



**Physical Fitness and Physical Activity of Students at Elementary School
Country 2 Dangdeur**

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Abstract

This study aims to determine the level of physical fitness and physical activity among students at SDN 2 Dangdeur. The research method used is descriptive quantitative with a survey technique. The population and sample consisted of 74 students (38 boys and 36 girls), selected using total sampling. The instrument used to measure physical fitness was the Indonesian Student Fitness Test (TKSI) Phase C, while physical activity was assessed using a modified daily activity questionnaire tailored to elementary school students. The results showed that most boys had a Moderate level of physical fitness (65.8%), followed by Good (15.8%), Poor (15.8%), and Very Poor (2.6%). Meanwhile, most girls were in the Poor category (63.9%), followed by Moderate (33.3%) and Very Poor (2.8%). In terms of daily physical activity, boys were generally quite active, with 13.2% categorized as Less Active, 65.8% as Moderately Active, and 21.1% as Very Active. Girls were also quite active, with 13.9% in the Less Active category, 66.7% Moderately Active, and 19.4% Very Active. These results indicate that boys have higher levels of physical fitness and activity compared to girls. The findings highlight the need for structured physical activity programs in schools to optimally support students' physical fitness.

Keywords: Physical fitness, Physical activity, Elementary school students, TKSI.

INTRODUCTION

Physical fitness is one of the important aspects of human life that greatly determines a person's ability to adapt to physical and psychological stress. In the context of education, physical fitness plays an important role in supporting learning productivity and overall student development. Physical education, as part of the curriculum in elementary schools, has the main goal of improving physical fitness, motor skills, knowledge, and the formation of healthy attitudes and lifestyles through various physical activities. (Irsanty et al., 2019)

However, the implementation of physical education in elementary schools is often not optimal. Exercise activities that are only done once a week are not enough to maintain the physical fitness of students. In fact, physical fitness can decrease significantly without regular physical exercise, which has a direct impact on children's learning focus, endurance, and motor development. In addition, lack of facilities, limited time allocation, and low student participation in physical activities are obstacles in achieving physical education goals.

A number of literature shows that regular physical activity can increase immunity, prevent obesity, and support children's mental health. Unfortunately, in this modern era, many elementary school students are less physically active, sit in class more often, and choose passive activities. This raises concerns about a decline in physical fitness levels in general. Data from the Sport Development Index (2006) even shows that the majority of Indonesians are in the category of physical fitness that is lacking and very lacking (Darmawan, 2017).

This condition is the background for the importance of conducting research to determine the level of physical fitness and physical activity of elementary school students, especially at SD Negeri 2 Dangdeur, Purwakarta Regency. The lack of data on the fitness condition of students in schools is the fundamental reason for further measurements and analysis. The results of the research are expected to be the basis for schools to design more structured and effective physical education programs, as well as encourage the active role of students and the environment in shaping healthy lifestyles.

Therefore, this study aims to determine the level of physical fitness and physical activity of SD Negeri 2 Dangdeur students using a survey-based quantitative descriptive method. This research is also expected to be able to identify factors that affect students' physical fitness and provide recommendations that can be used as a basis for the preparation of a more optimal physical education learning program in elementary schools.

METHODS

This study uses a quantitative approach with a descriptive survey method. According to Arikunto, descriptive research aims to describe a phenomenon or variable as it is without the intention of testing a specific hypothesis. In the quantitative approach, data is expressed in the form of numbers from the process of collection, processing, to presentation, so as to be able to provide an objective picture of the observed phenomenon.

The survey method was chosen to obtain systematic, objective, and measurable data, in order to accurately photograph population characteristics.

The population in this study includes all students of grades V and VI at SD Negeri 2 Dangdeur, with a total of 74 people, consisting of 38 male students and 36 female students. Sampling is carried out using the total sampling technique or saturated sampling, which is a sampling technique where all members of the population are used as samples because the number is limited and can be reached thoroughly. This technique allows for representative results and minimal bias in measurements.

