

Improving The Gross Motor Skills Of Mentally Retarded Children Through Rhythmic Brain Gym Activities

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Abstract.

This study aims to identify and describe the influence of Brain Gym or brain exercises to increase gross motor skills and fine motor mental reterdation category were aged 4 years to 6 years. In this study, the sample were students in kindergarten SLB Muhammadiyah Jombang. This study was conducted in 10 meetings for each child. Each child will be given the treatment in the form of brain exercise, starting from the lateral dimension, focusing dimension and the dimension of convergence. Tests performed every time the student has finished the movement brain gymnastics. This is done so that the results of tests that are obtained more accurately. Mental reterdation characteristics that have limitations in considering would negatively affect the test results. Tests for gross motor movement and fine motor movement using DDST test format. DDST contains procedures for conducting tests and evaluation of test results. For the tests of gross motor movement and fine motor movement there are three assessment criteria, namely failed, refused and passed. At the beginning of the meeting five tests carried out many items in the category of students failed and refused. This is caused by the adaptation of students in recognizing the new environment and the movement of brain exercises that they have never done before. At the end of the five meetings that the number of test items in the category refuse and fail to decline, it is because the students have started to adapt and understand instructions, instructions were given to them. Overall improvement of the results of tests on five initial meeting and five final meeting for categories of pass is 33.8%. Based on this research exercise influence Brain Gym on the development of gross motor movement and fine motor skills of children with intellectual challenges, it can be argued conclusions in this study are: Gymnastics Therapy Brain (Brain Gym) have an influence on the development of gross motor movement and fine motor movement for mental reterdation middle category were aged 4 years to 6 years.

Keywords: Brain Gym, Motor Skills, Gross Motor Skills, Fine Motor Skills and Mental Reterdation.

I. INTRODUCTION

Education is a natural process that occurs naturally in human life in the family environment. In its development, human life has become increasingly complex and advanced, so that family education which prioritizes natural personal formation is no longer adequate to face the development and progress of science and technology (science and technology). Therefore a formal educational structure was created which is called school education (Nursalim et al, 2007). The definition of education in the national education system is a conscious effort to prepare students through guidance, teaching and/or training activities and their role in the future. Education has as its core the interaction between educators and students in an effort to help students master educational goals. Educational interactions can take place within the family, school or community. Among these three interactions, only school is formal. Teachers as educators in schools have been formally prepared in teacher education institutions. As teacher educators have learned the science, skills and art of being a teacher. Teachers have also been trained to have personalities as educators. Not only handling normal students, but nowadays handling students with special needs is also very important. Physical education for children with special needs is very important because it improves the quality of movement and physical fitness of students through physical activity. However, the problems faced by children with special needs are different from normal children. Children with disabilities generally have low motor skills.

Sutjihati (2012:103), explains that mentally retarded is a term used for children who have below average intelligence abilities. In another sense, it can be explained that mental retardation is a condition of

children who have below average intelligence and are characterized by limited intelligence and incompetence in social interaction. Children with mental retardation have a Mental Age (MA) lower than their age. MA is the mental ability that a person has at a certain age. Mental retardation or mental retardation is a condition where the development of intelligence experiences obstacles so that it does not reach the optimal stage of development. Mildly mentally retarded physically appear like normal children. Meanwhile, for moderately mentally retarded children, it is difficult for them to learn academically, such as writing, arithmetic and reading, but they can still be taught how to take care of themselves, such as bathing, dressing, sweeping or other simple skills. In everyday life, mentally retarded children still need supervision in the process of developing simple skills. The physical and motor development of mentally retarded children is not as fast as that of normal children. The results of the research show that the level of physical fitness of mentally retarded children aged 2 years to 12 years is very poor. Meanwhile, normal children of the same age are in the poor category. Thus, the level of physical fitness of mentally retarded children is a level lower than that of normal children of the same age.

