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Review of Physical Capacity in Sports Education Students STKIP PGRI Bangkalan

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ABSTRACT

This study aims to review the physical capacity of 52 students of the Sports Education Study Program of STKIP PGRI Bangkalan, class of 2024. The aspects studied include endurance (VO_2Max), muscle strength (push-ups and sit-ups), speed (30-meter run), and flexibility (sit and reach). Results showed that the majority of students had good to excellent endurance (69%), upper and middle body muscle strength in the good to excellent category (77% in push-ups and 79% in sit-ups), and high flexibility (85% in the good or excellent category). However, speed was the most variable aspect, with 13% of students in the deficient category. In general, students' physical capacity was in the good category, reflecting their readiness to participate in academic activities and sports practices. The results of this study can be the basis for evaluating and preparing a more targeted student physical development program, especially to improve physical components that are still less than optimal.

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INTRODUCTION

Students who take the Sports Education study program are expected to have good physical capacity as a foundation in the learning process, field practice, and the formation of competencies as prospective sports educators or trainers. The sports education study program always involves its students or athletes in various competitions, both as participants and as judges (Rumpoko, Jayanti, Febrianti, Hakim, Sunjoyo, & Sistiasih, 2022). As part of physical education, sports play an important role in creating quality human resources (Setiyawan, 2017). Adequate physical capacity also reflects students' readiness to face future academic and professional demands, which often require physical endurance, mental resilience, and discipline in maintaining fitness. In this context, physical capacity is not simply a measure of strength or speed, but rather a reflection of the balance between physical ability, health, and positive life

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attitudes. Therefore, the development of physical capacity cannot be separated from the main objective of Sports Education, which is to form individuals who are physically and mentally healthy, and able to transform sports values in their daily lives and professions. Someone who has good physical fitness will not easily experience fatigue while undergoing daily physical activities (Hendrawan & Raya, 2021).

In the context of sports education, physical capacity is an important component that every student must have, because it acts as a basis for mastering motor skills, implementing sports practices, and achieving performance in academic activities based on physical activity. According to Bompa (1994), physical capacity consists of several main components, namely endurance, strength, speed, agility, and flexibility. Narrowly, physical condition can be interpreted as a state of the body that includes elements of strength, speed, and endurance. While in a broader sense, physical condition also includes elements of flexibility and coordination, in addition to these three main elements (Mardius, Siswara, Erianti, Astuti, & Rosmawati, 2020). Each of these components is interrelated and supports the body's ability to function optimally in various sports situations and other physical activities.

Physical capacity is an important component of sports performance, which includes cardiovascular endurance, muscular strength, flexibility, speed, and motor coordination. In undergoing activities as a student, optimal physical condition is needed so that all activities, both on and off campus, can be followed optimally (Hardiansyah, 2018). Therefore, it is very important for students to have a good level of physical fitness. Students with good physical capacity have an optimal body ability in carrying out daily activities and academic tasks that require direct physical involvement. To improve one's physical aspects, an exercise program is needed that specifically targets changes in physical condition, including elements of speed, strength, endurance and agility (Dharani, Wiriawan, & Mintarto, 2020). Therefore, it is important to objectively assess the physical capacity of students through valid and reliable measurement instruments. By conducting regular physical evaluations, educational institutions can identify students who need additional coaching, as well as develop more effective and targeted physical fitness development strategies. Improving physical fitness can be done with various approaches that involve sports education students, such as through lectures, practicum activities, research, and participation in various sports community activities (Rahmaneli, Arwandi, Mardesia, & Denay, 2024). This review is not only useful for academic purposes but also as a preventive effort in maintaining long-term health and supporting students' professional readiness in the field of physical education and sports.

However, the reality is that not all Sport Education students have equal physical capacity. Factors such as pre-college activity background, personal motivation, training consistency, living habits, and learning environment greatly affect students' physical condition. In a campus environment such as STKIP PGRI Bangkalan, which may have limited sports facilities and infrastructure, the challenges in maintaining and improving physical fitness become more complex. Whether in the world of work, education, or daily activities, excellent body condition can encourage increased productivity, focus, and

individual resilience (Putranto & Efendi, 2024). Therefore, it is important to evaluate the physical condition of students so that educational institutions can find out the extent of student achievement in the aspect of fitness, as well as make adjustments to the curriculum or coaching that is more effective and adaptive.

This study aims to assess the physical capacity of the Sports Education students class of 2023 as a basis for evaluating physical coaching programs and references for developing sports curriculum in universities. Through the measurement of endurance, muscle strength, agility, speed, and flexibility, this study provides an overview of the physical condition of students and identifies gaps between ideal standards and reality. The results are expected to be a reference in assessing students' physical readiness to face academic and professional demands, as well as encouraging awareness of the importance of maintaining fitness during the study period. The findings can also serve as a basis for institutions to improve learning methods, training frequency, and evidence-based physical coaching policies, so that graduates are not only theoretically competent but also physically ready to become professional sports educators or coaches.

