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Survey of Physical Education Facilities and Infrastructure at Karang Endah 1 State Elementary School

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Abstract

This study aims to determine the infrastructure and facilities for physical education at State Elementary School 1 Karang Endah. The research used is in the form of quantitative descriptive research in the nature of a survey, in which research involves observing, recording the condition of objects or subjects in the field. The focus of this study is the population in this research is State Elementary School 1 Karang Endah, which will explain the state and quantity of infrastructure and facilities in the school to support the method of instruction and learning exercises. In order to gather data for this study, observation, documentation and literature. The instrument in this research is to use an observation sheet as a tool to collect data from the findings of the survey that was conducted. From the results of calculations of the availability and condition of infrastructure and facilities for physical education at State Elementary School 1 Karang Endah in athletics 6.25% games in the extremely bad category comprise 11.36% of the total, gymnastics 32.03% in the category lacking, martial arts sports 0% in the category of extremely poor. And the condition of physical education infrastructure in athletics is 16.6% Under the category of extremely poor, and games sports are 60% in the moderate category.

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INTRODUCTION

The development of quality education is primarily supported by human resources. The active role of the government is crucial in fostering educational initiatives, both formal and informal, to improve human resource quality. Sports and physical activities are essential components of the overall education system. Their objectives include the development of physical fitness, critical thinking skills, social interaction abilities, reasoning capacity, emotional balance, moral integrity, and enhanced mental capabilities. Achieving national education goals involves adopting healthy lifestyles and maintaining environmental cleanliness, implemented through systematically and carefully designed physical activities, sports, and health programs.

In schools, the subject of physical education, sports, and health encompasses various elements such as sports games, physical activity development, gymnastics, rhythmic exercises, and health education. Law No. 20 of 2003 concerning the National Education System, in Chapter XII Article 45, states that every educational institution, such as schools, must provide the necessary facilities and infrastructure to support the learning process, including physical education. Essentially, physical education aims not only to improve physical health but also to foster positive attitudes that enable individuals to engage in activities that do not harm themselves or others. This aligns with the National Sports Law issued by the Ministry of Youth and Sports, Number 3 of 2005, in Chapter XI Articles 3 and 4, which emphasizes that the development of sports facilities and infrastructure must consider the potential for sports development within the local community. Physical education has a very important role in providing opportunities for students to be directly involved in various learning activities, in order to develop their movement abilities through games and physical activities (Iyakrus, 2023). However, there are still many who think that sports education learning is often ignored and considered unimportant in schools (Iyakrus, 2022).

Subjects like health and physical education are vital in encouraging students' growth as individuals and members of society, allowing them to grow and develop naturally. This is because physical education focuses on sports activities and the application of healthy lifestyles. The learning process requires tools or media to support its smooth implementation. In the context of physical education, facilities and infrastructure function as supporting media. The success of communication in learning is highly influenced by the availability of facilities and infrastructure, making the achievement of learning objectives dependent on the quality and completeness of the available resources.

Physical education in schools requires adequate facilities and infrastructure to achieve its learning objectives. The availability of physical equipment for practice plays a crucial role in determining the speed at which students understand and master the material being taught. Physical education will not be optimal if its facilities and infrastructure are insufficient. These resources play a vital role and must align with needs while being operated appropriately. Therefore, every training class must be equipped with adequate facilities and infrastructure. Moreover, these facilities must meet the necessary standards to support the creation of an optimal and effective physical education learning environment. The scope of physical education in Indonesia includes various activities, including sports and games, developmental exercises, rhythmic exercises, water exercises, and outdoor exercises, as well as topics related to health (Mustafa, 2020).

According to Nursalam (2016, 2013), sports facilities built in an area must adhere to the established standards and minimum requirements set by the government. Several factors influence the effectiveness of well-implemented physical education programs, including teaching staff, students, curriculum, supporting facilities, objectives, teaching methods, environment, and evaluation processes. Among these factors, the teacher's role is the primary determinant of the success of the learning process. Additionally, the availability of sports facilities and infrastructure significantly contributes to achieving optimal learning outcomes. According to Purnama and Siliwangi (2017), physical education in schools requires adequate sports facilities to support the learning process. Without these facilities and infrastructure, learning activities cannot proceed effectively or optimally.

