

Youth Brain Influence Improves Children's Learning Concentration In Tosaren Elementary 4 Kediri City

Marten Ndapajaki^{1*}, Aprin Rusmawati², Alfian Fawzi²

Institut Ilmu Kesehatan STRADA Indonesia

*Corresponding author: martenndapajaki@gmail.com

ABSTRACT

Giving *Brain Gym* to children is an effective step to facilitate learning activities and adjustments to daily activities in improving views on the material explained by the teacher and can help optimize brain function. The purpose of this study was to determine the effect of *Brain Gym* in Improving Learning Concentration in Children at SD N Tosaren 4, Kediri City. This research design uses a quasi-experimental design (*Quasi Experiment Design*), namely the *Non-Equivalent Control Group design* . The sampling technique is *total sampling*. The sample in this study were all 5th grade students of SDN Tosaren 4, Kediri City, totaling 30 children. The independent variable to be studied is *Brain Gym* and the dependent variable is learning concentration. The statistical test used is *Wilcoxon*. The results of the study showed that learning concentration before being given brain gymnastics treatment (*Brain Gym*) was lacking, namely 19 children (63%) out of a total of 30 children, while learning concentration after being given brain gymnastics treatment (*Brain Gym*) was good, namely 25 children (83%) out of a total of 30 children. The results of the statistical test showed the *Asymp. Sig. value. (2-tailed)* before and after is 0.000 so that H1 is accepted meaning there is an effect of *Brain Gym stimulation* on the concentration of learning of children of SDN Tosaren 4 Kediri City. From the results of the study, *Brain Gym* is very helpful for children in increasing their concentration to learn. Brain gymnastics can be given in the classroom when children start to get bored with the long delivery of material.

Keywords : Brain Gym, Learning Concentration, Elementary School Children

ABSTRACT

The provision of *Brain Gym* in children is an effective step to facilitate learning activities and adjustments to daily activities in increasing views on the material explained by the teacher and can help optimize the function of the brain. The purpose of this study was to determine the effect of *Brain Gym* in Increasing the Concentration of Learning in Children in Elementary Tosaren 4, Kediri City. This research design uses a quasi-experimental design (*Quasi Experiment Design*) which is a design of *Non Equivalent Control Group*. The sampling technique is *total sampling*. The sample in this study were all grade 5 students at SDN Tosaren 4 Kediri City as many as 30 children. The independent variable that will be examined is *Brain Gym* and the dependent variable is the concentration of learning. The statistical test used was *Wilcoxon*. The results of the study showed that the concentration of learning before brain exercise was lacking was 19 children (63%) out of a total of 30 children, while the concentration of learning after being given brain gym treatment (*Brain Gym*) was good as many as 25 children (83%) of a total of 30 children . From the results of the statistical test shows the value of *Asymp. Sig. (2-tailed)* before and after that is 0.000 so that H1 is accepted means that there is an effect of *Brain Gym stimulation* on the concentration of learning at Tosaren 4 Elementary School in Kediri City. From the results of the research *Brain Gym* is very helpful for children in increasing concentration for learning.



Giving brain exercises can be done in the classroom when the child starts getting bored with the old material delivered.

Keywords: Brain Gym, Learning Concentration, Elementary School Children

INTRODUCTION

The development of the educational era has become very important to prepare the next generation who will hopefully be able to bring progress of the nation. Education is attempted to equip the next generation in facing future challenges. The development of technology that increasingly sophisticated with the increasing level of human needs, it is necessary balanced with the increasingly rapid development of education, forcing the child's brain has to work very hard, then there will be an imbalance in the brain between the brain and the brain. right and left brain, can also cause fatigue in the brain so that concentration in children's learning declines.

