



# Profile of Students' Physical Activity Ability in Ngupasan Public Elementary School, Yogyakarta City

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**Abstract.** The purpose of this study was to determine the ability of physical activity of students of SD Negeri Ngupasan Yogyakarta. The population in this study were upper-grade students of Ngupasan State Elementary School, Yogyakarta. Cluster random sampling was used to obtain 80 students consisting of 36 boys and 44 girls. The Physical Activity Questionnaire for Older Children (PAQ-C) was modified according to conditions in Indonesia. The results obtained data from the male gender with a very low category of 36%, low category of 33%, medium category of 9%, high category of 0%, and very high category of 11%. While the female gender has a very low category of 30%, a low category of 39%, a medium category of 30%, a high category of 0%, and a very high category of 2%. The physical activity of male students is in the very low category while female students are low.

**Keywords:** Students, Physical Activity Ability, Elementary school

## 1 Introduction

Primary school students in grades IV, V, and VI are aged 9-12 years. The basis of mindset development is determined by children's learning experiences and activities [1]. Education for children in grades 4-6 is an important stage to deal with future development. Activities carried out by children need to be considered carefully so that they have meaning in realizing quality resources [2]. At this stage, children aged 9 to 12 years experience drastic physical development, including physical improvement, agility in movement, speed, better body coordination, and more developed body balance. Physical activity is essential to optimise the mastery of movement skills. It will lead to healthy behaviour throughout life [3]. Physical activity can be realized in sports activities and outdoor activities using regular motion. Move according to the rules to get fitness benefits to the body. Motion pays attention to intensity within safe limits.

The current phenomenon is that children tend to move less. This is in accordance with the opinion of [3] that children today have limited movement because they play many gadgets and eat instant food. The risk of obesity is prone to increase. It is necessary to take targeted action in the form of socialisation. The goal is

that children are willing to move to do various regular physical activities actively. Behaviour change can be pursued through Physical Education learning. Physical activity, especially in physical education, has a crucial role in the formation and development of humans throughout life. In addition, physical education also includes a beneficial element of environmental exploration. Students are encouraged to explore the world around them through outdoor activities. This can include hiking in nature, cycling in the local area, or participating in forest expedition programs. In the context of physical activity in the form of sports, it is also not far from the wordplay as recreation that exists in physical education. Through playing, exercising and participating in systematically organised and planned outdoor activities, students not only build their physical fitness but also develop a number of essential skills. For example, they learn about the importance of teamwork, strategising in games, and overcoming physical challenges that arise during activities. All these experiences provide valuable provisions for students' personal and social development.

Physical education is the foundation for understanding the importance of physical activity in leading a healthy and meaningful life. By actively participating in physical education, students will be prepared to face the challenges of life that lie ahead and lead a healthy and active lifestyle. Students who lead active lifestyles with optimal levels of physical activity have an advantage in facing various learning challenges at school. When they prioritize physical activity in their daily routine, such as running, cycling, playing or swimming regularly, it helps to improve their sleep quality and fitness levels. That way, when it's time to focus on learning, they tend to be more refreshed and able to maintain concentration better. Achieving physical fitness is not limited to a particular group or person, it can be achieved by everyone, regardless of age, gender or initial fitness level. To achieve good physical fitness, you can do physical activities such as walking in the morning, going for a small run every afternoon or cycling.

A small thing that can be done by students to gain physical fitness is by walking or cycling when going to school, this is a form of effort to gain physical fitness so that increased movement in students. Research has shown that students who regularly engage in physical activity tend to have better cognitive abilities. Thus, physical activity, as an integral part of students' lives, can provide long-term benefits in improving their academic performance.

## **2 Method**

This research uses a quantitative approach. The method used is a survey. Students fill out a questionnaire describing physical activities performed during the last seven days.

### **2.1 Study Design**

This study aims to describe the profile of physical literacy skills of students of SD Ngupasan Yogyakarta. A quantitative approach with a survey was used to obtain a description of the physical literacy skills of 80 students of SD Ngupasan Yogyakarta

who were selected by cluster sampling. The age of the research sample was between 9-12 years old. Students filled out a questionnaire describing physical activity during the last seven days. The instrument used was a modification of the PAQ-C. Adjustments were made to the type of physical activity selection that was not carried out in the snow. Because Yogyakarta City is in a tropical country. Data processing in this study used a one-sided t-test.

## **2.2 Research Participants**

The population in this study were children aged 9-12 years at Ngupasan State Elementary School in Yogyakarta City. Cluster random sampling was used to obtain 80 students consisting of 36 males and 44 females. The participants of this study were also included in elementary school classes IV, V, and VI with sampling or sampling techniques using cluster random sampling techniques.

## **2.3 Data Collection and Instrumentation**

This research instrument uses a modified PAQ-C questionnaire with five answer choices, namely never, 1-2 times, 3-4 times, 5-6 times, and more than seven times. In addition, there are choices of never, rarely, sometimes, often, very often. The assessment of the questionnaire is determined by the selected criteria. If it is in accordance with the answer, the value obtained will be greater than the value obtained with a score range of 0-5. Indonesia is a tropical country, so it does not include physical activities performed in the snow.