Many rural schools have large areas of land that could be used as fields for students' physical activities. However, inadequate field management often creates challenges for students in carrying out sports activities. Ideally, fields should be designed to meet students' learning needs, not just focus on size but also comply with the required field standards. The limitation of movement among students may result from a lack of physical education facilities. Students often have to queue to use sports equipment, causing boredom and a lack of enthusiasm for practical activities

due to long waiting times.

Physical education facilities do not always have to include large fields or standard running tracks. Infrastructure can be adapted and drawn from the surrounding environment, such as footpaths, trees, or other natural elements. The essential aspect is ensuring students remain active and achieve physical fitness. This modified learning approach also helps reduce students' boredom during physical education activities.

The condition of facilities and infrastructure at State Elementary School 1 Karang Endah remains unclear. Furthermore, researchers have not obtained information regarding the completeness of facilities and infrastructure accessible for physical education. Even if these resources are available, there are doubts about whether they are in good condition and utilized effectively in the physical education learning process. This uncertainty forms the basis for further research into the condition of physical education facilities and infrastructure at the school.

METHODS

The type of research used in this study is quantitative descriptive analysis with a survey approach, where the research involves observing and recording the conditions of objects or subjects in the field. Survey research is a method used to collect and obtain information utilizing notebooks or observation sheets as data collection instruments. Quantitative research involves developing theories, designing studies, formulating hypotheses, and selecting subjects, all supported by processes of data collection and analysis, followed by drawing conclusions from the analysis results. According to Berryman, quantitative research is based on a scientific approach, employing research methods that apply a logical-hypothetical approach (Berryman, D. R., 2019).

In this study, the instrument used is a survey utilizing observation sheets as tools for collecting data and recording the results of the conducted survey. The research instrument refers to the minimum standards for the availability of facilities and infrastructure at the junior high school level for sports, health, and physical education, as outlined in Regulation of the Minister of National Education Number 24 of 2007 regarding criteria for educational facilities and infrastructure, as follows **Table 1**:

Table 1. Types, Ratio, and Descriptions

Types	Ratio	Description
Football equipment	1 set/ school	At least 6 balls
Volleyball equipment	1 set/ school	At least 6 balls
Basketball equipment	1 set/ school	At least 6 balls
Gym equipment	1 set/ school	At least a mattress, jump box, stick, single stick, plastic ball, and bracelet.
Athletic equipment	1 set/ school	Relay sticks, bathtub jumps, shot put, discus and javelin at a minimum.

Source : Permendiknas Nomor 24 Tahun 2007

The data analysis method in this study employs descriptive analysis to evaluate the extent of completeness of physical education facilities and infrastructure available at State Elementary School 1 Karang Endah.

1. It presents the ratio between the number of physical education facilities and infrastructure for each sport included in the curriculum used by the school as a guideline for the ideal number of facilities. This ratio is then calculated as a percentage using the formula by Arikunto, as cited in Arman (2014: 5).

Percentage=(Number of percentages available/ Ideal number of facilities) x 100

Tabel 2. Assessment Percentage Standards

Amount	Percentage	Category
81 - 100	100 %	Excellent
61 - 80	80 %	Good
41 - 60	60 %	Currently
21 - 40	40 %	Less
0 - 20	20 %	Very Less

Source: Arikunto Didalam Arman (2014: 5).

