

## **Survey of Sports Facilities and Infrastructure at SMA Muara Telang**

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**Abstract:** This study aimed to evaluate the potential for standardizing physical education facilities and infrastructure in high schools within Muara Telang District, Banyuasin Regency. Using a quantitative descriptive method, the research was carried out in both public and private high schools throughout the district. The focus was on assessing facilities and infrastructure for large ball games, minor ball sports, and athletics. The objective was to determine the feasibility of standardizing these physical education resources. The results indicated that at SMA Negeri 1 Muara Telang, 50% of the sports facilities and infrastructure met the standard criteria, while the other 50% were classified as "lacking". At Bina Muda High School, 40% of the facilities met the standard.

**Keywords:** Infrastructure, Sports Facility, Survey

### **A. Introduction**

This evaluation examines the sports facilities and infrastructure of senior high schools in Muara Telang District, aiming to assess their adequacy and quality for effective physical education programs. The study seeks to identify areas that need improvement and provide recommendations to enhance the overall quality of physical education in the district by analyzing the current state of sports infrastructure.

From the articles "The Impact of Sports Participation on Mental Health and Social Outcomes in Adults: A Systematic Review," "Mental Health Through Sport," "The Role of Sports in the Development of an Individual and the Role of Psychology in Sports," and "The Holistic Development of Talented Sports Persons Through Dual-Career," it can be concluded that sports play a significant role in the holistic development of individuals, addressing physical, mental, and social dimensions. Sports activities are designed to promote both physical and spiritual well-being. According to Sari (2017), exercise generally improves and maintains physical fitness and mental health. Sports contribute to physical and spiritual development through games, competitions, and activities that lead to victories and achievements. Another

viewpoint asserts that exercise is a physical activity that positively impacts individuals and their health. Based on these perspectives, sports can be seen as a process aimed at promoting physical and mental health while maintaining and achieving physical and spiritual well-being for both individuals and society. This should be a model for integrating sports into school and college curricula, as they are associated with educational progress, academic success, good health, safety, and achievement (Braddock, et al., 2007; Dawkins, et al., 2006; Leeds, et al., 2007). Sports should be introduced and encouraged because they are directly linked to health, significantly enhance concentration, and help develop positive behavior (Coalter, 2007).

Physical Education, Sports, and Health are learning processes that promote the development of motor and psychomotor skills in individuals. These subjects also improve fitness and contribute to character formation, mental, emotional, and spiritual well-being. As part of the school curriculum from elementary to high school, they aim to foster a healthy lifestyle and equip students with the skills necessary to achieve the goals of the national education system.

Physical education is an educational process intentionally conducted through various physical activities to achieve balanced personality development, physical growth, health, fitness, abilities, skills, intelligence, and character development, all of which contribute to shaping individuals with the qualities of Pancasila. Rosdiani (2015) adds that physical education provides learning experiences through physical activities, games, and sports, systematically organized to stimulate physical growth, motor skills, cognitive development, and emotional, social, and moral growth in students.

Physical education is a vital component of overall education, focusing on the balanced development of physical, mental, social, and emotional well-being (Lynch, 2019). As per various viewpoints, physical education, sports, and health are educational processes that can be implemented both formally and informally to support individual growth and mindset development.

The Great Dictionary of Indonesian (2001) defines “means” as anything used as a tool to achieve goals. Handayani (2015) highlights that physical education facilities are essential tools that significantly enhance the teaching and learning process. Facilities and equipment are crucial aspects of sports education. According to Wirjasantoso, sports equipment, such as balls, rackets, nets, and casting tools, is often used temporarily and can wear out over time if not properly maintained. Therefore, durable equipment must be well-maintained to ensure its longevity in physical education activities.

Ikbal (2013) suggests that facilities can be utilized as tools to achieve specific objectives. Soepartono (2000) defines sports facilities as resources that can be used and optimized for implementing sports or physical education activities. Irwandi (2015) further explains that sports facilities are essential resources consisting of various equipment and supplies used in sports activities. Sports infrastructure, including fields, buildings, and related equipment, plays a critical role in supporting physical education. Soepartono (2000) emphasizes that sports infrastructure is typically permanent and difficult to move, underscoring its importance in sustaining physical education programs. Adequate sports facilities and infrastructure are essential for the successful implementation of sports programs, as they motivate students and athletes to perform at their best.