Data collection in this study was carried out using two main types of instruments. The first instrument is the Indonesian Student Physical Fitness Test (TKSI) Phase C, which consists of five core components: *Shuttle Run 4×10 meters with Ball* to measure agility and speed; *Run 600 meters* to measure cardiorespiratory endurance; *Child Ball (modification)* to measure motor coordination; *Toktok Ball* to measure the accuracy of movement; and *Move the Ball* to measure the strength of the abdominal muscles. Each test component is equipped with implementation guidelines, necessary equipment, assessment indicators, and has gone through a validity and reliability test process, so that the measurement results can be scientifically accounted for.

The second instrument was a closed physical activity questionnaire, which consisted of 23 statements with two answer choices, namely "Yes" and "No". This questionnaire was compiled to reflect the five dimensions of students' physical activity, namely activities during breaks, involvement in learning, daily habits outside of class hours, participation in extracurricular activities, and healthy lifestyle tendencies. The preparation of the questionnaire has been validated in terms of content to ensure that each indicator used is feasible and appropriate in measuring the level of physical activity of students.

The procedure for implementing the research includes several stages, namely: (1) the management of research permits to the school; (2) determination of the schedule for the implementation of fitness tests and questionnaires based on the PJOK lesson calendar; (3) the implementation of fitness tests and filling out questionnaires directly at school; and (4) data processing and analysis to draw conclusions that are objective and academically accountable.

The collected data was analyzed using quantitative descriptive statistical methods with the help of IBM SPSS Statistics software version 27. The analysis is carried out through percentage calculation using the formula:

$$p = \frac{f}{n} \times 100\%$$

With the caption: p = percentage, f = frequency of scores or answers, and n = total number of respondents. The scores of each instrument, both fitness tests and physical activity questionnaires, are then converted into a category scale. For TKSI, the scores are classified into five categories, namely Very Good, Good, Moderate, Poor, and Very Poor. Meanwhile, for physical activity, the results were categorized into three levels, namely Very Active, Moderately Active, and Less Active, based on the percentage of "Yes" answers from all observed indicators.

RESULTS AND DISCUSSION

Results

Table 1 Distribution of Physical Fitness Test Frequency for Male Students SDN 2 Dangdeur

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less Once	1	2.6	2.6	2.6
Less	6	15.8	15.8	18.4
Medium	25	65.8	65.8	84.2
Good	6	15.8	15.8	100.0
Total	38	100.0	100.0	100.0

Based on **Table 1** above, it can be concluded that the physical fitness level of 38 male students of SDN 2 Dangdeur is 1 person (2.6%) in the Less category, 6 people (15.8%) in the Less category, 25 people (65.8%) in the medium category, 6 people (15.8%) in the Good category.

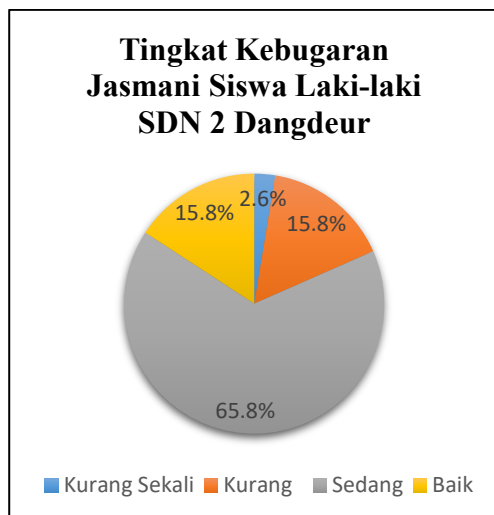


Figure 1 Percentage of Physical Fitness Level of Male Students of SDN 2 Dangdeur

Based on **Figure 1** above, the results of the physical fitness test of 38 Male Students of SDN 2 Dangdeur, the light blue pie diagram shows (2.6%) in the Less once, orange shows (15.8%) in the Less category, ash color shows (65.8%) in the medium category, yellow color (35.8%) in the good category.