## **2.4 Statistical Analysis**

The Physical Activity Questionnaire for Older Children (PAQ-C) was modified according to conditions in Indonesia with 35 questions. Data processing in this study used a one-sided t-test.

# **3 Result**

The results showed that the ability of physical activity in students of SD Negeri Ngupasan Kota Yogyakarta in this study was measured by 35 questions with a score range of 0-5. The results of statistical analysis of the research data were obtained as follows:

**Table 1.** Statistical Results of Research on Physical Activity Ability of Students of Ngupasan Public Elementary School, Yogyakarta City

Variable	N	Min	Max	Mean	Median	Mode	Std. Dev
Physical Activity Male Students	34	55	139	94.28	90.5	73	20.97
Physical Activity Female Students	44	57	153	94.27	95	95	18.11

Based on the results in Table 1 above, it can be described that the physical activity of male students with a value, the average (Mean) in this study is 94.28, and the standard deviation value is 20.97. Then the minimum value in this study is 55, while the maximum value is 55. While the physical activity of female students had a value, the average (Mean) in this study was 94.27, and the standard deviation value was 18.11. Then the minimum value in this study was 57, while the maximum value was 153. The results in this study came from 80 students, who were divided into two genders, namely 34 male students and 44 female students who were sampled in this study. The distribution of the results of research on the physical activity abilities of students of SD Negeri Ngupasan Kota Yogyakarta can be categorised as follows:

**Table 2.** Description of Research Results on Physical Activity Ability of Male Students of SD Negeri Ngupasan Yogyakarta

Criteria	Frequency	Percentage %
Very Low	13	36%
Low	12	33%
Medium	7	19%
High	0	0%
Very High	4	11%
<b>Total</b>	<b>36</b>	<b>100%</b>

**Table 3.** Description of Research Results on Physical Activity Ability of Female Students of Ngupasan Public Elementary School, Yogyakarta

<b>Criteria</b>	<b>Frequency</b>	<b>Percentage %</b>
Very Low	13	30%
Low	17	39%
Medium	13	30%
High	0	0%
Very High	1	2%
<b>Total</b>	<b>44</b>	<b>100%</b>

The physical activity ability of Ngupasan Public Elementary School students in Yogyakarta City with an age range of 9-12 years in grades IV, V, and VI. The results of the physical activity ability research stated that male students with a very low category were 36%, the low category was 33%, the medium category was 19%, the high category was 0%, and the very high category was 11% while female students showed a very low category of 30%, the low category was 39%, the medium category was 30%, the high category was 0%, and the very high category was 2%. These results mean that the physical activity ability of Ngupasan Public Elementary School students in Yogyakarta City is in the very low category for male students, while female students are in the low category.

This states that most students at SD Negeri Ngupasan Kota Yogyakarta have engaged in physical activity in the very low category for male students, while for female students, the low category. When looking at the frequency table on the results of the study, it can be seen that the data on the physical activity of students at Ngupasan State Elementary School, Yogyakarta City, is spread in various categories. A total of 13 male students by 36% while 13 female students by 30% were in the very low category. Meanwhile, there are 12 male students with 33% and 17 female students with 39% in the low category.

A total of 7 male students, with a result of 19% and 13 female students, with a result of 30%, were in the moderate category. In the high category, as many as 0 male students with 0% results and 0 female students with 0% results. This shows the need for more attention in encouraging them to participate in physical activity more actively. There were four male students with a result of 11% while one female student with a result of 2% was in the very high category. The results of this study indicate that serious attention is needed to help them improve their physical well-being. In order to improve physical activity ability at SD Negeri Ngupasan Yogyakarta, there needs to be a more focused and sustainable strategy to encourage students to be active in physical activity. This will involve the participation of all parties, including the school, teachers, parents, and the students themselves, to create an environment that supports an active lifestyle. In this way, it is hoped that a healthier younger generation will be created who are aware of the importance of physical activity to maintain a healthy body and improve quality of life.

## 4 Discussions

Children's mindsets and their developing characters are greatly influenced by the various learning experiences and activities they experience from an early age. This is a critical period in their development, even before they enter primary school. It is essential to realise that by the time they reach 9-12 years of age, which corresponds to grades 4 to 6 in Primary School, children's development often proceeds at an astonishing pace. This illustrates how vital early developmental foundations are in shaping their personality and mindset. During this stage, children begin to experience significant changes in the way they think, feel and act.

They are more open to new knowledge and experiences they encounter on a daily basis. The influence of their environment, family, peers and the activities they participate in play a significant role in shaping their mindset. Development at this age also includes significant social and emotional development. Children begin to develop an understanding of themselves, understand the feelings of others, and build more complex social relationships. All of this is a result of the accumulated learning experiences and interactions they have had since early childhood. As caring adults, we have a responsibility to provide the necessary support and guidance to ensure that children develop well during this period. By understanding how vital early developmental foundations are in shaping their character and mindset, we can play an active role in helping them grow and develop into strong and critical-thinking individuals.