RESULTS AND DISCUSSION

State Elementary School 1 Karang Endah is an elementary school located in Semendawai Suku III Sub-district, specifically in Karang Endah village, East Ogan Komering Ulu (OKU) Regency. The research focused on surveying the physical education facilities and infrastructure

at State Elementary School 1 Karang Endah. The data collected for identification included various information related to the facilities and infrastructure used in physical education, such as their condition, quantity, and ownership status. After data collection, the analysis focused on equipment such as volleyballs, footballs, and basketballs. Gymnastic equipment, including mats, vaulting boxes, jump ropes, hoops, plastic balls, sticks, and rings, was also evaluated. Additionally, the availability of sufficient space for play and sports activities was considered, along with sports equipment like javelins, discus, shot puts, relay batons, and sandpits for jumping. The results of the research describe the state of physical education facilities and infrastructure at State Elementary School 1 Karang Endah as follows:

Quantity of Physical Education Facilities and Infrastructure at State Elementary School 1 Karang Endah

Following the data collection process at State Elementary School 1 Karang Endah, the research results were obtained. The findings are presented in the table **Table 3.**

Table 3. Existence of Physical Education Facilities

Facility	Standard Quantity	Quantity	%
	Atletic		
Star block	8	0	0%
The baton	8	0	0 %
Javelin/ turbo	16	3	18,75 %
Disc	16	0	0 %
Shot put	16	2	12,5 %
	Amount		6,25%
	Games		
Football	11	2	18,18 %
Volleyball	11	2	18,18 %
Basketball	11	1	9,09 %
Handball	11	0	0 %
	Amount		11,36 %
	Gymnastic		
Hop rattan	16	1	6,25 %
Mattress	6	3	50 %
Crate jump	2	0	0 %
Jump rope	16	0	0 %
Titian Rays	1	0	0 %
Single cross	1	0	0 %
Speaker	1	1	100 %
Aerobics Cassettes	2	2	100 %
	Amount		32,03 %
	Martial Arts		
Men's martial arts clothing	2	0	0 %
Body protector	1	0	0 %
	Amount		0 %
	Total		49,64%

Based on the **Table 3** collected through observation sheets (Table 3), it can be understood that the availability of physical education facilities at State Elementary School 1 Karang Endah varies significantly, with differing quantities for each type of equipment. Below are the quantities of facilities available at State Elementary School 1 Karang Endah along with their respective percentages:

- Javelins/Turbo: 3 units (18.75%)
- Shot Puts: 2 units (12.5%)
- Footballs: 2 units (18.18%)
- Volleyballs: 2 units (18.18%)
- Basketballs: 1 unit (9.09%)
- Bamboo Hoops: 1 unit (6.25%)
- Mats: 3 units (50%)
- Loudspeakers: 1 unit (100%)
- Aerobics Tapes: 2 units (100%)

Other facilities such as starting blocks, relay batons, discus, handballs, single bars, balance beams, jumping boxes, jump ropes, martial arts uniforms, and body protectors are not available, with a percentage of 0%.

Condition of Physical Education Facilities or Equipment at State Elementary School 1 Karang Endah

After research was carried out and data on the condition of physical education facilities/ equipment at State Elementary School 1 Karang Endah was processed, it was found that the number of each facility was different. The results of data processing regarding the condition of physical education facilities/infrastructure can be seen in the next **Table 4.**

Table 4. Condition of Physical Education Facilities

Facility	Condition of Facilities		%
	Good	Damaged	
	Atletic		
Star block	0	0	0 %
The baton	0	0	0 %

Javelin/	16	3	18,75 %
turbo	1	2	49,6 %
Disc	0	0	0 %
Shot put	2		12,5 %
Amount			12,42%
Games			
Football	2		18,18 %
Volleyball	2		18,18 %
Basketball	1		9,09 %
Handball	0	0	0 %
Amount			11,36 %
Gymnastic			
Hop rattan	1		6,25%
Mattress	3		50 %
Crate jump	0	0	0 %
Jump rope	0	0	0 %
Titian Rays	0	0	0 %
Single cross	0	0	0 %
Speaker	1		100 %
Aerobics Cassettes	2		100 %
Amount			32,03 %
Martial Arts			
Men's martial arts clothing	0	0	0 %
Body protector	0	0	0 %
Amount			49,64%
Total			55,81%