METHODS

This study uses a quantitative descriptive method with a survey approach, which aims to provide an objective and systematic description of the physical capacity of the Sports Education students class of 2023 at STKIP PGRI Bangkalan. The type of research used in this study is a survey with a quantitative approach as the main method (Sumroti, Handayani, Himawan, & Purwoto, 2024). The quantitative descriptive method was chosen because the main focus of the study was to quantitatively measure and describe physical conditions based on data collected through a series of standardized physical tests, such as the bleep test, sit-up, push-up, shuttle run, and sit and reach. This approach allows researchers to collect numerical data, which is then analyzed statistically in order to obtain a clear and measurable picture of the physical capacity variables being studied. The population of this study were students of the sports education study program at STKIP PGRI Bangkalan. Meanwhile, the sample used is purposive random sampling by selecting this sample intentionally based on certain criteria that are considered important for research, one of which is the 2023 class of sports education study program students. In this study, the instrument used is a series of physical fitness tests that aim to measure the physical capacity of students quantitatively and objectively such as: Cardiovascular endurance (bleep test), Muscle strength (measured through sit up and push up tests), Speed/agility (measured through shuttle run test), and Flexibility/flexibility (measured through sit and reach test).

This technique is carried out by conducting a series of physical fitness tests that aim to objectively assess the level of physical capacity of students. The implementation of the test is carried out systematically and structured in accordance with the standard procedure for implementing each test. The data analysis technique in this study used quantitative descriptive statistical analysis. This analysis aims to describe the condition of the physical capacity of the Sports Education students class of 2023 based

on the results of each physical test. The first step in the analysis is to process the raw data from each participant on each test component. The value of the test results is then converted into the form of categories (for example: very good, good, sufficient, less, and very less). Therefore, in this study, scores were obtained for each aspect and then processed into final results through the following formula:

$$NA = \frac{score\ obtained}{ideal\ score} x\ 100$$

Source: Sugiyono (2017:39)

These results form an important conclusion of this study. In other words, the final grades of sports education students are used as a standard of evaluation of the competencies that have been taught and to measure their percentage of achievement.

RESULTS AND DISCUSSION

This chapter presents the results of research on the review of physical capacity in students of the STKIP PGRI Bangkalan Sports Education Study Program. The data obtained through the physical capacity measurement process is analyzed and presented in tabular form, as well as descriptive statistics. The presentation of data is focused on providing an overview of the level of physical capacity of students based on several components of physical fitness that have been measured, such as muscle strength, endurance, agility, and speed. This analysis aims to determine the actual condition of students' physical capacity, as well as being the basis for providing recommendations for developing training programs in the campus environment. The following table of research results is as follows:

Table 1.
General Characteristics of the Research Sample (N = 52)

No	Characteristics	Category	Number of Students
1	Classmin type	Males	38
		Female	14
2	Age	18 year	10
		19 year	34
		20 year	8
3	Height	Rata-rata: 170,3 cm	-
4	Weight	Average: 63,7 kg	-
5	Body Mass Index	Normal (18,5–24,9)	45
		Less (<18,5)	4
		More (>24,9)	3
6	Physical Activity	Active Exercise >3x/week	42
		Rarely Exercise (<3x/week)	10

Most of the samples in this study were male students (73.1%), in accordance with the tendency of male participants in the Sports Education study program. The age of the majority of respondents was 19 years old, which is the ideal age for higher education in the early to middle semesters. Students' height and weight were generally in the normal category, with an average height of 170.3 cm and weight of 63.7 kg, thus supporting the feasibility of measuring physical capacity. In addition, most students

have a normal body mass index (BMI), indicating a balance between height and weight. A total of 80.8% of the students were also actively exercising more than three times a week, indicating that their physical condition could be considered representative for the measurement of physical capacity through various physical tests.

Table 2.
Endurance Test Results (VO_2Max - Beep Test)

Category	VO_2Max Range (ml/kg/min)	Number of Students	Persentase (%)
Excellent	> 50	10	19%
Good	43–50	26	50%
Fair	36–42	12	23%
Poor	< 36	4	8%
Total	**–**	**52**	**100%**

The majority of students (69%) were in the good to excellent category. This indicates that most have sufficient cardiorespiratory endurance to support moderate to high-intensity sports activities.

Table 3.
Muscle Strength Test Results (Push-ups)

Category	VO_2Max Range (ml/kg/min)	Number of Students	Persentase (%)
Excellent	> 45	14	27%
Good	36–45	26	50%
Fair	26–35	12	23%
Poor	< 26	0	0%
Total	**–**	**52**	**100%**

Most students (77%) had good to excellent arm and shoulder muscle strength, reflecting upper body functional ability that supports physical activity and sports.

