

Analysis Of The Fitness Level Of Indonesian Students (Tksi) In The Upper Classes Of Muhammadiyah University Purwokerto Elementary School In 2025

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Abstract

Background : Physical fitness in elementary school students is an important indicator of their overall health and motor development. Assessing fitness levels helps schools design appropriate learning programs, especially in Physical Education. Therefore, evaluating the fitness profile of upper-grade students at Muhammadiyah University of Purwokerto Elementary School is essential.

Objectives : This study aims to determine the level of Indonesian Physical Fitness (TKSI) among upper-grade students at Muhammadiyah University of Purwokerto Elementary School in 2025.

Methods : This research employed a quantitative descriptive design. The population consisted of all upper-grade students at Muhammadiyah University of Purwokerto Elementary School in 2025, totaling 140 students. The sampling technique used was total sampling, as all students were included as research subjects. Data collection was conducted using the Indonesian Student Fitness Test (Tes Kebugaran Siswa Indonesia/TKSI) Phase C for grades 5 and 6, which includes five components: (1) Child Ball Test, (2) Knock Knock Ball Test, (3) Move the Ball Test, (4) Shuttle Run 8 × 10 m Test, and (5) 600 m Run Test. Data were analyzed using descriptive statistics with percentage categories based on the TKSI assessment norms.

Results : The findings show that the Indonesian Physical Fitness (TKSI) level of upper-grade students at Muhammadiyah University of Purwokerto Elementary School is generally good. A total of 14 students (10%) were categorized as excellent, 84 students (60%) as good, 35 students (25%) as moderate, 7 students (5%) as poor, and 0 students (0%) as very poor.

Conclusion : This study concludes that the overall physical fitness level of students is good. However, 30% of students remain in the moderate to poor categories. These findings imply the need to optimize the PJOK program, enhance the quality and quantity of physical activity outside school hours, and foster collaboration among teachers, parents, and the school in providing facilities and monitoring nutritional intake to improve the fitness levels of all students equitably.

Keywords : Indonesian student fitness level, Elementary School, Upper Grades.

INTRODUCTION

Good education prioritizes a lifelong development process. Education in Indonesia consists of various levels, from kindergarten (TK), elementary school (SD), junior high school (SMP), senior high school (SMA), and university (PT). Education at the kindergarten level still

utilizes play-based learning, not unlike elementary school, which still utilizes play. Elementary school education serves as the foundation for validating and shaping students' personalities in their daily activities.

The goal of physical education is to improve students' physical fitness, (Damsir et al., 2021). With good physical fitness, students are expected to be able to study well and also have a good level of health, which in turn can improve the quality of good human resources, (Faishal Arindra Yahya et al., 2023). Physical fitness is very important for everyone in everyday life, be it the general public, employees, students or pupils, including elementary school students. Physical fitness is a factor that is closely related to the process of growth and development of children, because a person's level of physical fitness determines physical abilities in daily life. The higher the level of physical fitness, the higher the ability of physical work skills for their activities, (Sari, 2020). Physical fitness is one of the supporting factors for a person to carry out various physical activities, carrying out daily tasks effectively and efficiently over a relatively long period of time without experiencing fatigue, (Ramadhani et al., 2022). A good level of physical fitness is expected to improve the quality of students.

For elementary school students, physical fitness is important for maintaining health while studying at school and in the environment as members of society, (Andra & Putri, 2023). Moreover, after graduating from elementary school, physical fitness is useful for continuing school to a higher level that requires a better level of physical fitness. Therefore, physical education needs to be implemented and improved from kindergarten to college. Physical education in elementary school is very important for students. In the independent elementary school curriculum, physical education, sports, and health are taught in grades I to VI with two hours of lessons per week. The minimum amount to achieve good fitness is to do sports activities three times per week. The amount of time allocated in elementary school is still considered insufficient, because students' activities sitting in class for too long continuously sitting in the classroom to follow the lesson will cause fatigue and boredom. Therefore, students need physical activities that can provide refreshment, so that in turn through physical education will help students in maintaining their fitness condition, so that they are always ready in their fitness condition. A person's physical fitness level is indeed greatly influenced by many factors. For students, their physical fitness status is influenced not only by physical education lessons at school but also by activities outside of physical education hours, both consciously and

unconsciously. Conscious activities include exercising at sports clubs or in the village, while unconscious activities include running or walking.

The expectation of the condition of the analysis of the physical fitness level of upper grade students of Muhammadiyah University of Purwokerto Elementary School is good, however due to various obstacles in the field, not all students have a good condition of physical fitness level. When participating in physical education lessons, some students are less enthusiastic and less interested in physical activities. The factor of technological modernization is also a reason for the decline in the level of physical fitness of elementary school students, for example, nowadays students prefer electronic games rather than doing physical activities. Weather factors such as heat are often the reason for students not to participate in sports activities. Other factors that hinder the condition of the analysis of the level of physical fitness of students are the lack of facilities and infrastructure in the process of teaching and learning activities of physical education, while teachers are less creative in modifying learning materials and physical education equipment for students.

