

## ORIGINAL ARTICLE

# Physical Fitness and Attention Level of Elementary School Students

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### ABSTRACT

**Introduction:** Physical fitness is an essential aspect of achieving a good fitness level. Someone who has good physical fitness will have a high degree of health. The research that physical fitness and level attention of elementary school students. **Methods:** The research method used a quantitative correlational method. The total population was 20 students, and all of them were used as research samples (total sampling). The instrument was a physical fitness test and attention questionnaire. **Results:** Based on data analysis, physical fitness correlated to the level of student attention. When students have good physical fitness, attention to teacher instructions is responded to more quickly. **Conclusion:** This study concludes that there is a relationship between physical fitness and the level of attention based on the results of testing the significance of the correlation coefficient of physical fitness student attention level.

**Keywords:** Physical, Attention, Elementary school students

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### INTRODUCTION

Physical fitness that the ability to carry out in daily activities without feeling excessive fatigue and still have reserves of energy to fill spare time and activities. Meanwhile, attention is the conscious processing of a small amount of information from a large amount of information available. Information is obtained from sensation, memory, and other cognitive processes. Thus, physical fitness has a relationship with the attention level of elementary. Preschool age is a period at which children experience many changes both physically and psychologically (1).

The Association for Sport and Physical Education explains that the ultimate goal of quality physical education is to guide and help students acquire the knowledge, skills, and attitudes to be physically active for life (2). Further, Whether physical education is to hold a valued and respected position in education and continue to make a significant and distinctive contribution to children

and schools (2). Good physical fitness in children and adolescents is an important indicator of health maintenance outcomes and processes and is intended as an integrated measure of cardiovascular fitness, muscular endurance, flexibility and body composition (2). Efficient and successful adaptation for children in school depends on their readiness to follow systematic learning and is related to executive functions (3). Furthermore, he explained that Visuospatial awareness is essential for many vital activities to active and independent living (4). This means that visuospatial attention plays a central role in carrying out various essential activities for active and independent life. In this case, psychology ability refers to a person's spacing to identify visual and spatial relationships between objects. This means that psychology's ability is measured in terms of imagining objects, making global shapes by looking for small components, or understanding the differences and similarities between objects.

Children's attention and attention are the basis of most of the cognitive and neuropsychological functions of our way of life (5). This means that attention to children is the basis of most cognitive and neuropsychological functioning in lifestyle. This will be an essential part of life, and good attention to children will impact cognitive

and psychological development that continues to develop and become a habit for the child. A cognitive function is involved in the activation and selection, distribution, and maintenance of psychological activity (6). Attention is the amount of awareness that accompanies an activity that is carried out. Given the limited capacity to process competing options, attention mechanisms select, modulate, and focus on the most relevant information for behaviour (8). The importance of this complex system and the lack of current teaching methods to support it have been the focus of a growing number of scholars over the last decade; You will explore different systems and theories of how students can respond to increasingly complex, technology-based, and increasingly sophisticated systems (7).

To be physically active and exercise, children need to master basic motor skills (FMS), such as running, jumping, kicking, catching, and throwing. Basic motor skills are often less motivated to participate in physical activities with their peers, resulting in decreased physical fitness (8). However, its activity can positively impact several factors such as affective, cognitive, psychomotor, and health abilities. The benefits of physical activity appear to have a unique expression in children because it is known that growth is associated with functional changes that can affect daily life activities. Facts in the field of attention are still lacking; many students ignore the teacher, so they do not understand what the teacher says. One of the factors is the physical fitness of students in poor condition. This, of course, must be improved by increasing student attention. The purpose was to see a relationship between physical fitness and the attention level of elementary school students. The hypothesis proposed by the researchers is that physical activity has a relationship with students' attention levels.

## MATERIALS AND METHODS

The objective of this research is to determine the correlation between physical fitness and student attention level. The researcher selected a valid research method following the object studied using quantitative methods with the correlational design. Twenty elementary school students were chosen as the participants of this study. The average age of students is 9-11 years, and most of them lived in suburban areas. The sample was selected based on the students who have low attention during the teaching and learning process, such as daydreaming a lot, being less active, and being less attentive in learning. In this study, the data were collected using physical fitness instruments and tests. The most commonly used measuring instrument for a child's physical condition is the Indonesian Physical Fitness Test. This evaluation tool is widely used as an instrument for researchers, both students and other sports academics (9). The types of tests used by the author are the types of physical fitness tests for children aged 10-12 years, including running

40 meters, hanging elbow bend, lying down, sitting 30 seconds, jumping straight, and running 600 meters.

In this case the concentration level is measured using the Grid Concentration Test, which is an adopted test taken from Harris, Dorothy V. & Harris, Bette L. (12), the students are in the room with their respective seats and are allowed to see the coloured picture by the examiner for 3 minutes to remember where the colour is in its position. Then the students are given the same picture, but the picture is still plain without colour. After the whistle sounds, students have been invited to colour the picture for 3 minutes

A score is assigned to each colour. There are ten colours, and each colour has a value of 10. If the colour of the student's picture matches the image's colour, the value is 100.

## ETHICAL CLEARANCE

This research was approved by the Research Ethics Committee, Faculty of Teacher Training and Education, Majalengka University No. F.065/FKIP-UNMA/VIII/2020

## RESULT

The hypothesis in this study is to calculate the correlation coefficient, which aims to find the relationship between one variable and another. The magnitude of the relationship between these variables is stated by the correlation coefficient (oxy).