Table 4.
Muscle Strength Test Results (Sit-ups)

Category	VO_2Max Range (ml/kg/min)	Number of Students	Persentase (%)
Excellent	> 50	13	25%
Good	40–50	28	54%
Fair	30–39	11	21%
Poor	< 30	0	0%
Total	**–**	**52**	**100%**

The average student has high abdominal muscle strength. The combination of push-up and sit-up results shows the dominance of upper and middle body muscle strength.

Table 5.
Speed Test Results (30 Meter Run)

Category	VO_2Max Range (ml/kg/min)	Number of Students	Persentase (%)
Excellent	> 50	13	25%
Good	40–50	28	54%
Fair	30–39	11	21%
Poor	< 30	0	0%
Total	**–**	**52**	**100%**

Student speed varied, with 58% in the good to excellent category. However, there are 13% of students with poor speed and who require further coaching.

Table 6.

Flexibility Test Results (Sit and Reach Test)

Category	VO_2Max Range (ml/kg/min)	Number of Students	Persentase (%)
Excellent	> 35	18	35%
Good	30–35	26	50%
Fair	25–29	8	15%
Poor	< 25	0	0%
Total	**–**	**52**	**100%**

The flexibility level of the students was very good, with 85% falling into the good or very good category. Good flexibility supports flexibility of movement and injury prevention.

Discussion

This study aims to review the physical capacity of the Sports Education students class of 2024, consisting of 52 people. Physical capacity is a fundamental aspect in sports education because it is directly related to the physical readiness of individuals to follow the learning process and sports training optimally. The measured components include endurance, muscle strength (push-ups and sit-ups), speed, and flexibility.

Endurance (Beep Test / VO_2Max)

The results showed that most students (69%) had endurance that was classified as good to very good, with an average VO_2Max of 45.2 ml/kg/min. High cardiorespiratory endurance is very important in supporting sports performance, especially for activities that require long-term endurance. This reflects that students already have a habit of regular physical activity.Kekuatan Otot (Push-up dan Sit-up).

Most students have upper body muscle strength (77% good to excellent in push-ups) and abdominal muscle strength (79% good to excellent in sit-ups). This muscle strength is very important in supporting body stability, posture, and physical performance in various sports. Physical condition is an individual's capacity to carry out physical activities that include elements of strength, speed, endurance, flexibility, explosive power, and posture, such as height (Nurhidayah & Graha, 2017). These results indicate that students already have a good foundation of muscle strength as a provision for learning and further sports activities.

Speed (30 Meter Run)

Students' speed ability shows a wider variation than other components. A total of 58% of students are in the good to very good category, while 13% are still in the deficient category. Speed is a very important component in various competitive sports such as football, athletics, and basketball. Therefore, students with poor results need to get a more specific and sustainable speed training program. Fleksibilitas (Sit and Reach Test)

Flexibility (Sit and Reach Test)

Most students showed a high level of flexibility (85% good to very good category). Optimal flexibility plays a role in supporting joint range of motion, reducing the risk of injury, and increasing movement efficiency in sports. These results suggest that

flexibility has become part of the students' physical training habits, most likely through stretching activities before and after training.

Comprehensive Analysis

Overall, the results show that the 2024 Sports Education students have good physical capacity in general. The components of flexibility, muscle strength, and endurance occupy the highest scores, while the speed component is still a challenge for some students. The main purpose of physical capacity is to optimise the performance of body systems in carrying out physical activities effectively and efficiently (Irianto, Sari, Sirenden, & Ainun, 2024). This can be used as a basis by the study program in developing a more targeted curriculum and physical coaching program, especially to improve physical aspects that are not optimal.

Research Implications

1. These results can be an initial evaluation for Sports Education study programs in developing student physical training programs.
2. Data can be used for regular physical fitness monitoring to improve academic performance and sports practice.

Special interventions are needed for aspects of speed and other components that are in the deficient category, both through enrichment programs and strengthening exercises.

CONCLUSION

Based on the results of research on 52 Sports Education students of STKIP PGRI Bangkalan class 2024, it can be concluded that, in general, the physical capacity of students is in the good category. The majority of students show adequate cardiorespiratory endurance, with 69% in the good to very good category, which indicates their readiness to face moderate to high intensity physical activity. The muscle strength component, both in the upper body (push-ups) and abdominal muscles (sit-ups), also showed positive results, with more than 75% of students in the good to excellent category. Likewise, with flexibility, 85% of students showed results that supported flexibility and injury prevention. However, there was still variation in the speed component, with 13% of students in the deficient category. This indicates the need for special attention to increase speed through more focused and structured training. Overall, the physical capacity of Sports Education students already reflects their readiness to participate in the learning process and sports training, although further intervention is needed in aspects that are still not optimal, especially speed.

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