Physical Education

Cahyati & Suherman, (2014) state that physical education is a learning process through physical activities designed to improve physical fitness, develop motor skills, knowledge and behaviors for a healthy and active lifestyle, sportsmanship, and emotional intelligence. From this definition of physical education, it can be concluded that physical education is a component of education as a whole that utilizes selected and planned physical activities aimed at developing physical, mental, intellectual, emotional, and social fitness, and fostering a sense of aesthetics in those involved. To understand the objectives of physical education (sports) lessons, it is necessary to understand the objectives of physical education. Expert opinions on physical education in schools can be presented as follows. Suherman, (1996), states that physical education contributes to two distinct objectives: developing and maintaining a level of physical fitness appropriate for health; and teaching why fitness is important and how it is influenced by exercise; and developing appropriate movement skills. This begins with fundamental movement skills, then progresses to specific sports skills, and finally emphasizes lifelong exercise. Physical education is provided at all levels and types of schools for a reason, considering the importance of the principles and values contained, as well as the goals of physical education itself. There are phases of physical education goals, namely: intermediate

goals and specific goals. Intermediate goals target physical development, including the development of orgasm and skills, the development of attitudes and actions related to social development, and mental development. The importance of physical fitness training in schools is to contribute to students in helping harmonious physical growth and development, increasing physical and mental stability, helping develop willpower and personality, and having a positive influence on social adaptation, (Mustafa, 2017).

Physical Fitness

Physical fitness is a person's ability to perform daily work tasks without significant fatigue and still have energy reserves for leisure time and emergencies, (Adi, 2019). Physical fitness is one of the requirements for increasing human productivity, (Kusyandi et al., 2021). Low productivity in education can be identified by high or low academic grades or academic achievement. The quality of bodily organ function indicates the quality of physical fitness, (Sari, 2020). In daily life, each person has different motor tasks. To perform these motor tasks effectively, the quality of bodily organ function is required to meet the demands of the tasks. This level of physical fitness reflects a child's ability to engage in learning activities from morning to noon or from noon to evening.

High levels of physical fitness are necessary for everyone, including elementary school-aged children from kindergarten to high school. With a high level of physical fitness, students are able to carry out daily activities such as studying for longer periods of time compared to students with low levels of physical fitness, (Erlina, 2019). The importance of physical fitness for school-age children includes improving the ability of body organs, social emotional skills, sportsmanship, and competitive spirit. Several studies also state that physical fitness has a positive correlation with academic achievement. Meanwhile, from an educational perspective, efforts to improve physical fitness have goals including developing movement, developing achievement, developing social skills, and shaping the body. Physical fitness related to health includes: (a). Cardiorespiratory endurance is the ability of the heart, lungs, and blood vessels to function optimally when carrying out daily activities, for a long time without experiencing significant fatigue, (Tanzila et al., 2018). Cardiorespiratory endurance is very important to support muscle function, namely by taking in oxygen and distributing it to active muscles. (b). Muscle strength. Physiologically, muscle strength is the ability of the muscle to perform one maximal contraction against resistance/load, (Shanty et al., 2021). Mechanically, muscle

strength is defined as the force that can be produced by a muscle or group of muscles in one maximal contraction. (c). Muscle endurance is the muscle's capacity to perform continuous contractions at sub-maximal intensity levels, (Ananda et al., 2022). Muscle endurance is needed to maintain activities that are dominated by the use of muscles or muscle groups. (d). Flexibility is the ability of joints to perform movements within the joint's maximum range of motion, (Marlina Siregar et al., 2018). Flexibility determines the maximum amount of joint movement according to the possible movement (range of movement). Body composition is the structure of the body described as two components, namely body fat and lean mass. Body composition includes two things, namely Body Mass Index (BMI) and body fat percentage, (Suryana & Fitri, 2017). The Indonesian Student Fitness Test for upper class students uses the Indonesian Student Fitness Test (TKSI) phase C with an instrument consisting of five components, namely; (1) Child Ball Test, (2) Tok Tok Ball Test, (3) Move The Ball Test, (4) Shuttle Run 8 x 10m Test, (5) 600 m Run Test.

METHOD

This study employed a descriptive-quantitative design using a survey method and data collection techniques using tests and measurements. Data obtained from the tests and measurements were analyzed using descriptive statistics techniques expressed in percentage form. The population in this study was all upper-grade students at the Muhammadiyah University of Purwokerto Elementary School, totaling 140 students. The sample in this study was drawn using a total sampling technique. The instrument used in this study was the Indonesian Student Fitness Test for upper-grade students using the Indonesian Student Fitness Test (TKSI) phase C, with an instrument consisting of five components: (1) Child Ball Test, (2) Tok Tok Ball Test, (3) Move the Ball Test, (4) Shuttle Run 8 x 10m Test, (5) 600m Run Test.