Slameto (2010) stated that concentration in learning is the focus of attention on the subject by setting aside all things that are not related to the lesson. Therefore, concentration is one aspect that supports children to achieve good performance and if this concentration is reduced, then following lessons in class or studying personally will be disrupted. According to Sugiyanto (Sumadi, 2017), concentration is the ability to focus thinking or mental ability in sorting out unnecessary information and focusing only on the information needed. Concentration is one factor that is believed to be able to bring success to students in achieving learning goals. Through concentration, everything can be recorded as well as possible in the brain's memory and can then be easily released when needed (Sumadi, 2017). The problem is that children's concentration in learning can change and even tend to decrease along with the longer study time. This will affect the success of learning which is not optimal. It is proven that in every class there are always children whose scores are below the KKM (Minimum Completion Criteria) (score 75).

The results of a preliminary study at SDN Tosaren IV, Kediri City on January 29, 2018 obtained data from class 5 as many as 30 students in mathematics subjects were still lacking. The scores obtained by students have not met the Minimum Completion Criteria (KKM) that must be achieved by students, namely 75. There are students who must take remedial courses to achieve this score. Students who get scores below KKM are 12 children (40%), equal to KKM or average score 8 children (27%) and those who are more than KKM 10 children (33 %). Based on interviews with 10 students, 7 students said they felt bored watching the teacher teach for hours, especially if the subject was calculating, in the last hour they often daydreamed, played and chatted with friends in class. There were also 3 students who said they tried to understand what the teacher gave, were always ready to argue about the subject being taught.

Many factors influence children's concentration in learning. According to Veenstra (in Sumadi, 2017) said that factors that can influence learning concentration include: age factors, physical factors, knowledge and experience factors, environmental factors.

The various characters of children require teachers to be able to determine the appropriate techniques, media and learning methods. One interesting intervention is carried out so that students are motivated to learn and have good concentration during learning, namely brain gymnastics. This method has been widely developed in various countries and aims to improve various *outcomes* such as attention, memory and academic ability (Watson & Kelso, 2014).

According to Dennison (2009) Brain gymnastics aims to activate the potential of the right and left *hemispheres* of the brain , so that in the end there is integration or cooperation between the two. In general, the

left hemisphere is used for logical and rational thinking, analyzing, speaking, orienting to time and detailed things, and controlling the body, eyes and right ear. While the right hemisphere is used for intuitive things, feeling, playing music, dancing, being creative, and controlling the body, eyes and left ear. These two *hemispheres* are "connected" by *the corpus callosum*, which is a complex nerve node where information transmission occurs between the hemispheres of the brain. If the information circuits from both hemispheres of the brain cross quickly, then the child's learning ability can be "awakened". To read fluently, write correctly, listen and think at the same time, we must be able to "cross the center line" that connects the left and right brain. Light movements of brain gymnastics done through hand and foot exercises can provide stimulation to the brain. It is this stimulus that can improve cognitive abilities such as alertness, concentration, memory, problem solving and creativity.

Brain Gym can be done to refresh students' physical and mental health after undergoing a learning process that requires high concentration which results in brain fatigue. By concentrating, everything can be recorded as well as possible in the brain's memory and then easily released when needed. The purpose of this study was to determine the effect of *brain gym* in improving learning concentration in children at SDN Tosaren 4 Kediri City.

METHODS

This research design uses a quasi-experimental design (*Quasi Experiment Design*) namely the *Non Equivalent Control Group design*. The sampling technique is *total sampling*. The sample in this study were all 5th grade students of SDN Tosaren 4 Kediri City, totaling 30 children. The independent variable to be studied is *Brain Gym* and the dependent variable is learning concentration. The statistical test used is *Wilcoxon*.

RESULT

Subject Characteristics

Table 1. Characteristics of respondents in this study include age, gender, learning concentration before and after brain gym treatment (*Brain Gym*).

