



THE USE OF BRAIN GYM IMPROVES EMOTIONAL INTELLIGENCE ABILITY OF ELEMENTARY SCHOOL STUDENTS

Yuliana Risa, Tri Sakti Widyaningsih*

Nurse Professional Study Program, Universitas Widya Husada Semarang, Jl. Subali Raya No.12, Krapyak, Semarang Barat, Semarang, Jawa Tengah 50146, Indonesia

*imoet.sakti@gmail.com

ABSTRACT

Emotional intelligence is a human ability to evaluate, manage, and control self-emotion or around people. The effort to improve children's emotional intelligence is not only through playing but giving practice techniques such as brain gym. Brain gym is a simple motion-based system that is fun, improves learning ability, processing of complete affection information, and fun. So, it can improve children's emotional intelligence. Purpose to know the use of brain gym improves emotional intelligence ability of elementary school students in Jragung Vilage Karangawen Sub-District Demak Regency. The case study used descriptive statistic technique. The instrument is brain gym observation sheet, pre-test and post-test of emotional intelligence questionnaire with X criteria ≥ 48 : High, $X \geq 24$: Low. The case study used 4 subjects and data presentation in narrative and table. The subject on third day, the average emotional intelligence of children before brain gym practice is 51, it is categorized as low and 53 is the highest. After giving Brain Gym practice, the highest value is 67, the lowest is 58. The result of the case study on the use of brain gym to improve the emotional intelligence ability of elementary school students in Jragung Village Karangawen Sub-District Demak regency is effective. It is for improvement in teaching and understanding theory about the basic concept of child care, about factors that influence emotional intelligence of children level, especially using brain gym. It is effective to improve the emotional intelligence of elementary school students.

Keywords: brain gym; children; emotional intelligence

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INTRODUCTION

Emotional intelligence is a person's ability to judge, manage and control his own emotions as well as those around him, and is the most important prerequisite for preparing children in the future, for emotional intelligence one will be able to succeed in the face of all kinds of challenges, including the challenge of academic success. If a child's level of emotional intelligence is low, children are often seen as irrational, cranky, overly critical, withdrawn, seemingly indifferent, and prone to difficulty expressing his annoyance and anger properly, being stubborn, socializing, being unable to trust others, being easily frustrated, being insensitive to environmental conditions, and giving up under pressure (cooper, c & sawaf, 2018).

Early childhood development was essential and would determine future qualities. According to the world health organization, 2020 reports that 5-25% of preschoolchildren suffer from minor brain dysfunction, including refined motor development disorders. Ri's department of health (2018) in widati (2019) is reported globally that children are suffering from emotional

disorders of 11-15%, behavioral disorders of 9.15%, anxiety of approximately 9% (coal ramadhan, 2020).

Emotional disorders are a condition where children's behavior and emotions differ significantly from that of other children of similar ages and backgrounds that can cause a decline in social interaction and relationships, self-care, and learning and behavior in the classroom. Unaddressed emotional breakdowns can have a negative impact on a child's development, especially on his maturing character, resulting in emotional disorders that can be high - risk behavior (khotimah, 2021). The negative view that society has of children's conduct leads to the difficulty of learning to socialize and relate to others. Children will also have difficulty studying because it is easy to concentrate on them. That's why children with emotional disorders often have below average academic scores. Causes of emotional mental disorder in general there are two factors: the child's own factor and its environmental social factor (subekti, n., & nurrahima, 2019).