Table 2 Distribution of Frequency of Physical Fitness Tests for Female Students of SDN 2 Dangdeur

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less Once	1	2.8	2.8	2.8
Less	23	63.9	63.9	66.7
Medium	12	33.3	33.3	33.3
Total	36	100.0	100.0	100.0

Based on **Table 2** above, it can be concluded that the physical fitness level of 36 female students of SDN 2 Dangdeur was 1 person (2.8%) in the Less category, 23 people (63.9%) in the Less category, 12 people (33.3%) in the medium category.

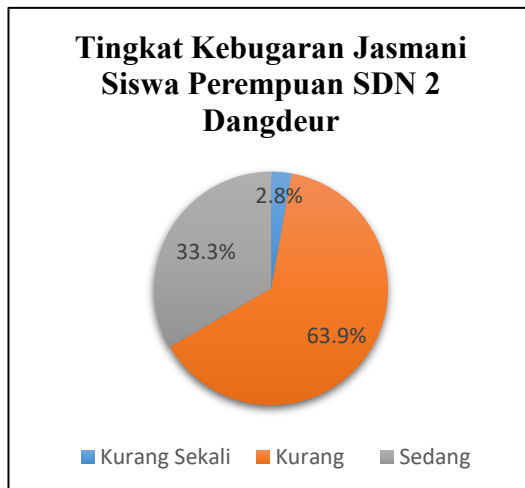


Figure 2 Percentage of Physical Fitness Level of Female Students of SDN 2 Dangdeur

Based on **Figure 2** above, the results of the physical fitness test of 36 female students of SDN 2 Dangdeur, the light blue pie diagram shows (2.8%) in the Less one category, orange shows (63.9%) in the less category, the gray color shows (33.3%) in the medium category.

Table 3 Distribution of Frequency of Physical Activity for Male Students of SDN 2 Dangdeur

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less Active	5	13.2	13.2	13.2
Quite Active	25	65.8	65.8	78.9
Highly Active	8	21.1	21.1	100.0
Total	38	100.0	100.0	

Based on **Table 3** above, that the results of the Physical Activity Questionnaire test from 38 Male Students of SDN 2 Dangdeur were 5 people (13.2%) in the Less active category, 25 people (65.8%) in the Moderately Active category, 8 people (21.1%) in the Very Active category.

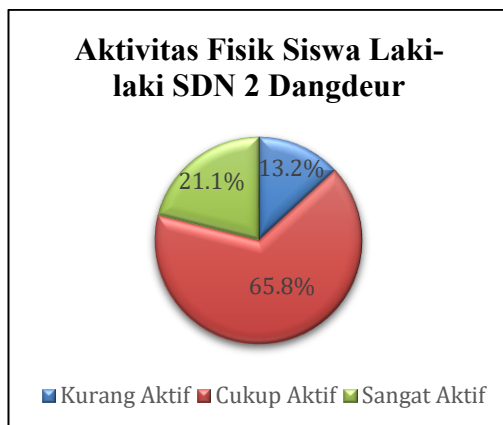


Figure 3 Percentage of Physical Activity of Male Students of SDN 2 Dangdeur

Based on **Figure 3** above, the results of the Physical Activity Questionnaire test from 38 Male Students of SDN 2 Dangdeur, the light blue pie diagram shows (13.2%) in the less active category, orange shows (65.8%) in the moderately active category, the gray color shows (21.1%) in the very active category.

Table 4 Distribution of Frequency of Physical Activity of Female Students of SDN 2 Dangdeur

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less Active	5	13.9	13.9	13.9
Quite Active	24	66.7	66.7	80.6
Highly Active	7	19.4	19.4	100.0
Total	36	100.0	100.0	

Based on **Table 4** above, that the results of the Physical Activity Questionnaire test from 36 female students of SDN 2 Dangdeur were 5 people (13.9%) in the Less Active category, 24 people (66.7%) in the Quite Active category, 7 people (19.4%) in the Very active category.