No	Characteristics	ΣN	Σ%
1	Age (yrs)		
	10	13	44
	11	10	33
	12	7	23
2	Gender		
	Man	17	57
	Woman	13	43
3	Concentration of learning (pre)		
	Enough	11	37
	Not enough	19	63
4	Study concentration (post)		
	Good	25	83
	Enough	5	17
	Total	30	100

DATA ANALYSIS

Table 2. Analyzing the effect of *Brain Gym stimulation* on the learning concentration of students at Tosaren 4 Elementary School, Kediri City (*August 28 – September 03, 2018*)

Variables	<i>Asymp. Sig. (2-tailed)</i> values before and after
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Concentration on studying	0,000
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Based on the results of the Wilcoxon statistical test, it can be seen that the *Asymp. Sig. (2-tailed)* value before and after is 0.000 so that H1 is accepted, which means that there is an effect of *Brain Gym* stimulation on the concentration of learning of children at Tosaren 4 Elementary School, Kediri City.

DISCUSSION

Concentration on Learning Before *Brain Gym* is Given to Children at SD N Tosaren 4, Kediri City.

The results of the study showed that some of the 5th grade children at Tosaren 4 Elementary School, Kediri City, had poor concentration in learning before being given brain gym treatment (*Brain Gym*), namely 19 children (63%) out of a total of 30 children.

This study revealed that before being given brain gymnastics exercises, many fifth grade students experienced a decrease in concentration. This is a learning situation that requires calm, comfort, and attention from someone in understanding the contents of the lesson being faced so that students become bored in class, often daydream, students are busy playing when the teacher explains on the board, students do not respond and understand the lesson material given, are always inactive in asking questions and giving opinions about the material being studied, lack of input to answer well and correctly to every question asked.

Baharudin and Esa Nur Wahyuni (2010) said that concentration is the ability to focus thoughts or mental abilities in sorting out unnecessary information and focusing only on the information needed . If students have been able to increase the intensity of their ability to concentrate on learning, their ability to respond and interpret learning materials will be more optimal. Students will be more challenged to find out the solution to the most difficult problems and always want to learn until they fully understand the learning materials.

There are other factors that interfere with children's concentration in learning according to Thursan Hakim (2012), a person's concentration in learning is influenced by two factors, namely internal factors and external factors. Internal factors include 1) physical factors consisting of: a) prime physical condition and free from germs and diseases, b) enough rest and sleep, c) consuming food that meets balanced nutritional standards, d) the five senses can function properly, and e) not suffering from brain and nerve disorders. The second is the spiritual factor consisting of: a) a fairly calm living condition, b) having a patient and consistent nature, c) being obedient in worship as a supporting element of calmness, d) not having serious problems and, e) having a strong will and not giving up easily.

The researcher concluded that the fifth grade students had poor concentration in learning, influenced by the individual's condition and by internal and external factors that influenced the concentration process in the lesson. Examples of internal factors such as chatting with friends, being sleepy during the learning process, disturbing friends who were focusing on learning, there were also who always go in and out to get permission to leave the classroom and external factors that can affect concentration, namely the environment which is close to the highway, thus disrupting the process of concentrating on the lesson delivered by the teacher.

Concentration in Learning After *Brain Gym* is Given to Children at SD N Tosaren 4, Kediri City.

The results of the study showed that some of the 5th grade children at SD N Tosaren 4, Kediri City had good concentration in learning after being given brain gymnastics treatment (*Brain Gym*), namely 25 children (83%) out of a total of 30 children.

The concentration results after being given brain gymnastics treatment, the concentration level is better than before being given the treatment so that children understand better what the teacher is saying during the teaching process.

The results of the study can be said that the influence of *Brain Gym* is able to increase concentration in learning, especially in children aged 10 years who are more dominant in concentrating when the teacher teaches in class after being given brain gymnastics.

Children have a unique way of thinking different from adults, then the way A child's thinking can develop according to his age. Piaget reiterated (Sugiono, 2013) that 'the development of the ability to concentrate has four aspects, namely: maturity experience, social transmission, equilibration. Maturity of thinking is stated when all the nervous system is already develop and reach a stage its development so that it is ready used and working well.