An American study shows that 9,5%-142% of children from birth to age 5 in America suffer from social-emotional problems that negatively affect children (cooper, 2011). Other studies by (Chen, killeya-jones and vega, 2014) show 171% number for incidents of emotional disturbance in 5-year-olds in the United States. In Indonesia itself, a broad line of home health survey data analysis (SCRT, 2012) on the symptoms of 5-14 - year - old emotional disorders is 114 per 1000 children. Meanwhile the number of preschool children (5-6 years) in Indonesia in 2019 was found to be 4,89546 and to women 4,713,840 (mother, 2022). The prevalence of emotional disorders in preschool-age children is pretty high. The national institute of mental health (nimh) mentions that prevalency of emotional disorders in preschool - age children is about 10-15% in the research world according to Kilimanjaro mission of hope and outreach (kmho), 2019 in (subekti, n., & nurrahima, 2019). The 2018 report on the Indonesian riskesdas states that Indonesia's rate of emotional disorders is 9.6%. The rating is increasing by 6.0%. Central Java province itself has increased from 4.7% to 7.7% (subekti, n., & nurrahima, 2019).

That is why children should be focused more on emotional intelligence, one of the activities that can be used to optimize emotional intelligence in children is by leveraging children with exercise techniques, such as brain gym and penguin dance to reduce the risk of emotional disorders as they age. The brain gym is a simple exercise to facilitate study activities and adjustments to daily activities and can help optimize brain function (mother, 2022). In addition to increasing the emotional intelligence of the brain gym can also enhance learning, provide several benefits as suggested by (ayinosa, 2018), such as: less emotional stress and more clear mind, more relaxed and happy relationships, more language and memory learning increases, more creative and efficient, better health and learning and work increases (cooper, c & sawaf, 2018).

A study (P.E. dennison, 2017) states that the brain gym can influence physiologically the emotional intelligence of the centralized dimension (the bottom-brain) using pretesting experiments-posttest one group design, conducted on 15 children. Test analysis using tests using sample tests in pairs. Studies show that before brain gym is given 7 high levels of emotional intelligence (46.7%), and a low level of emotional intelligence (53.3%), after it is given the brain gym 13 respondents (86.7%) have a high level of emotional intelligence, 2 respondents (13.3%) have a low level of emotional intelligence. Test t sample results in pairs show $t = -10,001$ and value $p = 0,000$. It was concluded that the exercises of brain gyms can increase the emotional intelligence of preschoolers (4-5 years of age). According to the

statement (soetjiningis, 2018) in research (rofi 'ah et al., 2018) is the process of differentiating the cells of the body, the tissues, the organs, and the systems of the organs that each develop to carry out its function. In this regard it includes cognitive, language, motor, emotional, and behavior development resulting from environmental interaction (mother, 2022).

The brain gym is a popular commercial program marketed in more than 80 countries and is believed to provide much - needed stimulation for effective study because it is believed that it can expose previously covered or stunted parts of the brain and allow the study/work to continue using all the brain or whole brain. The brain gym is a fun simple movement based system, where easy physical activity is performed and used to enhance the ability to learn, process information, and respond to the conditions around us in a affective, compassionate, and pleasant way and thus is able to increase emotional intelligence in children (khotimah, 2021).

Another study by ribhka DKK (mother, 2022) entitled "brain gym and penguin dance were able to increase children's emotional intelligence" shows that the children's display of emotional intelligence prior to brain gym's mechanical interference category >45. Based on a preliminary study conducted June 4, 2022 by performing a live interview of some parents who have schoolchildren in the jragung village on a child's learning system and characteristics that refer to a child's emotional intelligence. Based on the results of the phenomenon, researchers compiled an application of the effects of the brain gym increasing the ability of the emotional intelligence of elementary school children in the village of jragung district district of brain gym.

METHOD

The kind of case studies are descriptive in the form of case studies. In the case study researchers use operational standards of procedure and pretest and posttest emotional intelligence observation sheets. Presentation of data in a tabel and narrative form. Subject number four. This case study was conducted on June 24-26, 2022. On the subject in the elementary school boy in the village of jragung Karangawen sub-district Demak Regency.

RESULTS

The results of pretest and posttest emotional intelligence

Table 1.

