



Survey of Physical Fitness Levels Among Sixth-Grade Elementary School Students

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Abstract: Physical fitness is an important component of children's growth and development because it supports daily activities, learning achievement, and overall health. Recently, the decline in children's physical activity due to increased use of digital technology has become a concern among educators. This study aimed to determine the physical fitness level of sixth-grade students at Gajah Mada Private Elementary School, Medan, during the 2024/2025 academic year. The study employed a descriptive quantitative research design using a survey method. Twenty-three sixth-grade students participated in the study. Data were collected using the Indonesian Physical Fitness Test (Tes Kebugaran Jasmani Indonesia/TKJI) for children aged 10–12 years, consisting of five test items: a 40-meter sprint, flexed-arm hang, 30-second sit-up, vertical jump, and 600-meter run. Data were analyzed using descriptive statistics in the form of frequencies and percentages. The findings indicated that 13 students (56.52%) were classified in the Good category, six students (26.09%) were in the Moderate category, and four students (17.39%) achieved the Very Good category. No students were classified as Poor or Very Poor. These findings indicate that the overall physical fitness level of sixth-grade students at Gajah Mada Private Elementary School is generally good. Schools are encouraged to maintain and improve students' physical fitness through regular physical education, extracurricular sports activities, and healthy lifestyle promotion.

Keywords: Physical Fitness; Elementary School Students; TKJI; Physical Education; Survey

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INTRODUCTION

Physical education is an essential component of elementary education that contributes to students' physical growth, motor development, cognitive performance, and psychosocial well-being. Through structured physical activities, students develop healthy lifestyles, improve physical fitness, and acquire lifelong movement skills.

Physical fitness refers to an individual's ability to perform daily activities efficiently without experiencing excessive fatigue while maintaining sufficient energy for additional activities. Good physical fitness supports children's academic achievement, emotional well-being, and overall quality of life (Sianipar, M., Sari, L. P., & Karo, A. A. P. K, 2024). Therefore, monitoring students' physical fitness has become one of the important indicators of successful physical education programs.

In recent years, concerns have emerged regarding declining physical activity among school-aged children due to sedentary lifestyles and increasing digital technology use. Lee et al. (2022) reported that elementary and middle school students experienced significant decreases in physical fitness following the COVID-19 pandemic because of reduced opportunities for physical activity. These findings highlight the importance of regular fitness assessment and school-based physical activity programs.

School-based physical activity has been shown to provide broader educational benefits beyond physical health. Goh et al. (2022) found that participation in before-school physical activity programs significantly improved students' social and emotional learning, indicating that physical activity contributes to students' holistic development.

Recent research has also demonstrated that physical activity positively influences children's psychological well-being. Belaire et al. (2024) reported significant relationships between physical activity, resilience, social-emotional learning, and psychological well-being among school-aged children. Students with higher levels of physical activity tend to demonstrate better emotional adjustment and lower depressive symptoms.

Although technological development offers numerous educational opportunities, it has also reduced children's participation in physical activities. Chung et al. (2025) explained that the rapid integration of digital technologies into elementary education requires schools to maintain a balance between technology use and physical activity to support children's healthy development.

Instructional strategies likewise influence students' engagement in learning. Barekat (2023) demonstrated that play-based learning methods increase students' motivation and participation in classroom learning. Similar principles can be applied in physical education by integrating enjoyable activities that encourage students to participate actively in fitness-related exercises.

Furthermore, Welland and Burns (2025) suggested that students' engagement and enjoyment during learning activities contribute to better learning outcomes through increased motivation and concentration. These findings indicate that enjoyable physical education experiences may also encourage students to participate more actively in physical fitness activities.

Several studies conducted in Indonesia have also reported that elementary school students generally possess moderate to good physical fitness levels. Sando et al. (2023) found that most Grade V and VI students demonstrated moderate physical fitness, while Burhaein and Anjeli (2025) and Fitriadi et al. (2025) reported similar findings among Indonesian elementary school students. These studies indicate that although students generally demonstrate satisfactory physical fitness, continuous evaluation and improvement remain necessary.

Based on preliminary observations conducted at Gajah Mada Private Elementary School, Medan, students' physical fitness had never been formally evaluated using standardized testing. Therefore, this study aims to determine the physical fitness level of sixth-grade students using the Indonesian Physical Fitness Test (TKJI). The findings are expected to provide valuable information for teachers and school administrators in improving physical education programs and promoting healthy lifestyles among students.

METHOD

This study employed a descriptive quantitative research design using a survey method to determine the physical fitness level of sixth-grade students at Gajah Mada

Private Elementary School, Medan. A descriptive approach was selected because the study aimed to describe the existing level of students' physical fitness without manipulating research variables or testing causal relationships.

The research was conducted at Gajah Mada Private Elementary School, Medan, during April–May 2025. The study population consisted of all sixth-grade students enrolled in the 2024/2025 academic year. Since the number of students was relatively small, the entire population was involved as research participants. Therefore, the sample consisted of 23 students, including 14 boys and 9 girls.