Based on the results (Table I) of data analysis, for the physical fitness test of the total sample that has a good level of physical fitness, there are 9 people while the remaining 11 people are in sufficient condition. Then for the attention test of 20 samples, only one person has a very good level of attention and 4 people who have a very good level of attention.

Based on the results of data analysis for the correlation test, the value obtained is 0.8368, which indicates that physical fitness has a robust relationship with attention level. This is by the hypothesis proposed by the researcher, namely, physical fitness has a relationship with attention. However, other variables may also have a relationship with attention. Then the variables can be used as material for other researchers to study.

The contribution of physical fitness is 70.02%, which means that physical fitness plays an essential role in increasing students' attention levels. This is because when the student's physical condition is in good shape, the student's attention level is high. Physical fitness is a condition to carry out daily tasks with enthusiasm, without excessive fatigue, and total energy to enjoy activities. It is the readiness to carry out the tasks, including getting some knowledge every day.

**Table I: Result of Physical fitness measurement data and attention tests**

Physical Fitness Test			Attention Test		
Score	the number of students	Information	Score	the number of students	Information
14	4	Mode	60	6	Less
15	2	rate Mode	70	9	Moderate
16	5	rate Mode	80	4	Good
17	7	rate Good	90	1	Very Good
18	2	Good			
Physical Fitness			Attention		
Average		16.05			67
Standard deviation		1.31			8.97
Mean				16.05	
The correlation coefficient (r)				0.8368	
Count table				6.47	
				2.88	
Informance				Significance	

## DISCUSSION

Based on the results of data processing and analysis, the value obtained is in accordance with the purpose of this study, namely wanting to know the relationship between physical fitness and student attention while studying. Based on the results of data processing and analysis, the students' physical fitness scores are still in the sufficient category so that it has an impact on the level of attention that is sufficient as well.

In accordance with the purpose of this study, namely wanting to know the relationship between physical fitness and student attention while studying, it is clear that the physical fitness factor contributes to attention. If the condition of physical fitness is low, the level of attention of students will be affected, meaning that attention can increase if the condition of the body is healthy and fit.

From the results of data analysis shows that physical fitness has a strong relationship with the level of attention. Because every body that has a good and healthy fitness condition certainly has an impact on the concentration or attention of students while studying. Instructions from the teacher will be immediately responded to quickly because attention, mind, heart and movement blend well.

in accordance with what is in the Qur'an Surah Al-Infithar verse 7: "Who created you then perfected your activities and made your (body composition) balanced." This means that physical fitness is what provides balance in activities, so that the level of attention will be influenced by the condition of physical fitness..

The exercise of one's specific cognitive perceptions can affect learning and mental performance. However, research into the relationship between physical activity and cognition in children mainly focuses on the effects of mechanical skills. The effects of types of exercise on children's functional skills are expected to expand in the future. Therefore, a significant scientific challenge is designing programs or forms of exercise capable of mobilizing some of the mechanisms underlying the effects of physical activity on the brain and cognition. Physical activity can be attributed to an increased ability to suppress foreign neural activity to facilitate attention processing, resulting in shorter reaction times for stimulus discrimination tasks with low perceptual demands. Because cardiorespiratory fitness is interrelated with improving the health of neural networks, which is essential for the attention process (13).

Physical fitness is measured by performing movements and elements of motor behavior are taken into account (11). Fitness is very important in explaining the relationship between physical activity and cognitive functioning (13). Previous, Several research findings show that the cognitive development of children and adolescents is influenced by factors related to health and physical fitness (6).

Previous research stated that better attention and concentration and physical conditioning could help increase reaction times in children and adolescents. This can increase the efficiency of tasks essential for personal and social growth in children and adolescents (6). Physical activity and various cognitive abilities are Vivacious, such as memory, executive functioning, attention, language processing, and processing speed. It has been revealed at these ages (12).

Another study found that there was a positive relationship between physical activity, fitness, and HRQOL. The results showed that physical fitness and physical activity (self-reported physical activity and steps/minute) were significantly associated with HRQOL physical and mental functioning, extending the current study in the adult population (2). Another study found no effect of environmental factors and physical activity on participants' emotions and attention. In contrast to the two general studies (7), the present study did not find that participants walking or jogging in the natural environment experienced more significant positive effects on emotions and attention than walking or jogging in the built environment nor the exercise with lower intensity (walking: 3 METs) had more significant benefits for emotions or attention than that with higher intensity (jogging: 4.5 METs) in the natural environment (13). Other research results showed a positive correlation and a significant contribution between physical fitness and concentration ability in the highlands (16).

These findings encourage researchers and others to emphasize the importance of providing a meaningful learning context where students can relate their physical experiences to related knowledge. Most of the learning content in Physical Education deals with students'

physical experiences (14).

Lack of concentration can cause a child's learning achievement to decline. When that happens, many parents ask their children to study harder and register their children for various lessons. However, by suppressing children for a certain time with tutoring, it is not effective in increasing their learning achievement again. So that by inviting children to be active with sports because with regular physical activity they will experience an increase in academic performance, more concentration and psycho-social maturity.

## CONCLUSION

Considering the description that has been put forward in the processing of data analysis regarding the correlation of physical fitness with students' attention levels, it is concluded that there is a relationship between physical fitness and attention level, which is based on the results of testing the significance of the correlation coefficient of physical fitness with students' attention levels.

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