The results of the use of Brain Gym on subject case studies before and after the application of brain gym to enhance the emotional intelligence of elementary school Elementary School Students (n=4)

Name	Emotional intelligence			
	Pretest	Category	Posttest	Category
An. Attia	34	Low	36	Low
An. Amin	33	Low	34	Low
An. Novita	30	Low	33	Low
An. Naufal	28	Low	30	Low

Based on the results of the analysis of table 4.1 it is known that the average emotional intelligence of the child before the performance of the brain gym is 28 that is in low categories and 34 is the highest. After giving brain gym the highest marks are at 36 and the lowest of 30.

Table 2.

The results of the use of Brain Gym on subject case studies before and after the application of brain gym to enhance the emotional intelligence of elementary school Elementary School Students (n=4)

Name	Emotional intelligence			
	Pretest	Category	Posttest	Category
An. Attia	59	High	67	High
An. Amin	57	High	61	High
An. Novita	53	High	62	High
An. Naufal	51	High	58	High

Based on the results of the analysis of table 2 it is known that the average emotional intelligence of the child before the execution of brain gym is 39 in low category and 43 is the highest. After giving brain gym the highest score is at 54 and the lowest 42.

Table 3.

The results of the use of Brain Gym on subject case studies before and after the application of brain gym to enhance the emotional intelligence of elementary school Elementary School Students (n=4)

Name	Emotional intelligence			
	Pretest	Category	Posttest	Category
An. Attia	46	Low	54	High
An. Amin	47	Low	51	High
An. Novita	43	Low	48	High
An. Naufal	39	Low	42	Low

Based on the results of the analysis of table 3 it is known that the average emotional intelligence of the child before the execution of brain gym is 51 that is in low categories and 53 is the highest. After giving brain gym its highest marks are at 67 and its lowest 58.

Table 4.

Brain Gym Observational sheet recap

Name	Aspect	First day			Day two			Day three		
		1	2	3	1	2	3	1	2	3
An. Attia	Hooks Ups			√			√			√
	Cross Crawl		√				√			√
	Lazy 8 S	√				√				√
	Double		√			√				√
An. Amin	Hooks Ups			√			√			√
	Cross Crawl		√			√				√
	Lazy 8 S		√			√				√
	Double	√			√					√
An. Novita	Hooks Ups			√			√			√
	Cross Crawl		√				√			√
	Lazy 8 S	√				√			√	
	Double	√				√			√	
An. Naufal	Hooks Ups			√			√			√
	Cross Crawl	√			√			√		
	Lazy 8 S		√			√			√	
	Double	√			√			√		

Based on the analysis of table 4 it is known that the first day of the application of the brain gym 4 subjects can only do hooks ups well and properly, but for the other three movements such as cross crawl, lazy 8 s and double dooble almost all children have trouble doing their movements properly. The results from the chart above can be seen on the subject's second and third day each subject developed an increase in the exercise of the brain gym.

DISCUSSION

In the chapter a discussion of researchers describes the meaning of studies conducted on the application of brain gyms to increase the emotional intelligence of elementary school children in the village of jragung district district district in which this discussion includes a comparison between the results of researchers' research and previous research and theoretical concepts. The chapter will also explain the limits of the research that has been done. The results of the case study produced by 4 elementary school children in the village of jragung show that the results of the first day were largely incapable of doing the properly given brain gym movements like hooks ups, cross crawl (lazy 8s), lazy 8 sleep (double dooble) and double dooble (double dooble). The brain gym's movements are a touch that stimulates work and optimally functions the brain's ability to activate both right and left brains, thus creating a bridge between the right hemisphere and the left hemisphere. Brain gym can be used to help learners better prepare for lessons, improve concentration ranges, improve focus and memory, improve communication ability, control emotions and so on (nilla sariana. Ahmad, afiif. Umi, 2017).