Based on the **Table 4** above, the condition of sports facilities at State Elementary School 1 Karang Endah can be summarized as follows:

-Javelin/Turbo: 49.6% falls under the "moderate" category.
-Shot Put: 12.5% falls under the "very poor" category.
-Volleyballs: 18.18% falls under the "very poor" category.
-Soccer Balls: 18.18% falls under the "very poor" category.
-Basketballs: 9.09% falls under the "very poor" category.
-Rattan Hoops: 6.25% falls under the "very poor" category.
-Mats: 50% falls under the "moderate" category.
-Speakers: 100% fall under the "excellent" category.
-Aerobics Cassettes: 100% fall under the "excellent" category.

The Availability of Physical Education Infrastructure at State Elementary School 1 Karang Endah

After completing the data collection process through observation at State Elementary School 1 Karang Endah, various findings were obtained regarding the availability of facilities and infrastructure. Details on the quantity of physical education, sports, and health infrastructure can be observed in the following **Tabel 5**.

Tabel 5. Availability of Physical Education Infrastructure

Facility	Standard Quantity	Quantity	%
	Atletic		
Javelin throwing field	2	0	0 %
Long jump field	1	0	50 %
High jump field	2	0	0 %
Amount			16,6%
	Games		
Basketball court	1	0	0 %
Volleyball court	1		100 %
Football field	1		100 %
Handball court	1	0	0 %
Storage warehouse	1		100 %
Amount			60 %
Total			76,6%

Based on the observations through the observation sheet in **Tabel 5**, it can be concluded that the availability of infrastructure at State Elementary School 1 Karang Endah is quite complete, as the school already has sufficiently large fields, such as fields for soccer, volleyball, badminton, and long jump, as well as a storage room. The data obtained from the observation shows the following:

-Javelin Throw Field: 0% in the "very poor" category.
-Long Jump Field: 50% in the "moderate" category.
-High Jump Field: 0% in the "very poor" category.
-Basketball Court: 0% in the "very poor" category.
-Volleyball Court: 100% in the "excellent" category.
-Soccer Field: 100% in the "excellent" category.
-Handball Court: 0% in the "very poor" category.
-Storage Room: 100% in the "excellent" category.

The overall condition of the infrastructure in athletics is 16.6% in the "very poor" category, while in the games sports category, 76.6% falls under the "excellent" category.

The availability of facilities and infrastructure plays a crucial role in supporting effective learning. In physical education, the lack of adequate facilities can reduce student motivation to actively participate in physical activities, which can hinder the achievement of learning objectives (Mulyasa, 2013). Different from other subjects, physical education prioritizes teaching methods that involve the practice of physical activity and movement as a way to achieve learning goals (Mustafa, 2022). The standards for the facilities and infrastructure that should be available in schools include: 8 star blocks, 8 relay batons, 16 javelins or turbos, 16 discs, 16 shot puts, 2 long jump fields, 2 javelin throwing fields, 11 volleyballs, 11 soccer balls, 11 handballs, 11 basketballs, 1 volleyball court, 1 basketball court, 1 handball court, 1 soccer field, 6 mats, 16 rattan hoops, 16 jump ropes, 2 vaulting boxes, 1 balance beam, 1 pommel horse, 1 speaker, 2 aerobics cassettes, 2 martial arts uniforms, and 1 body protector.

From the survey conducted using the observation sheet at State Elementary School 1 Karang Endah, data regarding the availability and condition of facilities and infrastructure was obtained, as follows: the availability of facilities in the athletic category is 6.25% in the "very poor" category, the games sports category is 11.36% in the "very poor" category, gymnastics is 32.03% in the "poor" category, and martial arts is 0% in the "very poor" category. The condition of facilities in the athletic category is 12.42% in the "very poor" category, the games sports category is 11.36% in the "very poor" category, and gymnastics is 32.03% in the "poor" category.

