Procurement and maintenance of facilities and infrastructure in inclusive schools

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ABSTRACT
Inclusive education ensures that students with mental and physical disabilities have equal access to regular schooling alongside their peers. Inclusive education aims to reduce prejudice toward children with disabilities. The purpose of this study was to investigate the planning, procurement, and maintenance of SMAN 14 Bandar Lampung's facilities and infrastructure. A descriptive qualitative method was adopted in this study, and data were collected from the school principal, vice-principal for student affairs, vice-principal for curriculum and academic affairs, vice-principal for facilities and infrastructure, vice-principal for public relations, school teachers, students’ parents, students, and stakeholders. Observation, interviews, and document studies were used to collect data. The findings indicated that the provisions were used to procure and maintain the school’s facilities and infrastructure. Routine, periodic, preventive, and repressive maintenance of facilities and infrastructure is performed, with procurement of facilities and infrastructure occurring once a year. Finally, the procurement and maintenance of infrastructure at the school under investigation were carried out in accordance with the plan established under existing provisions. Schools must maintain the quality of their facilities and infrastructure in order to remain operational.

KEYWORDS
Management; facilities and infrastructure; inclusive school

Introduction
Injustice in obtaining a proper education is a crucial issue in education. The injustice is that many students drop out of school because the opportunity to get the education they should get is not being fulfilled (Illah, 2013). The 1945 Constitution of the Republic of Indonesia clearly and unequivocally guarantees that every Indonesian citizen has the right to obtain education which is emphasized in the RI Law no. 20 of 2003 concerning the National Education System Article 3 concerning National Functions and Objectives, namely "National Education functions to develop capabilities and shape the character and civilization of a dignified nation in the context of educating the nation’s life, aiming to create the potential of students to become human beings who believe and fear God. The Almighty, having noble character, is healthy, knowledgeable, capable, creative, independent, and being a democratic and responsible citizen. Humans need the role of education from birth to death. In addition, the part of education is vast in advancing a nation to obtain intelligent and independent human resources.

Education is a conscious and planned effort to create a learning atmosphere and learning process. Students actively develop their potential to have religious, spiritual strength, self-control, personality, intelligence, noble character, and the skills they need, society, nation and state (Rahayu, 2013). With education, all citizens can develop their full potential and increase their insight, knowledge and talents (Astuti et al., 2021). Education must provide opportunities for children to grow and develop optimally, both physically, mentally and socially and help children to be able to position themselves well in living their daily lives, namely in a social, national and state environment by applicable laws and regulations. Education is one of the most fundamental human rights, protected and guaranteed by various international and national legal instruments (Subardi et al., 2020). Law Number 20 of 2003 in Article 5 Paragraph 1 states that every citizen has the same right to obtain a quality education. Paragraph 2 states that citizens who have physical, emotional, mental, intellectual and social disabilities have the right to receive special education.

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The opportunity to obtain education for every Indonesian child is a fundamental right that the government must fulfill as the holder of all policies and the obligation to provide education rights from various groups, including children with special needs. One aspect that gets the immediate attention of every educational administrator is educational facilities and infrastructure. Schools' facilities and infrastructure need to be appropriately managed to run effectively and efficiently (Janah et al., 2019). Facilities and infrastructure are all movable or immovable objects or goods used to support the implementation of direct and indirect learning processes in a (Rohiat, 2006). The achievement of educational goals can run smoothly, regularly, and efficiently (Mustari, 2011). Management Good facilities and infrastructure are expected to create clean, neat, and beautiful schools to create pleasant conditions for both teachers and students to be in school. In addition, there is also the availability of learning tools or facilities that are adequate quantitatively, qualitatively, and relevant to the needs and can be used optimally for the benefit of the education and teaching process, both by teachers as teachers and students as students.