Sports facilities and infrastructure are fundamental to every sports activity. They provide the foundation for developing a healthy and fit generation. As such, it is the responsibility of both central and regional governments to ensure the availability of proper sports facilities and infrastructure for all sports enthusiasts. Kirstin & Christoph (2013) describe sports facilities and infrastructure as the physical spaces and resources that support athletic activities and events, ranging from outdoor fields to indoor gyms. Bucher C. (1979) asserts that organizations must provide environments that facilitate achieving their sports program goals, emphasizing the importance of adequate facilities in schools and universities.

Physical education includes various facilities such as playgrounds, equipment, swimming pools, classrooms, and libraries. The development and maintenance of sports facilities and infrastructure are critical for promoting physical activity, hosting competitions, and fostering community engagement among athletes and spectators. This paper examines the importance of sports facilities and infrastructure in supporting healthy lifestyles and enhancing sports experiences. Based on expert opinions, it can be concluded that for Physical Education, Sports, and Health (PJOK) programs in schools and beyond to be effective, they must be supported by comprehensive and adequate facilities and infrastructure.

Sports facilities are categorized into equipment (e.g., bows, bars, beams) and infrastructure (e.g., fields, markers, nets). Properly equipped facilities motivate athletes to stay active and achieve their goals. Different types of sports facilities, such as stadiums, gyms, and swimming pools, are vital for student training, competition, and community physical activities. The design and maintenance of these facilities are crucial for promoting sports participation and overall well-being. Research on the evaluation of football coaching programs in East Nusa Tenggara has demonstrated that adequate facilities and infrastructure significantly boost athletes' motivation and improve their performance.

In response to the above, researchers conducted a survey on physical education facilities and infrastructure at senior high schools (SMA) in the Muara Telang District, Banyuasin Regency. The findings revealed that many schools still do not meet the required standards for facilities and infrastructure. For example, some schools lack adequate ball fields or the necessary equipment for sports activities. Even when equipment is available, it is often underutilized or not functioning correctly, limiting students' ability to benefit from these resources.

The study's primary goal was to evaluate the standardization of physical education facilities and infrastructure in senior high schools (SMAs) in Muara Telang District. By identifying gaps or deficiencies, the research aimed to clarify the feasibility standards for these facilities, which are essential for delivering quality physical education programs. This evaluation is crucial for influencing the overall quality of education and the physical development of students.

The research focused on various aspects of physical education facilities, including the availability, condition, and accessibility of sports fields, gymnasiums, and equipment. The study also considered the infrastructure's safety, suitability, and compliance with national or regional standards. The insights gained from this research can guide schools and policymakers in improving the physical education environment, particularly in rural or underdeveloped areas.

In conclusion, the study addressed the gap between established standards and the actual conditions of physical education facilities and infrastructure in Muara Telang District. By providing a comprehensive analysis, the research highlighted areas needing improvement and offered practical recommendations for upgrading facilities to support students' physical health and sports participation. Enhancing these facilities will enrich students' educational experiences, fostering a more conducive environment for physical activity, which is essential for a well-rounded education. By addressing the infrastructure needs identified in this study, schools in Muara Telang District can work toward providing comprehensive physical education programs that support students' physical and mental development.

## **B. Methods**

The research method used in this study is a quantitative descriptive approach. Quantitative research systematically collects and analyzes numerical data to identify patterns, trends, and relationships (Mohajan, 2020; Östlund et al., 2011). This method is widely employed in various disciplines, including the natural and social sciences, as it allows researchers to quantify variables and assess their impact on specific outcomes.

Quantitative descriptive research aims to provide a detailed account of the

characteristics of a population or phenomenon through numerical data analysis (Kim et al., 2017; Vaismoradi et al., 2013). The goal is to accurately represent the variables under study, often using statistical techniques to summarize and interpret the data. In this study, the quantitative descriptive method was applied to evaluate the standardization of physical education facilities and infrastructure in high schools within the Muara Telang District. By collecting numerical data on the availability and condition of sports facilities, the researchers could quantify the extent to which these facilities met established standards.

One of the key strengths of quantitative descriptive research is its ability to produce precise and objective data, which can be used to draw meaningful conclusions. Statistical analysis allows researchers to identify relationships between variables, calculate averages, and assess the significance of their findings. For example, a study examining the relationship between study habits and academic performance might analyze survey data from a large sample of students to determine the average number of study hours per week and assess whether there is a correlation between study hours and GPA.

In this study, the quantitative descriptive research method enabled the researchers to systematically assess the physical education facilities and infrastructure at selected schools. By using observation and documentation techniques to gather data, the researchers quantified the adequacy of these facilities and determined whether they met the standards required for effective physical education programs. The quantitative analysis provided a clear and objective basis for evaluating the current state of sports facilities in the district and identifying areas where improvements were needed. This method allowed the researchers to draw meaningful conclusions about the quality of physical education infrastructure in Muara Telang District and offer practical recommendations for enhancing the overall educational experience for students in the region.