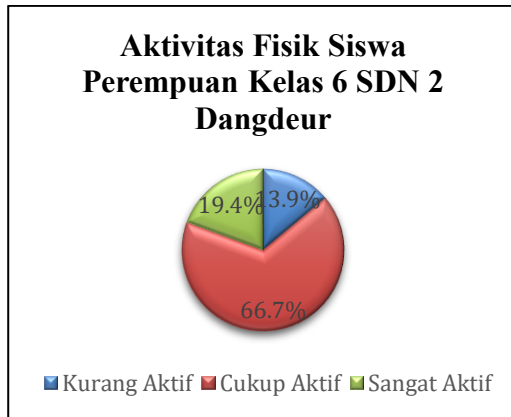


Figure 5 Percentage of Physical Activity of Female Students of SDN 2 Dangdeur

Based on **Figure 5** above, the results of the Physical Activity Questionnaire test from 36 female students of SDN 2 Dangdeur, the light blue pie diagram shows (13.9%) in the less active category, orange shows (66.7%) in the moderately active category, the gray color shows (19.4%) in the very active category.

Discussion

Based on the results of the study, the level of physical fitness of male students at SDN 2 Dangdeur is classified as "moderate", while female students are in the "less" category. This difference indicates a difference in physical fitness based on gender. The level of individual physical fitness is closely related to physical activity that is carried out regularly, both in the school environment and outside of school. Based on the discussion, there are several main factors that affect the physical fitness of students, including the frequency of physical exercise, lifestyle, environmental support, and the availability of sports facilities and infrastructure at school.

The results of this study are in line with previous studies that stated that children's physical activity tends to decrease, while the prevalence of overweight increases. This reflects that the quality of physical education in a number of educational units, including in Indonesia, is still relatively low [63]. These findings can be an important indicator in evaluating the quality of Physical Education, Sports, and Health (PJOK) learning.

Through a physical activity questionnaire, it was known that most of the male and female students at SDN 2 Dangdeur were in the "quite active" category. Physical activities that students generally do include playing outside the house, walking to school, and helping parents at home. However, there are also a number of students who show low levels of physical activity. This is due to the high duration of free time spent on passive activities, such as playing gadgets or watching television. For example, in female students in grades

V and VI, only about 19.44% fall into the "very active" category, indicating a low intensity of moderate to heavy physical activity among them.

Some students also stated that they only actively moved while taking PJOK lessons, and did not engage in strenuous physical activity outside of class hours [64]. Consequently, when physical fitness was measured, female students tended to obtain lower results than male students. Previous research has also shown that physical activity has a positive impact on the function of the brain's frontal lobe, which plays a role in mental concentration and planning. These two functions have significant implications for students' thinking abilities and learning achievement [29].

Thus, the findings in this study support the theory and results of previous studies that state that the level of physical fitness and physical activity of elementary school students is still relatively low [63]. This emphasizes the importance of attention to improving the quality of physical activity in the school environment as an integral part of building students' character and intelligence. By referring to the formulation of the problem, it can be concluded that the physical fitness and physical activity of students at SDN 2 Dangdeur still need to be improved to support optimal physical, mental, and academic development.

CONCLUSION

This study aims to determine the level of physical fitness and physical activity of SD Negeri 2 Dangdeur students. Based on the measurement results, it was found that male students had a better level of physical fitness than female students, although in general most students were in the moderate and moderately active category. The physical activities carried out by students are not fully optimal in supporting the achievement of good physical fitness. Therefore, a more structured and routine physical activity program is needed in the school environment to support students' physical fitness as a whole and continuously. These findings are consistent with the research objectives and can be the basis for more effective physical education learning planning in elementary schools.

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