Facilities and infrastructure are essential supporting factors in the learning process, both private and public schools. Without being supported by adequate facilities and infrastructure, it is challenging to expect high-quality educational processes and outcomes (Yustikia, 2019). The current low quality of educational methods and products in Indonesia is partly due to the lack of educational facilities provided by the government and the community (Annisa et al., 2016; Aziz & Munir, 2021). The importance of facilities and infrastructure in supporting the educational process is regulated by the Republic of Indonesia Law No. 20 of 2003 concerning the National Education System: "Each formal and non-formal education unit provides facilities and infrastructure that meet educational needs by the growth and development of physical potential, intelligence intellectual, social, emotional, and obligations of students. The teaching and learning process will be more effective and quality if supported by adequate facilities and infrastructure. With the management of facilities and infrastructure, education will utilize all educational facilities and infrastructure effectively and efficiently (Devianti & Mirrota, 2021). Nurbaiti (2015) stated that the management of facilities and infrastructure is to provide professional services in the field of educational facilities and infrastructure to implement the educational process effectively and efficiently. In planning for school facilities and infrastructure, it must be designed carefully and adequately to meet the needs of school facilities and infrastructure.

The teaching and learning process will be more effective and quality if supported by adequate facilities and infrastructure. With the management of facilities and infrastructure, education will utilize all educational facilities and infrastructure effectively and efficiently. Nurmalina (2020) Stated that the purpose of the management of facilities and infrastructure is to provide professional services in educational facilities and infrastructure to effectively and efficiently implement the educational process. In planning for school facilities and infrastructure, it must be designed carefully and adequately to meet the needs of school facilities and infrastructure. SMAN 14 Bandar Lampung has children with special needs who are diverse and complex. In studying, of course, they also have the same rights as children in general, especially in terms of receiving facilities and infrastructure suitable for children with special needs. Based on this, this study aims to determine what facilities are provided to support children's teaching and learning process and how to manage facilities and infrastructure at SMAN 14 Bandar Lampung.

**Literature review**

**Implementation of inclusive education in Indonesia**

Inclusive education is an innovative and strategic educational approach to expand access to education for all children with special needs (Jauhari, 2017). Inclusive education is a school that must accommodate all children regardless of physical, intellectual, socio-emotional, linguistic, or other conditions (Tarmansyah, 2007). The existence of inclusive education is to accommodate children with special needs in integrated schools and develop potential and save children's future from educational discrimination that tends to ignore children with special needs (Ilah, 2013). Inclusive schools are organized like regular schools but accept children with special needs as students by providing an educational service system tailored to children with special needs through curriculum adjustments, strategies/methods, facilities and infrastructure (Kadir, 2015).

Strategies, methods, or ways of implementing inclusive education vary widely. This diversity of implementation is because each country has a different culture and tradition. Inclusive education in Indonesia is implemented through various programs and activities carried out by the Ministry of National Education and the Education Office in the province, city, or district (Darma & Rusyidi, 2015). In Indonesia, inclusive education has been implemented since the 1980s. The success of inclusive education is influenced by many factors such as culture, politics, and human resources (Kwon, 2005). Although up to now, inclusive schools are still making improvements in various aspects, from an ideal perspective, inclusive schools are excellent schools for both children with and
without special needs. The environment created is very supportive of children with special needs. They can learn from the spontaneous interactions of their peers, especially from the social and emotional aspects. Meanwhile, children with no special needs allow them to learn to empathize, be helpful and have (Darma & Rusyidi, 2015).

**Inclusive school management**

The management of inclusive education is a process that is closely related to the objectives and effectiveness, and efficiency of implementing the education system for all students, including students with special needs (Lestari, 2019). Mulyati & Komariah (2008) education management is an arrangement of educational fields carried out through planning, organizing, staffing activities, coaching, coordinating, communicating, motivating, budgeting, controlling, monitoring, evaluating, and reporting to achieve goals. Quality education. School management will be effective and efficient if it is supported by professional human resources to operate the school. This curriculum is by students’ development and characteristics, the ability and responsibility for the duties of reliable education personnel, facilities and infrastructure that support teaching and learning activities, funds sufficient to pay staff according to their functions and high community participation (Mansur, 2020).

