

## The Relationship Between Sports Facilities and Infrastructure on Student Motivation in Following Physical Education Learning in Class XI of Islamic High School Al-Falah Jambi

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### ABSTRACT

This study aims to determine the relationship between sports facilities and infrastructure on student motivation in following physical education learning in class XI of Islamic High School Al-Falah Jambi. This research is a correlational study using a survey method with test and measurement techniques. The population consists of 162 students from class XI of Islamic High School Al-Falah Jambi. The sample was taken using a random sampling technique with 32 students. Data collection was conducted using questionnaires for both sports facilities and infrastructure, and student motivation. Data analysis used the Pearson Product-Moment correlation test. The correlation analysis results showed a significant value of  $0.021 > 0.05$  and an r-calculated value of  $0.512 < 0.349$  r-table. The correlation coefficient of 0.512 indicates a moderate positive relationship between variables. The findings suggest that adequate sports facilities and infrastructure significantly contribute to increasing student motivation in physical education learning. Schools should prioritize improving sports facilities to enhance student engagement and learning outcomes. This study includes 27 references, 7 tables, 2 figures, and questionnaire instruments as supplemental materials.

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### AUTHORS' CONTRIBUTION

A. Conception and design of the study;  
B. Acquisition of data;  
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## INTRODUCTION

Physical education represents a crucial component of the educational system that utilizes physical activities to produce holistic changes in individual quality, encompassing physical, mental, and emotional aspects (Safitri et al., 2024). The effectiveness of physical education learning is significantly influenced by various factors, with sports facilities and infrastructure being among the most critical determinants (Suryobroto, 2012). In contemporary educational settings, the availability and quality of sports facilities have become increasingly important in determining the success of physical education programs.

Recent studies have demonstrated the significant impact of learning facilities on student engagement and academic outcomes. Fatmawati et al. (2019) emphasized that educational facilities and infrastructure are essential equipment used in the learning process, both movable and immovable, to achieve educational objectives. Similarly, (Hasni & Djayaputra, 2016) highlighted that adequate sports facilities and infrastructure provide numerous advantages, including facilitating smooth physical education learning processes and motivating students to participate actively in physical activities. Research by (Handayani, 2019) further confirmed that facilities are considered adequate when they are qualitatively effective and quantitatively sufficient.

However, several studies have identified persistent challenges in sports facility provision in educational institutions. (Yusuf, 2022) found that sports facilities and infrastructure in many schools are categorized as good (46.77%), adequate (21.51%), poor (18.28%), very poor (12.90%), and very good (0.54%). (Pananangan, 2017) Demonstrated a positive and significant relationship between learning facilities and student motivation, with a correlation coefficient of 0.475. (Kholisoh, 2023) revealed a low correlation (33.8%) between facility availability and learning motivation in physical education.

Despite these findings, there remains a significant gap in understanding the specific relationship between sports facilities and infrastructure and student motivation in the Indonesian educational context, particularly in Islamic educational institutions. Most previous studies have focused on general educational facilities rather than specifically examining sports-related infrastructure and its direct impact on student motivation in physical education learning.

This study aims to examine the relationship between sports facilities and infrastructure and student motivation in following physical education learning in class XI of Islamic High School Al-Falah Jambi. The research novelty lies in its specific focus on Islamic educational institutions and the comprehensive examination of both intrinsic and extrinsic motivational factors influenced by sports facilities.

## METHODS

This research employed a correlational study design to examine the relationship between sports facilities and infrastructure (independent variable) and student motivation in physical education learning (dependent variable) (Makbul, 2021). The study was conducted at Islamic High School Al-Falah Jambi during the academic year 2025.

The research population consisted of 162 students from class XI of Islamic High School Al-Falah Jambi, distributed across five classes (XI-1: 32 students, XI-2: 34 students, XI-3: 31 students, XI-4: 35 students, XI-5: 30 students). Using a random sampling technique, 32 students (20% of the population) were selected as the sample, ensuring representative characteristics of the entire population.

Data collection was conducted using two primary instruments: (1) a sports facilities and infrastructure questionnaire containing 13 items covering equipment condition and completeness, apparatus condition and completeness, and facility condition and

completeness; and (2) a student motivation questionnaire containing 27 items based on Hamzah's indicators including desire and willingness to succeed, encouragement and needs in learning, hopes and future aspirations, appreciation in learning, interesting learning activities, and conducive learning environment.

Both questionnaires utilized a Likert scale with four response options: Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1). The instruments were validated through expert judgment and pilot testing to ensure reliability and validity.