In this stage of development, children aged 9 to 12 years experience tremendous physical growth. This includes a significant increase in body size, increased movement agility, increased speed, improved body coordination and the development of better body balance. It is important to remember that physical activity plays a crucial role in optimising the development of these skills and maintaining healthy behaviours throughout life. Physical activity helps children hone their motor skills, which are essential for a variety of daily activities, including playing, playing sports and living an active life. In addition, participating in purposeful and regular physical activity can help them build a strong foundation for their future physical and mental health.

Sports and other outdoor activities are an effective way to achieve this goal. Playing soccer, cycling, swimming, or even hiking are some examples of activities that are not only fun but also provide significant benefits for children's growth and development. However, it is crucial to ensure that these activities are age-appropriate and conducted within established safe limits. By encouraging children to participate in age-appropriate physical activities, we can help them develop a healthy foundation for a better and more active life in the future. This not only has a positive impact on their physical development but also on their mental and social development, as well as on healthy behaviours throughout life.

The results of this study indicate that the ability of physical activity in students in grades IV, V, and VI of Ngupasan State Elementary School, Yogyakarta City, is dominantly classified in the very low category for male students and the low category for female students. From the results of descriptive analysis of research data at Ngupasan State Elementary School, Yogyakarta City obtained results, as many as 13

male students with 36% results while 13 female students with 30% results were in the very low category. Meanwhile, there are 12 male students with 33% results and 17 female students with 39% results in the low category. A total of 7 male students, with 19% results and 13 female students with 30% results are in the medium category. In the high category, as many as 0 male students with 0% results and 0 female students with 0% results. This shows the need for more attention in encouraging them to participate in physical activity actively. Four male students with a result of 11% while one female student with a result of 2% was in the very high category.

According to Nurhasan (2005), the condition of physical fitness and physical activity is generally influenced by two main factors, namely internal factors and external factors. Internal factors refer to things that are intrinsically present in a person's body and are constant, such as genetic factors, age, and gender. On the other hand, external factors include various external aspects that can affect a person's fitness condition, such as physical activity, nutritional status, general health condition, haemoglobin level in the blood, adequate sleep patterns, and smoking habits. In addition, physical fitness is also influenced by the activities carried out by students in the school environment.

However, if we look at the current situation, we still find students who have a very low level of physical fitness. In dealing with this problem, there are solutions that can be implemented, namely by increasing daily physical activity. One example is to promote walking to school, which can actually be done almost every day. This step aims to maintain and improve physical fitness, as well as establish a healthy lifestyle by eating nutritious food. It is important to understand that students who have an ideal body weight or are within a healthy weight range will find it easier to take in the oxygen needed by the body. This gives them the ability to deliver optimal results in various aspects, including physical health, mental health, and social interaction.

This includes an understanding of the anatomy, physiology and psychology that underpin good health, as well as the ability to face life's challenges with strong confidence. Conversely, students who are overweight or even obese will face difficulties in taking in sufficient oxygen. This can result in a lack of ability to deliver optimal results, a lack of self-confidence, and limitations in facing various life challenges. Gender differences between men and women also affect the results of movement or physical activity carried out not only in adults but also in children.

But for the level of gender differences in physical activity itself at the age of 9-12 years, girls can be more active than the next age and not much different from boys. Basically, gender differences are included in the internal factors of students, but there are also other factors, such as genetics, age and external factors, that affect physical activity and the environment. In addition to optimising physical fitness, we are reminded to integrate physical activity into our daily routine. By exercising regularly, getting adequate rest, and maintaining a balanced diet, we can achieve a good level of fitness. This allows us to go about our daily activities without feeling excessive fatigue, as well as improving our overall quality of life.

## 5 Conclusion

The mindset and character of children in the developmental stage are greatly influenced by the learning experiences and activities they experience from an early age. This critical period, even before entering elementary school, plays a vital role in shaping their personality and mindset. At 9-12 years old, which corresponds to grades 4 to 6, children's development is often rapid and significant, including rapid physical growth. Physical activity plays an essential and critical role in optimising children's motor development and physical health. Through purposeful physical activity, they can build a strong foundation for future physical and mental health.

In addition, the results of research at SD Negeri Ngupasan Yogyakarta City showed that most male students had deficient levels of physical activity while female students had low levels of physical activity. These differences are influenced by internal factors such as genetics, age, and gender, as well as external factors such as physical activity and environment. It is crucial to involve all parties, including schools, teachers, parents, and students, in creating an environment that supports and leads to an active lifestyle. In order to improve students' physical and mental well-being, it is necessary to understand the importance of physical activity, a balanced diet, and adequate rest. Thus, students can achieve good fitness, gain energy for daily activities, and improve overall quality of life.

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