**Management of facilities and infrastructure**

Facilities and infrastructure are all movable or immovable objects or goods used to support the implementation of direct and indirect learning processes in education (Rohiyatun, 2019). Management of facilities and infrastructure can be interpreted as organizing activities, starting from planning needs, procurement, storage and distribution, utilization, maintenance, inventory and elimination as well as structuring land, buildings, equipment, and school furniture as well as being appropriate and on target (Sobri, 2009). Good management of facilities and infrastructure is expected to create a clean, neat, and beautiful school to create pleasant conditions for both teachers and students to be in school. The purpose of managing school facilities and infrastructure is to provide professional services so that the learning process can be done effectively and efficiently. With the management of educational facilities and infrastructure, we will utilize all educational facilities and infrastructure effectively and efficiently. According to (Imron, 1995), the purpose of facilities and infrastructure management, in general, is to provide professional services in educational facilities and infrastructure in the context of effective and efficient education.

**Methods**

This study uses a qualitative approach which aims to obtain information regarding the implementation of management of educational facilities and infrastructure in inclusive schools at SMAN 14 Bandar Lampung in detail and comprehensively from the focus and research conducted to answer research questions that have been formulated in research questions. With qualitative research, researchers can obtain an overview of the phenomena and realities that are relevant to the object of research. This study seeks to conduct in-depth and comprehensive observations of the symptoms and cases that occur in the field, and the data disclosed is not in the form of numbers but words and documents. In this study, what will be observed is the management of inclusive school facilities and infrastructure at SMAN 14 Bandar Lampung.

**Participants**

Determination of informants in this study was taken based on the criteria, namely, 1. Subjects are actively involved in the research target environment, 2. Subjects are willing and have time to be asked for information by researchers, 3. Issues can provide essential information according to the needs of researchers. Based on these criteria, the informants in this study were the principal (1 person), vice-principal for student affairs (1 person), vice-principal for curriculum (1 person), vice-principal for facilities and infrastructure (1 person), vice public relations principal (1 person), teachers (3 people), parents (1 person), students (2 people), and stakeholders (1 person).

**Data collection techniques and instruments**

Data collection in this study was carried out by observations made on research subjects and then recorded regarding things that happened in the field related to facilities and infrastructure, interviews using unstructured interviews and document studies divided into two types, namely public documents in the form of data on the existence of SMAN 14 and some documents regarding inclusive school facilities and infrastructure. With this technique, researchers will obtain primary and additional data regarding the management of inclusive school facilities and infrastructure at SMAN 14 Bandar Lampung.
Data analysis

The data analysis technique in this study is analysis (Miles et al., 2014) which consists of five flows of activities, namely: (1) data collection by searching and recording the results of observations and interviews, after data collection performed (2) data reduction by selecting, using, and processing data, after the data has been reduced then (3) displays the data or presents the data, (4) draws conclusions to be tested again with data in the field by reflecting again, (5) the final step is taking the conclusion which is the final analysis of new findings can be in the form of a description of an object.

Results

Based on the research results, research findings related to planning, procurement, and maintenance of facilities and infrastructure at SMAN 14 Bandar Lampung, are illustrated in the following figure:

Planning of facilities and infrastructure

Planning or planning is the activity of determining the facilities and infrastructure used to achieve the planned targets. The planning stage determines what must be done, how to do it, and who will carry out the activities in a program. Compiling a clear plan will make it easier for all elements in the organization to carry out their respective duties to contribute to achieving organizational goals. Planning for facilities and infrastructure in inclusive schools begins with a meeting between school principals, educators and education staff with committees and staff related to inclusive school programs. The panel discusses planning for inclusive school infrastructure. The following is a matrix of facilities and infrastructure planning:

Table 1. Matrix Planning of Facilities and Infrastructure

<table>
<thead>
<tr>
<th>Sub focus</th>
<th>Real Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning of Facilities and Infrastructure</td>
<td>During the meeting, data collection was carried out on school needs, especially for inclusive children in one year, input from several parties was accommodated and discussed together in the meeting. The scope of the discussion includes the purpose of providing educational facilities and infrastructure in supporting the teaching and learning process in schools. As for the planning requirements of the proposed facilities and infrastructure, are the funds available from the BOS funds, or are the schools attempted themselves or expect assistance from the Education Office. If these needs include critical needs and cannot be postponed any longer, the school will seek to fulfill these needs immediately. (W.Ka.Ks 3.1.22)</td>
</tr>
</tbody>
</table>