The success of children in focusing on learning can be influenced by providing stimulating brain gym movements that improve memory. *Brain gym* is one easy way to help children in managing their concentration in learning. Brain gymnastics can done to refresh the child's body and mind after undergoing learning process that results in fatigue and tension in brain so that it will reduce children's concentration in learning (Dennison, 2012).

Brain Gym is very necessary for children who have difficulty learning, trying too hard so that stress occurs in the brain. The brain's integration mechanism weakens so that certain parts of the brain are less functional. In addition, it also increases reflexes because stress caused by information received in the back of the brain is difficult to express through the front of the brain, so that children feel less capable. *Brain Gym* is needed for children who feel less capable and less successful resulting in less enthusiasm for learning or working, so that achievement is static or declining. So with *Brain Gym* , the mind will be clearer, relationships between people will be more relaxed and happy, more enthusiastic in concentrating, children will be creative and efficient as well as healthier and learning achievement will increase.

Influence *Brain Gym* Stimulation on Children's Learning Concentration at SD N Tosaren 4, Kediri City.

The results of the Wilcoxon statistical test show that the *Asymp. Sig. (2-tailed) value* before and after is 0.000 so that H1 is accepted, which means that there is an effect of *Brain Gym* stimulation on the learning concentration of students at SDN Tosaren 4, Kediri City.

The results can be interpreted that there is a significant difference between the scores of the level of learning concentration in the experimental group between before receiving treatment and after receiving treatment in the form of *Brain Gym* . Based on the results of the statistical tests above, it shows that *Brain Gym* has an effect on learning concentration. The success of a learning process is influenced by the individual's ability to focus on the object being studied.

The brain is a part of the body that functions as the control center for body organs. The brain is always related to a person's intelligence. The brain also is the center of the mind control system and the body system that runs several functions simultaneously that can serve as a receiver and information processing, giving commands, carrying out tasks and storing information. *Brain Gym* with Edu-K training method or training and kinesis (movement) will use the whole brain through updating movement patterns certain to open previously closed parts of the brain.

Brain The previously closed brain gym will open and indicate that learning activities take place using the whole brain (Diana *et al* , 2017). Without realizing it, children can do *Brain Gym movements* , such as clapping, singing, and dancing. Because with these movements children move according to the coordination of the right and left hands. When clapping then the energy will flow to each fingertip and flow to to the brain. The essence of

brain gymnastics is movement, because movement is the key. for learning and is important for child development. *Brain Gym* must be done with regularity to get all the benefits. With regular practice, all brain disorders experienced by children when learning will be resolved. Therefore, before learning begins, it is recommended to carry out *Brain Gym*. to make children intelligent (Muhammad, 2011).

The importance of the role of concentration in learning requires students as subjects in the learning process to have good concentration skills. Learning will be effective if brain function can work optimally, while weakening brain function can disrupt learning activities. Weakening brain function can cause a decrease in students' concentration abilities, which has an impact on the inactivity of *the reticular formation* , *decreased endorphin* hormone production , and can result in the suboptimal three dimensions of the brain, namely the lateral dimension, focusing, and centering. Weakening brain function can be overcome through brain gymnastics exercises or *Brain Gym* which include *the owl movement*, *arm activation*, *foot flex* , *calf pump*, *gravity glider* , *grounder*. In addition, students also do PACE movements, namely (*Positive*, *Active*, *Clear*, and *Energetic*) which aim to make students more prepared in carrying out learning activities.

CONCLUSION

1. Most of the 5th grade children at Tosaren 4 Elementary School, Kediri City, had poor concentration in learning before being given brain gym treatment (*Brain Gym*) , namely 19 children (63%) out of a total of 30 children.
2. Most of the 5th grade children at Tosaren 4 Elementary School, Kediri City, had good concentration in learning after being given brain gym treatment (*Brain Gym*) , namely 25 children (83%) out of a total of 30 children.
3. There is an influence of *Brain Gym* stimulation on the learning concentration of students of SD N Tosaren 4, Kediri City, with an *Asymp. Sig. (2-tailed)* value before and after of 0.000.

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