure facilities. In this instance, classrooms are cleaned every day by students who are scheduled according to their picket schedules and supported by gardeners. During the interview, the principal stated that he was making an inventory of the school's current infrastructure by compiling books for the class of inventory goods and so on. Furthermore, the principal stated that the school furniture was organized as much as feasible, with leeway and left-right barriers, as well as the distance between one piece of furniture and another. Arrange the chairs on the left, centre, and right to allow the teacher to supervise the pupils who are studying. The current infrastructure at the school, according to the principal, was in compliance with the budget, and the classrooms were also in agreement with the demands of pupils.

The execution of infrastructure maintenance at SMP Negeri 01 Belitang II, particularly in the classrooms, is pretty good, as seen by the clean walls of the building and classrooms. A lovely classroom is enhanced by good paint.

Monitoring Infrastructure Facilities in Improving Learning Quality at SMP Negeri 01 Belitang II: An Analysis and Description

The representative of the infrastructure sector is in charge of facility and infrastructure supervision at SMP Negeri 01 Belitang II. This is clear from discussions with school administrators and representatives from the facilities and infrastructure industry. Facilities and infrastructure are supervised so that their usage and upkeep function smoothly and do not interfere with the continuous learning process (Sairi & Safrizal, 2018). Maintenance is performed to determine

whether the facilities and infrastructure are still fit for use; if the facilities and infrastructure are damaged, the acquisition of replacement facilities and infrastructure is planned. Supervision occurs twice a year, in each semester, by gathering all instructors and employees to report on facilities and infrastructure. Accountability (reporting) of school facilities and infrastructure is carried out once a year during the new school year at SMP Negeri 01 Belitang II, and there are no technical criteria for monitoring and accountability (reporting) of school buildings and infrastructure.

The supervision of facilities and infrastructure is carried out at all times, and their practicality is examined. It is advised to utilize it with caution so that the facilities and infrastructure are always available to use in order to boost the learning process in schools. The principal and instructors are in charge of this oversight. In this supervision effort at SMP Negeri 01 Belitang II, as Wakasarpras can control the tools we have through an inventory list that is attached to each cupboard where we put tools or components (eg, the number of inventory lists is in accordance with the condition of the goods in the cupboards), we can also carry out supervision through the inventory book by including the item code, so every six months we control the items written in the inventory book whether these items are in good condition (Interview with Vice Principal, September 2021).

According to Ms. Arie Artha Desi, S.Pd, the head of the library, the facilities and infrastructure in terms of monitoring at this school utilized item codes, and each item code was documented in the inventory book, so it was apparent what items the school possessed. The second method is to borrow books, which are normally found in the library. Any books that students borrow are tracked by writing in borrowed books, so that if they are lost, they may be tracked through the book (Interview with the Head of the Library 12 September 2021).

Every time they use practical tools or goods connected to learning assistance, a borrowing list book is created based on the monitoring and maintenance of facilities and infrastructure carried out by all school residents, such as the supervision of goods in each borrowing closet (Observation, 12 September 2021).

According to the principal, school infrastructure reporting is done every year at the start of the school year. This report is given to the education office once a year detailing the state of school infrastructure. The reported infrastructure facilities are the damaged and in need of repair infrastructure facilities (Misfeldt, Tamborg, Dreyøe, & Allsopp, 2019).

One of the managerial roles performed by the principal is monitoring or supervision (Hasanah & Kristiawan, 2019). Controlling educational infrastructure in schools is crucial in terms of both maintenance and empowerment. School administrators make an attempt to assist school workers in maintaining or maintaining, and utilizing school infrastructure as effectively as possible for the success of the learning process in schools. To ensure the effectiveness of the learning process in schools, all educational equipment designated as inventory items in schools must be recorded. Reporting is completed once a quarter within a specific time frame. For example, in one academic year, reporting can be completed in July, October, January, and April of the following year. The report's findings are utilized by the principal for evaluation.

4. Conclusions

SMP Negeri 01 Belitang II implemented numerous programs and devised a meticulous strategy to enhance and develop the management of infrastructure facilities so that students may enjoy pleasant amenities while avoiding incurring additional school fees. The principal of SMP Negeri 01 Belitang II organizes infrastructure facilities in order to improve the quality of learning by determining who will carry out tasks or work division of tasks, and determining the position and working relationship with one another so that there are no conflicts and confusion. The implementation of infrastructure facilities at SMP Negeri 01 Belitang II is carried out to address the infrastructure demands of teaching and learning activities in order to increase educational quality. The representative of the infrastructure sector is in charge of facility and infrastructure supervision at SMP Negeri 01 Belitang II.

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