Based on the research findings matrix, the planning diagram can be described as follows:

Figure 1. Facilities and Infrastructure Planning

Procurement of facilities and infrastructure

Procurement is a series of activities providing various educational facilities and infrastructure by the need to achieve academic goals. The need for facilities and infrastructure can be related to the type and specifications, quantity, time, place, price, and sources that can be accounted for. Facilities procurement is an activity associated
with providing all goods/objects/services to carry out tasks. Each type of facility has a different procurement method; as stated by Prihatin (2011) that the procurement of buildings can be done by building new, buying, renting, receiving grants and exchanging structures. The procurement of equipment or furniture can be done by buying. The following is the matrix for the procurement of facilities and infrastructure:

**Table 2. Matrix Procurement of Facilities and Infrastructure**

<table>
<thead>
<tr>
<th>Sub Focus</th>
<th>Real Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement of Facilities and Infrastructure</td>
<td>&quot;The procurement process for facilities at this school is carried out by buying. The purchase is taken from funds made by schools sourced from BOS, BOSDA, parents and inclusion funds. The implementation of inclusive facilities and infrastructure is carried out every fiscal year. Procurement of facilities and infrastructure related to the classroom, namely, (1) the teacher reports to the school what facilities need to be purchased to support class facilities (2) the principal will make direct observations and report it to the sarpras coordinator from the Foundation (3) the sarpras coordinator will see go directly to the location to re-check and see the budget for the goods to be purchased then record it for submission to the finance department for procurement (4) the sarpras coordinator purchases facilities when funds have fallen and, (5) distributes facilities to classes in need after inventory is made and get a receipt from the school” (Wk. Ks .4.1.22).</td>
</tr>
</tbody>
</table>

Based on the research findings matrix, the planning diagram can be described as follows:

**Figure 2 Procurement of Facilities and Infrastructure**

**Maintenance of facilities and infrastructure**

Maintenance is an ongoing activity to ensure that existing educational facilities and infrastructure remain excellent and ready to be used. Of course, this needs to be supported by using educational facilities by procedures and caution. Knowing how to manage facilities and infrastructure in terms of maintenance at SMA Negeri 14 Bandar Lampung is illustrated in the following matrix:

**Table 3. Maintenance of Facilities and Infrastructure**

<table>
<thead>
<tr>
<th>Sub Focus</th>
<th>Real Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance of Facilities and Infrastructure</td>
<td>&quot;Maintenance of educational facilities and infrastructure in the form of cleanliness of the classroom environment is handed over to each class, coordinated by the homeroom teacher and class leader in each category. The homeroom teacher is in charge of compiling a cleaning schedule by involving all students in the class. Each student gets a turn once a week to clean the classroom, both in the morning (entering class) and afternoon (when returning home). As for&quot;</td>
</tr>
</tbody>
</table>
the maintenance of the administrative room, teachers, principal's office and schoolyard, some special officers clean them every day who are paid from BOS funds. In addition to cleaning the room and yard, the officer is also tasked with checking electricity consumption, opening and closing office and classroom spaces. " (W.Gr.4.1.22)

Based on the research findings matrix, the planning diagram can be described as follows

![Diagram of Maintenance of Facilities and Infrastructure]

**Figure. 3 Maintenance of Facilities and Infrastructure**

**Discussion**

Adequate facilities and infrastructure need to be provided to schools that provide inclusive education so that students can understand learning effectively and efficiently (Imaniah & Fitria, 2018). The existence of educational facilities and infrastructure is necessary for the educational process. It is included in the components that must be met in carrying out the educational process. Support for successful learning in inclusive schools at SMAN 14 Bandar Lampung can be seen from the contribution of readiness in terms of facilities and infrastructure to implement an inclusive education service system. Amka (2020) details as follows: 1) The school has a resource room (particular class) equipped with adequate equipment, media, and learning resources; 2) The school building has been equipped with special facilities that are accessible for children with special needs; 3) The school has facilities to support the mobility of children with special needs according to the type of disorder; 4) Schools provide accessible bathrooms or toilets for wheelchair users; 5) Schools have adequate learning aids according to children's needs; 6) The school provides wheelchairs; 7) Schools provide white sticks for blind people; 8) The school provides writing aids (Braille).