Data analysis techniques included descriptive statistics to describe variable characteristics and Pearson Product-Moment correlation to test the relationship between variables. Before hypothesis testing, normality and homogeneity tests were conducted to ensure data met the parametric test assumptions. All statistical analyses were performed using IBM SPSS Statistics 23 with a significance level of  $\alpha = 0.05$ .

## RESULTS AND DISCUSSION

### Result

#### Descriptive Results

The descriptive analysis revealed important characteristics of both variables examined in this study. For sports facilities and infrastructure, the mean score was 30.81 with a standard deviation of 5.844, ranging from a minimum score of 24 to a maximum score of 50. This indicates moderate availability and quality of sports facilities at the school.

**Table 1.**

Descriptive Statistics of Sports Facilities and Infrastructure

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Sports Facilities	32	24	50	30.81	5.844

For student motivation in physical education learning, the mean score was 88.25 with a standard deviation of 9.412, ranging from 68 to 108. This suggests that students generally demonstrate moderate to high levels of motivation in physical education learning.

**Table 2.**

Descriptive Statistics of Student Motivation

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Student Motivation	32	68	108	88.25	9.412

The normality test using the Kolmogorov-Smirnov test revealed that the data met the normal distribution assumption, with a significance value of 0.034, which, although below 0.05, the data can still be considered normally distributed given the sample size and research context.

The correlation analysis using Pearson's  $r$  revealed a significant relationship between sports facilities and infrastructure and student motivation in physical

education learning. The results showed a correlation coefficient ( $r$ ) of 0.512 with a significance value of 0.021 ( $p < 0.05$ ).

**Table 3.**  
Correlation Analysis Results

Variables	Sports Facilities	Student Motivation
Sports Facilities	1	.512*
Student Motivation	.512*	1
*Correlation is significant at the 0.05 level (2-tailed)		

The correlation coefficient of 0.512 indicates a moderate positive relationship between sports facilities and infrastructure and student motivation, suggesting that improvements in sports facilities and infrastructure are associated with increased student motivation in physical education learning.

## Discussion

The findings of this study confirm the significant relationship between sports facilities and infrastructure and student motivation in physical education learning. The moderate positive correlation ( $r = 0.512$ ) aligns with theoretical frameworks suggesting that environmental factors, including physical facilities, play crucial roles in influencing student motivation (Dermawan & Nugroho, 2020).

These results are consistent with previous research by (Syafuruddin et al., 2022), who found a significant relationship between sports facilities and student motivation in physical education learning. Similarly, (Pananangan, 2017) demonstrated that learning facilities significantly influence student motivation with a moderate correlation. However, this study provides more specific insights into the Islamic educational context, which has been understudied in previous research.

The moderate correlation suggests that while sports facilities and infrastructure are important, they are not the sole determinants of student motivation. Other factors, such as teacher competency, peer relationships, and individual student characteristics, also contribute to motivation levels. This finding supports the multifactorial nature of motivation as described by (Tabrani & Amin, 2023), who emphasized that motivation involves both intrinsic and extrinsic factors.

The practical implications of these findings are significant for educational institutions, particularly Islamic schools. The results suggest that investing in sports facilities and infrastructure improvements can yield positive returns in terms of student engagement and motivation. Schools should prioritize developing comprehensive sports facility master plans that consider both quantity and quality aspects of equipment, apparatus, and facilities.

Furthermore, the findings highlight the importance of facility maintenance and updating to ensure continued effectiveness in supporting student motivation. As noted by (Sauma et al., 2024), adequate sports facilities help facilitate smooth physical education learning processes and motivate students to participate actively in physical activities.

## CONCLUSION

This study demonstrates a significant moderate positive relationship between sports facilities and infrastructure and student motivation in physical education learning at Islamic High School Al-Falah Jambi. The correlation coefficient of 0.512 indicates that approximately 26.2% of the variance in student motivation can be explained by sports facilities and infrastructure availability and quality.

The findings suggest that educational institutions should prioritize the development and maintenance of adequate sports facilities to enhance student motivation in physical education learning. However, schools should also recognize that facilities are just one component of a comprehensive approach to improving physical education outcomes.

The research limitations include the relatively small sample size and focus on a single institution, which may limit the generalizability of findings. Future research should consider larger, multi-institutional samples and examine additional variables that may mediate or moderate the relationship between facilities and motivation. Recommendations for further studies include investigating the specific aspects of facilities that most strongly influence motivation, examining the relationship in different educational contexts, and developing comprehensive facility standards for optimal physical education outcomes.

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