We utilized statistical methods, such as regression analysis, to explore the relationships between various variables related to physical education facilities and infrastructure at high schools in the Muara Telang District. This approach enabled them to quantify and analyze the data collected, leading to meaningful conclusions about the state of these facilities. The goal was to identify patterns and correlations that could reveal the adequacy and effectiveness of the infrastructure for physical education, sports, and health programs in the schools under study.

The research was conducted in both public and private high schools in Muara Telang District, focusing on SMA Negeri 1 Muara Telang and SMA Bina Muda. These schools were selected because they represent different types of educational institutions within the district. The study aimed to assess and compare the physical

education facilities and infrastructure of these schools to determine how well they supported sports such as large ball games, small ball games, and athletics. Comparing public and private schools also provided insights into potential disparities in the quality and availability of infrastructure.

The study examined facilities and infrastructure for sports such as football, volleyball, basketball, badminton, table tennis, long jump, shot put, and javelin throw. These sports were chosen because they are commonly included in high school physical education programs and require specific infrastructure and equipment. The researchers assessed the availability, condition, and accessibility of the facilities to determine whether they met the required standards for adequate physical education.

Data were collected through observation and documentation, with researchers directly observing the facilities and recording their findings. They focused on the condition and adequacy of sports fields, courts, equipment used for large and small ball games, and athletics facilities. This approach allowed the researchers to gather detailed and accurate information about the physical state of the infrastructure. Documentation was also used to review existing records or reports related to the maintenance and use of these facilities.

The data analysis involved calculating percentages to determine the proportion of facilities that met the required standards. This method allowed the researchers to quantify the adequacy of the infrastructure clearly and understandably. The percentage calculations provided a straightforward way to present the findings, showing how well the facilities and infrastructure at SMA Negeri 1 Muara Telang and SMA Bina Muda supported physical education programs. This analysis was crucial for drawing conclusions and making recommendations to improve the schools' physical education infrastructure.

### **C. Results and Discussion**

Based on the research conducted at SMA Negeri 1 Muara Telang, the condition of the sports facilities and infrastructure that support the implementation of the PJOK (Physical Education, Sports, and Health) learning process at the school is detailed in the observation sheet as follows:

**Table 1. Observation Sheet of SMA Negeri 1 Muara Telang**

Sports	Indicator	Standard	
		Yes	No
Football	a. Number and type of balls		√
	b. Field Size		√
Volleyball	a. Number and type of balls	√	
	b. Field Size		√
Basketball	a. Number and type of balls	√	
	b. Field Size	√	
Badminton	a. Number and type of balls		√
	b. Field Size	√	
	c. Racquet		√
Table tennis	a. Tennis Table	√	
	b. Net	√	
	c. Tennis Balls	√	
	d. Bet/racket		√
Long jump	a. Track length		√
	b. container		√
	c. sandi		√
Bullet repellents	a. Bullet Ball	√	
	b. field		√
Javelin Throw	a. Javelin	√	
	b. Javelin Throwing Field	√	
Earning Score (F)		10	10
Maximum Score (N)		20	20
Percentage		50%	50%

From table 1, information is obtained that based on the three types of big ball games, small ball games and athletics are big ball games obtained including a) football is obtained with several balls and types of balls that are not standard, then has a football field but does not meet the standard criteria of a football field; b) Volleyball is obtained by determining the number and type of balls that meet the standard but the eight balls that do not meet the standard; and c) Basketball is stated to have standard completeness due to the number of balls, and the shape of the court is by the standard criteria.

Small ball games are obtained, including a) badminton, which has the number and type of balls and rackets that do not meet the standards but have appropriate and standard courts; b) Table tennis is declared to have table equipment, nets and balls that are by the standard but do not have bets that meet the standard. Athletics obtained include a) long jumps that do not have a track and a sand tub that meets the standard criteria; b) Reject bullets obtained by standard bullet balls but do not have a particular field so that they are declared not to meet the standards; and c) Javelin throwing: There is javelin equipment and a standard field.

The percentage of sports facilities and infrastructure standardization at SMA Negeri

1 Muara Telang is 50% as standard and 50% as non-standard. Based on the assessment criteria, the standardization of sports facilities and infrastructure at SMA Negeri 1 Muara Telang is included in the “Lacking” assessment criteria.