Research conducted on managing procurement and maintenance of inclusive school facilities and infrastructure at SMAN 14 Bandar Lampung has three phases: planning, procurement, and maintenance. Management of facilities and infrastructure at SMAN 14 Bandar Lampung begins with facility planning. Good planning will anticipate problems, such as purchasing errors or waste. Planning for facilities and infrastructure must be adapted to the needs of students because the specificities possessed by children are different. The planning process for facilities and infrastructure begins with conducting a coordination meeting to analyze and evaluate the need for facilities and infrastructure needed to support the learning process in the classroom and outside the school, attended by the entire board of teachers, employees, administration, and school principals. This meeting was held regarding data collection on the needs of schools, especially for inclusive children, within one year. This is an important step that every educational institution must take. This is in line with the theory (Kompri, 2014), which states that the needs analysis for educational facilities and infrastructure is carried out in the planning process. The investigation concerns the needs of facilities and infrastructure in learning.

Inclusive school program planning can be successful with maximum results if there is active support, awareness, and great responsibility for changing behaviour towards an inclusive school culture. In terms of planning for inclusive schools at SMAN 14 Bandar Lampung, priority scales are always arranged with various considerations, including a) the level of importance of the provision of these facilities; b) to fulfil educational facilities and infrastructure that are expensive, such as the purchase of some electronic equipment, schools can consider several things: first, the school delays the procurement by taking into account the priority scale. Second, do it gradually.
The third is included in the list of proposals to the Education Office in the form of a bid. Fourth, ask for help from the school committee or students’ parents to support educational facilities and infrastructure procurement. In this case, the priority scale in planning is necessary to manage facilities and infrastructure.

The facilities and infrastructure available at SMAN 14 Bandar Lampung include road mobility for wheelchair users, toilet seats, Braille Koran. At the same time, school learning media prepares LCDs, but there is a lack of supporting tools in learning media. Namely, students bring their laptops. This is because the funds for the procurement of facilities and infrastructure are still minimal. However, the overall planning of inclusive school facilities and infrastructure at SMAN 14 Bandar Lampung is good.

The procurement of facilities and infrastructure is essentially a continuation of the planning program that the previous school has prepared. This procurement must be carried out according to the plans that have been prepared by taking into account the priority scale needed by the school to support the successful implementation of the learning process. Procurement of facilities and infrastructure at SMAN 14 Bandar Lampung provides various types of facilities and infrastructure by the needs to achieve educational goals. (Matin & Fuad, 2017) procurement of educational facilities and infrastructure is an activity of providing all types of facilities and infrastructure according to needs to achieve educational goals. Procurement of facilities and infrastructure must have clear and detailed specifications, including quantity, type and price. In addition, it must pay attention to the utility factor, namely usability and quality standards. Devianti & Mirrota (2021) state that procurement of facilities and infrastructure can take the procurement of books, tools, furniture, and buildings.

Each type of facility has a different procurement method. Procurement of facilities is an activity related to providing all goods, objects and services to carry out tasks. The way to procure inclusive school facilities and infrastructure at SMAN 14 Bandar Lampung is done by direct purchase, assistance from the Education Office, school committees, and student guardians. The process of procuring facilities and infrastructure for children with special needs at SMAN 14 Bandar Lampung is carried out every year. The purchase is taken from funds made by schools sourced from BOS, BOSDA, parents, and inclusion funds. The process of procuring facilities and infrastructure related to the classroom by going through the process, namely: 1) the teacher reports to the principal about what facilities and infrastructure need to be purchased to support class facilities; 2) then, the principal will make direct observations and report it to the facilities and infrastructure coordinator from the Foundation; 3) the coordinator of facilities and infrastructure will look at the budget for the goods to be purchased and then submit a proposal to the finance department for procurement; 4) the coordinator of facilities and infrastructure purchases facilities and infrastructure if the funds already exist; 5) after the facilities and infrastructure coordinator buys the facilities and infrastructure, then distributes them to the class in need after the inventory is carried out and gets a receipt from the school. The procurement of facilities and infrastructure for children with special needs at SMAN 14 Bandar Lampung is adjusted to the needs of these children.

