

# The Effect of Brain Jogging Exercise on The Attention Ability of Students in Class VIII of SMP Negeri 9 Bandung

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## ***The Effect of Brain Jogging Exercise on The Attention Ability of Students in Class VIII of SMP Negeri 9 Bandung***

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### **Abstract**

The purpose of this study was to determine the effect of brain jogging exercises on cognitive abilities, especially memory and attention abilities. The method used in this research is the pre-experimental method with a one group pretest-posttest design. The sampling technique used in this study is the cluster random sampling technique. The sample in this study were 29 students of Class VIII 8 of SMP Negeri 9 Bandung. The instrument used in this study was the Concentration Grid Test to measure students' attentional abilities. The results of the analysis of data processing showed that there was an effect of brain jogging exercises on attentional abilities ( $t=5.215$   $p=.000$ ). The conclusions in the study showed that there was a significant effect of brain jogging exercises on the attention abilities of Grade VIII students of SMPN 9 Bandung

**Keywords:** Brain Jogging, Attention, Physical Activity

### **INTRODUCTION**

Education is one of the important things in creating the development of a prosperous nation, with education students can improve their learning abilities from an early age (Mu'minah, 2020). Learning abilities include academic abilities, the ability to understand experiences from the environment, and the ability to benefit from experience (Larasati et al., 2017). The learning process must be accessible to every student (Sholehudin & Kurnia, 2022) to improve cognitive abilities. Basically the cognitive abilities of each individual must be different. The ability of students to understand and capture the material conveyed by the teacher will also vary (Rosa, 2017). So it takes good handling of the various components (Nur et al., 2020)

Cognitive ability is a process of thinking, namely the ability of individuals to connect, assess and consider an event or events (Ramaikis Jawati & Concentration, 2013). Cognitive abilities are oriented towards thinking skills which include intellectual abilities (Widianingtiyas et al., 2015). In the process of increasing cognitive abilities there are many methods and variations in the learning process that aim to improve students' cognitive abilities (Insyasiska et al., n.d.). Cognitive domain based on its function according

to Behavioral Neurologi cited in (Lisnaini, 2008) ie Attention (attention), Perception, Language (language), Memory, Visuospatial, Executive Function (Executive function). However, during school time, memory and attention are the cognitive domains that have the greatest contribution to students' academic abilities (Niedereret al., 2008; Berk, 2008).

Attention is the ability to pay attention to one stimulus by being able to ignore other irrelevant stimuli (Zulherma, 2019). Attention is one of the most important things in learning activities. Without attention and focus, the process of transferring information or material presented cannot be received optimally. Attention is a process in which a person selects and responds to so many stimuli received from the surrounding environment (Email, n.d.). Many different attentional processes work together to process information. These processes include alertness or arousal, namely the ability to select various stimuli, the ability to reach attention, transfer attention and process information. Attention is thought to be a continuous process and not an isolated process involving intensive concentration and the ability to inhibit disturbing things. mind and ability to shift the locus of attention according to external and internal needs (Nurjasmı & Sudarsono, 2013)

Concentration or organizing attention is needed in dealing with everyday problems (Mulyana et al., 2013), the ability to focus attention is an individual's ability to process information through the five senses, memory, and a limited amount of cognitive processes obtained from very large sources, concentration or attention as concentration of mind in a clear and sharp form on one of several simultaneous objects or from a series of thoughts. (Mukti & Wimbarti, 2020) In general, focus of attention has a relationship with memory in observing an object (Knowledge, 2012). Attention can be influenced by external stimuli which can cause the focus of students' attention to be shifted from teaching and learning activities. One form of stimulus that can affect attention is environmental temperature. Uncomfortable classroom temperature conditions can cause students to be unable to focus attention. (Panas et al., n.d.) because attention has an important role in learning, with attention it is easier for children to understand the information they receive (Maemunah, 2017).