Based on the findings in the research at Bina Muda High School, the condition of sports facilities and infrastructure to support the implementation of the PJOK learning process in schools can be seen in the observation sheet as follows:

**Table 2. Observation Sheet of Bina Muda High School**

Sports	Indicator	Standard	
		Yes	No
Football	a. Number and type of balls		√
	b. Field Size		√
Volleyball	a. Number and type of balls		√
	b. Field Size	√	
Basketball	a. Number and type of balls		√
	b. Field Size		√
Badminton	a. Number and type of balls	√	
	b. Field Size	√	
	c. Racquet		√
Table tennis	a. Tennis Table		√
	b. Net	√	
	c. Tennis Balls	√	
	d. Bet/racket	√	
Long jump	a. Track length		√
	b. container		√
	c. sand		√
Bullet repellents	a. Bullet Ball	√	
	b. field		√
Javelin Throw	a. Javelin	√	
	b. Javelin Throwing Field		√
Earning Score (F)		8	12
Maximum Score (N)		20	20
Percentage		40%	60%

From the table 2, information was obtained that based on the three types of sports of the big ball game, the small ball game and athletics are the big ball games obtained including a) football is obtained with a non-standard number of balls and types of balls and also does not have a football field; b) Volleyball is obtained with a non-standard number and type of ball, followed by the standard court; and c) basketball is stated that there are balls and types of balls that are not standard and have a non-standard court size.

Small ball games were obtained, including a) badminton to have a standard court; the number and type of balls were also standard, but the rackets owned by students did not meet the criteria, so they were declared non-standard; b) Table tennis is stated to have a non-standard table but has a standard ball, net, and bet. Athletics

were obtained that a) the long jump did not have a track and came with a tub and sand that met the standard criteria; b) Bullet repellent is a bullet ball that meets the standard but does not have a field that meets the standard; and c) Javelin throwing is obtained with a standard javelin, but the field does not meet the standard.

The assessment of sports facilities and infrastructure at Bina Muda High School revealed that only 40% of the facilities met the established standards, while a significant 60% fell short of these criteria. This disparity indicates that a majority of the sports facilities and infrastructure at the school need to adhere to the standards required for supporting an effective physical education program. According to the assessment criteria used in the study, the school's facilities are classified under the "Lacking" category. This classification suggests that the existing infrastructure needs to be improved to meet the needs of students and provide the appropriate environment for conducting a comprehensive physical education program. The findings highlight a critical need for improvements, as the current state of facilities could hinder students' physical development and their overall participation in sports and physical activities (Kohl, & Cook, 2013; Siedentop, & Van der Mars, 2022). Addressing these deficiencies would require substantial investment in upgrading and maintaining sports facilities to ensure they meet the required standards and contribute positively to the student's physical education experience.

#### **D. Conclusions**

The research and data analysis conducted in the result and discussion led to the conclusion that the standardization of sports facilities and infrastructure at SMA Negeri 1 Muara Telang is evenly split, with 50% of the facilities meeting the required standards and the remaining 50% falling short. This balance between standard and non-standard facilities places the school within the "lacking" category according to the assessment criteria used in the study. This classification suggests that while half of the sports facilities are adequate for supporting physical education programs, the other half requires significant improvements to meet the necessary standards. Similarly, the analysis of sports facilities and infrastructure at Bina Muda High School revealed that only 40% of the facilities meet the required standards. In comparison, 60% do not, resulting in the school being categorized as "lacking." This indicates a more pronounced deficiency in the quality of sports infrastructure at Bina Muda High School compared to SMA Negeri 1 Muara Telang.

The findings highlight a concerning trend in both schools, where a substantial portion of the sports facilities need to be better, potentially compromising the effectiveness of physical education programs. This underscores the need for targeted efforts to upgrade and standardize the sports infrastructure in these schools to ensure they can provide students with the necessary resources for a well-rounded

physical education experience. The research and data analysis revealed that both SMA Negeri 1 Muara Telang and Bina Muda High School are classified as “lacking” in the standardization of their sports facilities and infrastructure. At SMA Negeri 1 Muara Telang, the facilities are evenly divided between those that meet the required standards and those that do not, indicating a need for significant improvements to ensure all students have access to adequate resources for physical education. Bina Muda High School faces an even more substantial challenge, with only 40% of its facilities meeting standards and 60% falling short, underscoring a more critical need for infrastructure upgrades. These findings highlight a broader issue within these schools, where inadequate sports facilities could undermine the effectiveness of physical education programs, potentially impacting students’ physical development and overall educational experience. Therefore, it is essential to prioritize efforts to enhance and standardize the sports infrastructure in these schools, ensuring that all students receive the benefits of a comprehensive and well-supported physical education curriculum.

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