DISCUSSION

The research results obtained a maximum score of 23 and a minimum score of 9. The mean was 18.98 and the standard deviation was 2.61. The mode was 18 and the median was 19. Based on the established Indonesian Physical Fitness Test norms, data analysis yielded the following results for the physical fitness levels of upper-grade students at Muhammadiyah University of Purwokerto Elementary School in 2025:

Grade Interval	Category	Frequency	Relative Frequency
22-25	Very Good	14	10%
18-21	Good	84	60%
14-17	Fair	35	25%
13-10	Poor	5	5%
5-9	Very Poor	0	0,00%
Total		140	100,00%

Based on the table above, it can be seen that the overall physical fitness level of upper-grade students at Muhammadiyah University of Purwokerto Elementary School in 2025 was 14 students (10%) in the excellent category, 84 students (60%) in the good category, 35 students (25%) in the moderate category, 7 students (5%) in the poor category, and 0 students (0.00%) in the very poor category. The highest frequency is in the good category, so it can be concluded that the level of physical fitness of upper class students at the Muhammadiyah University of Purwokerto Elementary School in 2025 is good.

1. Physical Activity

The physical education program for upper-grade students at Muhammadiyah University of Purwokerto Elementary School in 2025 was conducted for 4 x 35 minutes per week. This timeframe of only 2 hours and 10 minutes is certainly insufficient to improve physical fitness in terms of frequency, intensity, and time. Frequency is the number of exercise units per unit of time. Intensity refers to the intensity of a physical activity, while time is the number of seconds required for each physical activity. Therefore, it is natural that many upper-grade students at Muhammadiyah University of Purwokerto Elementary School in 2025 are physically fit, showing a strong interest in participating in extracurricular activities and joining specific sports clubs that align with their abilities and interests.

2. Teachers

The role of Physical Education, Sports, and Health teachers is crucial to a student's physical fitness achievement. Elementary school students still require significant guidance and direction from teachers. Physical Education, Sports, and Health teachers in elementary

schools are required to play an active role in efforts to improve student physical fitness. Optimizing existing class time is essential for physical education teachers, as a weekly four-hour class is unlikely to improve students' physical fitness. The Teaching and Learning Process (PBM) is a series of learning activities designed to achieve predetermined learning objectives. Physical education lessons must be planned to facilitate PBM implementation and improve learning outcomes. The better the planning, the easier the teaching and learning activities can be achieved.

3. School Equipment and Facilities

The success of the physical education program in elementary schools requires adequate sports equipment and facilities. If these are limited, this will impact the implementation of physical education lessons. Physical education lessons directly impact physical activity if not implemented effectively. Implementing sports in elementary schools is often merely a way to fill class time, resulting in a decline in students' physical fitness levels. Therefore, it is necessary to add facilities and infrastructure to support the success of the physical education program at the Muhammadiyah University of Purwokerto Elementary School in 2025, as well as modify the equipment used or choose alternative types of physical activities to address the limitations of equipment and facilities.

4. Food Consumption.

The energy required for physical activity or work is obtained from the metabolism of food consumed daily. This food must contain substances needed by the body, such as carbohydrates, proteins, fats, minerals, vitamins, and water. A person who does not consume enough of these essential nutrients will certainly affect the quality and quantity of physical activity. Low parental economic status and a lack of parental knowledge about nutritious food sources will also affect the food consumed by students. With parents' low incomes to meet the need for nutritious food sources, this condition logically leads to parents' inability to meet their children's nutritional needs. Senior students at Muhammadiyah University of Purwokerto School in 2025 who have poor, or even very poor, physical fitness levels are likely due to a lack of daily nutrients, resulting in insufficient energy for physical activity.

CONCLUSION

Based on the results of the study, the physical fitness level of upper-grade students at Muhammadiyah University of Purwokerto Elementary School in 2025 was good. 14 students

(10%) were categorized as excellent, 84 students (60%) were categorized as good, 35 students (25%) were categorized as moderate, 7 students (5%) were categorized as poor, and 0 students (0.00%) were categorized as very poor.

The physical education program for upper-grade students at Muhammadiyah University of Purwokerto Elementary School in 2025 was conducted for 4 x 35 minutes per week. Physical Education, Sports, and Health teachers in elementary schools are required to play an active role in improving students' physical fitness. Optimizing the available class time is essential for physical education teachers, as only 4 hours of class time per week is unlikely to improve a student's physical fitness.

The conclusion is that the physical fitness level of upper-grade students at Muhammadiyah University of Purwokerto Elementary School in 2025 is influenced by several factors, including: These factors include the activities undertaken, physical education teachers, available equipment and facilities, and the food consumed by students. Therefore, special understanding and attention are essential for improving physical fitness from all parties. When students have good physical fitness, it is expected to support the teaching and learning process. A supportive teaching and learning process certainly provides students with the opportunity to concentrate. High levels of concentration make it easier for students to understand the material presented by the teacher. The outcome achieved when these factors are met is maximum academic achievement. Maximum academic achievement will undoubtedly support the realization of national education goals.

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