Data were collected using the Indonesian Physical Fitness Test (Tes Kebugaran Jasmani Indonesia/TKJI) for children aged 10–12 years, which has been widely used as a standardized instrument for measuring physical fitness among Indonesian school-aged children. The test battery consisted of five physical fitness components:

1. 40-meter sprint (speed)
2. Flexed-arm hang (arm and shoulder endurance)
3. 30-second sit-up (abdominal muscular endurance)
4. Vertical jump (leg power)
5. 600-meter run (cardiorespiratory endurance)

Each student's performance was scored according to the official TKJI norms based on age and gender. The total score was then classified into five categories:

Table 1. Classification of Physical Fitness Level

Total Score	Category
22–25	Very Good
18–21	Good
14–17	Moderate
10–13	Poor
5–9	Very Poor

The percentage of each category was calculated using the following formula:

$$P = \frac{F}{N} \times 100\%$$

Where:

- P = Percentage
- F = Frequency
- N = Number of participants

The results were analyzed descriptively and presented using frequency distributions, percentages, tables, and figures to provide a comprehensive description of students' physical fitness levels.

RESULT AND DISCUSSION

Result

The results of the Indonesian Physical Fitness Test (TKJI) demonstrated that students generally performed well across all five physical fitness components.

In the 40-meter sprint, most male students (78.57%) and female students (66.67%) were categorized as Very Good, indicating excellent speed performance.

The flexed-arm hang results showed that half of the male students (50%) and most female students (66.67%) achieved the Good category, reflecting satisfactory upper-body muscular endurance.

For the 30-second sit-up, 50% of male students and 55.56% of female students were categorized as Good, indicating adequate abdominal muscular endurance.

In the vertical jump, 50% of male students achieved the Good category, while most female students (66.67%) were categorized as Moderate, suggesting that lower-body explosive power among female students requires further improvement.

The 600-meter run, which measured cardiorespiratory endurance, showed that most male students (42.86%) and female students (66.67%) were classified as Moderate, indicating that aerobic endurance remains the weakest physical fitness component among participants.

Overall Physical Fitness Level

The overall physical fitness assessment revealed that the majority of students demonstrated satisfactory physical fitness.

Table 2. Overall Physical Fitness Level of Students

Category	Frequency	Percentage (%)
Very Good	4	17.39
Good	13	56.52
Moderate	6	26.09
Poor	0	0
Very Poor	0	0
Total	23	100

More than half of the students (56.52%) were categorized as Good, while 17.39% achieved Very Good physical fitness. No students were classified as Poor or Very Poor, indicating that the physical fitness condition of Grade VI students at Gajah Mada Private Elementary School was generally satisfactory.

Discussion

The present study found that the majority of sixth-grade students possessed a good level of physical fitness, indicating that regular participation in physical education classes has contributed positively to students' physical development. Although no students were categorized as having poor physical fitness, approximately one-quarter of participants remained in the moderate category, suggesting that further improvement is still necessary.

These findings are consistent with Abduh et al. (2020), who reported that students with higher physical fitness generally achieve better academic performance and demonstrate greater participation during classroom learning. Good physical fitness enables children to perform learning activities with less fatigue while maintaining concentration throughout the school day (Sarumaha, M., Usman, K., Sari, I. E. P., & Karo, A. A. P. K, 2025).

The findings also support Bayu et al. (2021), who explained that the Indonesian Physical Fitness Test (TKJI) remains an effective and standardized instrument for evaluating physical fitness among elementary school students. The use of TKJI enables schools to monitor students' physical development objectively and identify aspects requiring improvement.

The relatively lower performance observed in the 600-meter run suggests that cardiorespiratory endurance should receive greater attention during physical education instruction. Similar findings were reported by Sinuraya (2020), who emphasized that

aerobic endurance among students can be improved through continuous physical activity and structured exercise programs.

Furthermore, Susanti (2023) demonstrated that modified game-based learning effectively improves students' physical fitness while increasing learning enjoyment. Incorporating active games into physical education classes may therefore encourage greater student participation and improve overall fitness levels.

In addition to school-based activities, children's physical fitness is influenced by daily lifestyle habits. Excessive use of smartphones and reduced outdoor play opportunities may decrease children's physical activity levels. Consequently, schools and parents should work collaboratively to encourage regular exercise, balanced nutrition, and healthy lifestyles.

The findings indicate that the physical education program at Gajah Mada Private Elementary School has contributed positively to students' physical fitness. However, additional extracurricular sports activities and more frequent aerobic exercises are recommended to improve students' endurance and maintain long-term physical fitness.

CONCLUSION

This study aimed to determine the physical fitness level of sixth-grade students at Gajah Mada Private Elementary School, Medan, during the 2024/2025 academic year using the Indonesian Physical Fitness Test (TKJI) for children aged 10–12 years.

The findings revealed that the majority of students demonstrated a Good level of physical fitness. Specifically, 13 students (56.52%) were categorized as Good, 6 students (26.09%) were categorized as Moderate, and 4 students (17.39%) achieved the Very Good category. No participants were classified as Poor or Very Poor, indicating that the overall physical fitness condition of the students was satisfactory.

Although the results indicate that students generally possess adequate physical fitness, improvement is still needed, particularly in cardiorespiratory endurance, as reflected by the 600-meter running test. Schools should therefore continue to strengthen physical education programs by increasing students' opportunities to participate in structured physical activities, extracurricular sports, and healthy lifestyle programs.

One limitation of this study is the relatively small number of participants and the focus on only one elementary school. Future studies are recommended to involve larger samples from different schools and investigate additional factors affecting physical fitness, such as nutritional status, physical activity patterns, body mass index, and lifestyle behaviors.

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CONFLICT OF INTEREST

The author declares that there is no conflict of interest regarding the publication of this research. The research was conducted independently, and no financial or commercial relationships influenced the research process or findings.

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