Physical activity, namely that children generally like to play, like to move, like to work in groups, and like to practice hands-on (Powerpoint-Based Science Learning Media at Irfan & Ristiana Elementary School, 2019), Physical activity can be interpreted as any body movement produced by the muscles skeletal and produces significant energy expenditure and is divided into light, moderate and severe groups. Each activity requires different energy depending on the duration of intensity and muscle work (Syah & Utami, 2021). Physical activity will also have an impact on the physiology of the body, namely an

increase in blood flow to the brain (Badu et al., 2021). it is important for students to maintain sleep quality and do enough physical activity, so as to improve memory and learning concentration while participating in the learning process to obtain maximum learning outcomes (Sulistia et al., 2019), from his description above that researchers are interested in conducting research about the effect of brain jogging exercises on attentional abilities in class VIII students at SMPN 9 Bandung.

### **METHOD**

<sup>4</sup>The method used in this study is the experimental method. This method is validation (test) that is testing the effect of one or more variables on other variables. Variables that give effect are grouped as independent variables (Independent variable) and the affected variable is grouped as the dependent variable (dependent variable). Research using one group pretest – posttest design to know the benefits of training brain jogging on cognitive abilities (memory and attention) in class VIII students of SMP Negeri 9 Bandung.

This study consists of two independent variables and one dependent variable, with the following details: independent variable (independent) is exercise Brain Jogging. Dependent variable (dependent) is the ability of attention. The research was conducted at Bandung 9 Public Middle School which was held from March to April 2015. The population in this study were all Grade VIII students of Bandung 9 Middle School totaling 440 students aged 14-15 years. Sampling is done by using the technique cluster random sampling so that class VIII 8 SMP Negeri 9 Bandung is obtained as an experimental class.

<sup>17</sup>The research instrument used to carry out the attention test uses concentration grid test. The analysis technique used in this study is paired sample T-test used to find out the difference in attentional ability scores before and after being given training treatment brain jogging.

### **RESULTS AND DISCUSSION**

#### **Results**

<sup>4</sup>Data from research hypothesis testing results can be seen in the table below.

**Table 1. Attentional Ability Hypothesis Test**

		Paired Differences				t	df	Say. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
					Lower Upper			
Pair 1	Post's - Pretest	6,276	6,480	1,203	3,811 8,741	5,215	28	,000

Based on Table 2 it can be seen that there was an increase in the scores of students' attention abilities before and after being given treatmentbrain jogging by testing the hypothesispaired sample t-test, an increase is obtained with a value of  $p = .000$  where  $p < 0.05$ , this means that  $H_0$  is accepted so it can be concluded that there is an effect of trainingbrain jogging on attentional abilities.

The results of testing the hypothesis in Table 2 show that there is an increase in the attention scores of students after being given treatmentbrain jogging, it can be concluded that there is a training effect brain jogging on cognitive abilities, especially attentional abilities.

#### Discussion

Efforts to use trainingbrain jogging in the learning process at this school to improve cognitive abilities, especially attentional abilities. in this study the researchers found positive results on increasing cognitive abilities, especially attentional abilities. Based on the research and data processing carried out, it proves that there is an effect of trainingbrain jogging on the attention ability of class VIII students of SMPN 9 Bandung. Some of the things that affect the increase in attention to these students one of them because students actively and regularly attend trainingbrain jogging. Brain jogging can also be beneficial for health with a customized program because brain jogging or better known askinetic life originally designed to train coordination so that brain jogging can also improve skill abilities (Komarudin & Mulyana, 2016). Not only improving Health and Brain jogging skills can also increase the motivation of athletes in both team and individual sports. And also there is a significant effect on the ability to concentrate after doing brain jogging exercises. (Komarudin, 2017)

Brain jogging training really avoids monotonous and boring forms of exercise, therefore brain jogging exercises can improve cognitive abilities, especially attention. This increase may be related to cognitive functions including attention, processing, storage and retrieval. In addition to the increased attentional abilities that occur in students This is

because students get proper training to stimulate the brain so that it affects cognitive abilities, especially attention. Not only that, with brain jogging activities, students experience an increase in beta and cognitive waves. There is also other research that says that brain jogging can improve cognitive and psychological abilities (Hendrayana et al., 2020). Cognitive factors, especially attention, have an important role in the success of students in carrying out the learning process. Cognitive abilities, especially attention, will have a positive impact on student learning outcomes.

## CONCLUSION

Based on the results of data analysis, there is an effect of brain jogging exercises on the attention abilities of Bandung 9 Public Middle School students. Brain jogging can improve memory ability, tennis skills and motivation. Because brain jogging is an exercise that supports mentality through physical activity

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