Facilities and infrastructure are important supporting factors for the smooth and optimal implementation of physical education. Fundamentally, physical education subjects consist of a series of learning processes, most of which involve physical activity and direct practice. The aim is to encourage comprehensive changes in the physical, mental and emotional quality of students (Iyakrus, 2019). However, not all schools have sufficient facilities and infrastructure. When the facilities and infrastructure are inadequate, it will affect student learning outcomes. Based on the field observations, the availability of facilities and infrastructure in the athletics category is as follows:

- Star blocks: 0%
- Relay batons: 0%
- Discs: 0%

In the games sports category, such as:

- Handball: 0%

In the gymnastics category, the availability of facilities includes:

- Vaulting box: 0%
- Jump ropes: 0%
- Balance beam: 0%
- Pommel horse: 0%

It can be concluded from the above data that the facilities at this school fall into the "very poor" category.

Inadequate physical education facilities reduce the effectiveness of the physical education program. Poor facilities have been shown to cause low participation in physical activities, which leads to lower physical fitness and health levels among students. Adequate facilities are crucial in creating a learning environment that supports the development of students' motor skills and physical fitness (Rikard & Banville, 2016). Insufficient physical education facilities can hinder teachers' efforts in delivering quality programs. With limited space and inadequate equipment, teachers face difficulties in creating an environment that fosters active learning and supports the development of students' motor skills and coordination (Dyson, 2018).

Effective physical education requires access to adequate facilities and infrastructure to support student participation. A lack of facilities results in limitations in the physical education program, often relying on theory without optimal practical engagement. This reduces opportunities for students to develop physical fitness and social skills (Hardman, 2018). Thus, from the data, it can be concluded that the physical education facilities at State Elementary School 1 Karang Endah are still in the "very poor" category, which somewhat hampers the learning process. However, there has been significant improvement in the following years. For example, the school now has a dedicated physical education teacher, whereas previously, there was none, and the physical education classes were taught by the classroom teacher, with less structured physical activity. However, the school now has a competent physical education teacher who is also a floor gymnastics athlete, which enables them to inspire students to become athletes. The following year marked the school's first achievement in winning a medal in a floor gymnastics competition. With this, the school has experienced significant changes, as the success of physical education

programs is not only influenced by the availability of facilities and infrastructure but also by the teacher's role in facilitating learning and achieving positive outcomes in the educational process.

Budget limitations and a lack of awareness about maintaining facilities have caused infrastructure to deteriorate and become less effective (Jannah & Aini, 2023). The lack of facilities at the school may also be due to the fact that there are three elementary schools in one village, which affects the number of students. This, in turn, impacts the amount of funds the school receives through the BOS (School Operational Assistance) program, which is used to improve facilities and infrastructure. The school has prioritized improving its building condition before focusing on its facilities and infrastructure.

The school has also submitted a proposal to enhance its facilities and infrastructure. They have made efforts to optimize the use of existing resources. A limitation encountered during this study was the lack of updated references and the inaccurate data storage by the teachers regarding the school's facilities, which required the researcher to conduct a follow-up. However, the strength of this study lies in the accurate and reliable data obtained from the field observations, which can serve as a benchmark for the school to improve and complete its facilities and infrastructure.

CONCLUSION

Based on the data analysis from the survey research on the physical education facilities and infrastructure at State Elementary School 1 Karang Endah, it can be concluded that the facilities and infrastructure at the school are categorized as being in poor condition. The average evaluation of the facilities in the athletics category shows 6.25% in the "very poor" category, in the games sports category 11.36% in the "very poor" category, gymnastics 32.03% in the "poor" category, and martial arts 0% in the "very poor" category. The infrastructure in the athletics category is 16.6% in the "very poor" category, while the games sports infrastructure is 76.6% in the "excellent" category. Meanwhile, the condition of the facilities in the athletics category is 12.42% in the "very poor" category, in the games sports category 11.36% in the "very poor" category, gymnastics 32.03% in the "poor" category, and martial arts 0% in the "very poor" category.

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