The results of case studies on the second and third day each subject is enhanced in the practice of the brain gym movement both good and true, the exercise of the brain gym is affecting the level of emotional intelligence on elementary school children, where after being given the brain gym is an increased level of emotional intelligence on preschool-age children. This is affected by the motions of the brain gym designed with the purpose of facilitating both the right brain and the left brain to work in a balanced way, easing or relaxing the back of the brain and the frontal cortex and the reflective dimension of the brain gym also stimulate the system associated with the primary and large brain. So that the child who intervenes in the brain gym and his movements optimally will affect the workings of his brain especially at the level of emotional intelligence (mother, 2022). Research shows that the average level of emotional intelligence of preschool-age children after intervention is 47.27 with a deviation of 5.76 in high category. The lowest level of emotional intelligence is 39 and the highest of 59. After the performance of the brain gym it is known that most, as many as 8 people (72.72%) of children with high levels of emotional intelligence (widodo compliments, 2016).

Brain gym can be used to help learners better prepare for lessons, improve concentration ranges, improve focus and memory, improve communication ability, control emotions and so on. This exercise, therefore, is appropriate for a student, particularly in supporting his or her education at school. Brain gym is also very practical because it can be done anywhere, anyone, anytime, anywhere. In addition to the enhanced capacity of learning, the brain gym can offer several benefits as suggested by (ayinosa, 2018 in (mother, 2022) Emotional stress lessens and the mind clears, human relationships and learning or work environment more relaxed and happy, language and memory improve, people become more energized, more creative and efficient, people feel more healthy because stress is less and the performance of learning and work increases. Brain gym activities like the draw key help in restoring organization and emotional intelligence, then manage stress more effectively, and thus keep the hemisfer sererbral working. (P.E. dennison, 2017) whereas by (goleman, 2020) symptoms

of interference in children can be overcome by physical activity such as listening to music and playing. Physical activity can be achieved not only through games but also through brain gym. In this, the left brain that works the dominant

The results of the case study are also consistent with Sri Wahyuni et al (2017) after it was given the exercise brain gym high level of emotional intelligence for children increased from 46.7% to 86.7% but the lower level of intelligence dropped from 53.3% to 13.3%. The result of these frequency differences is that the exercises of brain gyms can be performed to lower children's level of emotional brightness. The brain gym can also physiologically influence a child's emotional intelligence - a centralized dimension related to emotional states. The child who routinely interacts with brain gym and his movements optimally will affect the workings of his brain especially at the level of emotional intelligence. Children begin to control their emotions or feelings like they are more conducive to social interaction, group cooperation, listening to counsel given, motivating themselves and following the orders given. The child who initially had low emotional intelligence after giving the treatment of brain gym will experience increased emotional intelligence. A child's adult success is due to a child's lack of emotional intelligence at 4-5 years of age. According to Goleman intellectual intelligence accounts only 20% for temporary success 80% is derived from his emotional intelligence. Therefore, to prepare children for success and prevent early mental disorders in children, it is also expected that the exercise of brain gyms in addition to the absence of delinquent-children of their peers at an early age. Based on a three-day study conducted by presenting the brain gym to all four respondents, it is concluded that providing the brain gym for three days in a row would increase emotional intelligence in elementary school children.

CONCLUSION

The results of case studies show on the third day it is known that the average emotional intelligence of the child before the execution of brain gym is 51 that is in low categories and 53 are the highest. After giving brain gym its highest marks are at 67 and its lowest 58. From the results of the case study it was obtained data that the emotional intelligence of each of the respondents increased in the category of high emotional intelligence. Case studies show that brain gym observation sheet day three of each is well and properly executed. The results of the case studies suggest that the emotional intelligence before given to Brain gym after brain gym was enhanced emotional intelligence. The application of brain gyms to enhance the ability of the emotional intelligence of Elementary School Students in Jragung Village Karangawen Sub-District Demak Regency is effective in order to increase guidance and emphasis on child nursing concepts, on factors that affect the child's level of emotional intelligence, particularly on the effective implementation of the brain gym on elementary school children.

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