In addition to buying facilities and infrastructure at SMAN 14 Bandar Lampung also received assistance from the Education Office, which was provided directly or indirectly. Direct aid means that the assistance is given to the school without going through the process of submitting a proposal. While the assistance provided from the service indirectly, namely, the school must go through a process by submitting a proposal with procedures, 1) the school proposes the procurement of facilities and infrastructure which is addressed to the Education Office; 2) if approved, it will be reviewed and assessed for eligibility to obtain approval from the intended party; 3) after being visited and approved, the facilities and infrastructure will be sent to the school. The assistance provided by the Education Office for children with special needs is in the form of wheelchairs.

Equipment maintenance is an activity that is continuously carried out to ensure that each type of item remains in good condition. Maintenance is carried out to keep the equipment in a ready-to-use state or repair the equipment until the situation can work again. Infrastructure facilities that are used to support the teaching and learning process activities will eventually experience damage, so a good maintenance is needed for users of these facilities and infrastructure. Maintenance of educational facilities and infrastructure is periodic maintenance that includes maintenance of school buildings, replacement or repair of school facilities such as tables, chairs, air conditioners, LCDs, & etc. Benty (2017) periodic maintenance includes facilities and infrastructure used in the long term, maintenance carried out such as replacement of spare parts, replacement with the latest specifications. Regular maintenance is one of the steps that must be taken to minimize new purchases that require more significant funds. Suppose there is damage to facilities and infrastructure at SMAN 14 Bandar Lampung. In that case, the school involves the roles of all students, teachers, school employees to the school principal to repair the damaged facilities jointly, if it cannot be fixed by itself, the school will take it to a repair place. One of the ways this is done is to minimize the expenditure of funds.

Maintaining facilities and infrastructure through checking is carried out at the initial purchase of goods, such as the purchase of electronic goods such as computers, printers, and so on. In teaching SMAN 14 Bandar Lampung already utilizes learning technology. Namely, all classrooms are provided with facilities in the form of
LCDs. The maintenance of learning media and classrooms is handed over to each homeroom teacher and assisted by all students by arranging picket schedules that involve all students, including children. Of course, children with special needs are always under the supervision of the teacher. Facilities and infrastructure that have been appropriately conditioned will be able to support the learning process well.

Meanwhile, for the school building and yard maintenance at SMAN 14 Bandar Lampung, it is handed over to the guards or school building cleaners. Maintaining inclusive schools at SMAN 14 Bandar Lampung is carried out jointly by involving employees, teachers, principals, and children with special needs. All school residents participate in maintaining the cleanliness of the school by not scribbling on the walls, using water and electricity as necessary, always keeping the toilets clean to make the facilities and infrastructure effective for use.

Conclusion

Planning and procurement of facilities and infrastructure are carried out every year to complete children with special needs facilities. The school budget activity plan states the need for facilities and infrastructure, implementation, and person in charge. Procurement of facilities and infrastructure is carried out by the requirements of children with special needs, which is carried out using purchases or assistance from the Education Office so that the learning of children with special needs is not left behind with regular children. Maintenance and repair of facilities and infrastructure based on teachers’ requests and care are regularly carried out by involving all school members and several technicians. Planning, procurement, and maintenance of facilities and infrastructure in improving the learning process at SMAN 14 Bandar Lampung is optimal. Adequate facilities and infrastructure can improve the learning process. The management of facilities and infrastructure at SMAN 14 Bandar Lampung has created a conducive and active classroom atmosphere.

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