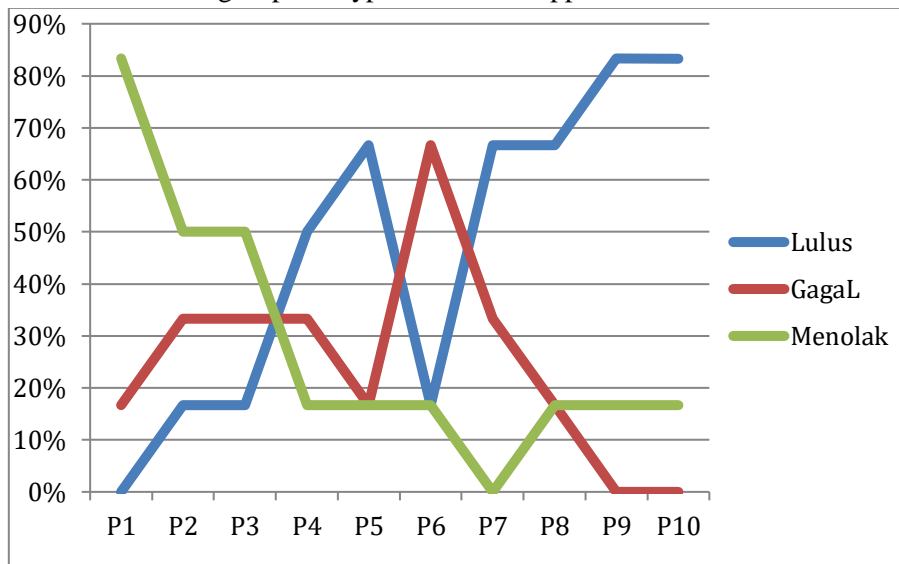
As in previous research, brain exercises were used as therapy to determine the motor movement abilities of students with mild mental retardation. This research is aimed at children who experience mild mental retardation. Meanwhile, the classification that requires supervision in the development of both gross and fine motor skills is moderate intellectual disability. Children with severe mental retardation require total care in all their activities. Even children need protection from danger throughout their lives. From the data facts above, the classification that could possibly be improved is the medium classification. To be able to overcome this problem, we need a way to improve motor skills. One of them is Brain Gym or brain exercise. With brain exercises, children with mild mental retardation can train the coordination of basic movements. Brain gym is a series of exercises based on simple body movements (<http://rahasiaotak.com>). Meanwhile, in the research journal Tauchid and Noor (2009: 3) define brain gym as the name of a series of simple movement exercises to facilitate learning activities. Brain Gym has been widely used as an alternative way to improve the abilities of children, both normal children and children with special needs. Keith J. Hyatt (2007) explains that brain exercises can improve the motor skills of children who experience academic deficits, in this case what is meant is children with special needs. Meanwhile, Andrea Watsan and Ginger L. Kelso (2014) stated that brain gym has a good impact on various aspects, such as concentration and focus, memory, academics, physical coordination, social relationships, self-responsibility, organizational skills and attitude.

II. METHODS

This research is included in the Action Research type of research. Action research is used to find solutions to problems faced by someone in their daily tasks wherever they are, whether outside the classroom or inside the classroom. In action research, it is not only limited to the classroom, but wherever the educator works. This research does not use a population, because action research research starts from certain cases in social situations and the study will not be applied to the population, but transferred to other places in social situations that have similarities to the social situation in the case studied. Based on the explanation above, then in this study there is no population. Sugiyono (2010: 118) explains that the sample is part of the number and characteristics of the population. The samples taken must be representative to make it easier for researchers to study and then conclude the results of their research. The type of test used in this research was DDST II (Denver Developmental Screening Test). DDST II is an assessment method that is widely used to assess the developmental progress of children aged 0-6 years (Nugroho, 2009: 3). In DDST II there are 125 developmental task items according to the child's age, starting from 0-6 years old. These items are arranged in a special form and divided into 4 sectors as written in Nugroho (2009: 6). Data analysis in this study used descriptive analysis. Descriptives are carried out in detail at each meeting to serve as evaluation material later.

III. RESULT AND DISCUSSION

Acrylic paints are a complex formulation that includes numerous ingredients. The final product must meet commercial (shelf life, material costs, environmental and health safety) and artistic (durability, color and film stability, drying rate) demands. Therefore, the paint tube might contain the acrylic binder, pigment or dye, wetting and dispersing agents, thickeners, biocides and defoamers [13]. In the description of the results of this research, the mean and standard deviation obtained from the test results carried out in each group are calculated based on the group and type of exercise applied.



From the picture above, the graduation rate from the first to the last meeting tends to be good, the decline only occurs between the 5th and 6th meeting, namely the original value of 66.67% became 16.67%. The failure rate in the first five meetings was still fluctuating, entering the 6th meeting or the last five meetings it looked stable with a percentage that continued to decrease. On the graph the rejection looks more stable, fluctuations occur between the 6th and 8th meetings. If observed at the first five meetings, Ivan's average graduation rate was low, namely 30%. This also occurs in the failure rate and rejection rate which are 26.67% and 43.33% respectively. If in the pass category the greater the pass rate, the better. The opposite happens to the failure rate and rejection rate. If the failure and rejection rate is greater then this indicates that the test results are not good. In the last five meetings, the first pass results increased to 63.33% and the failure and rejection results decreased to 23.33% and 13.34. In the first cycle, namely meetings 1-5, the test results showed poor grades. This is indicated by the test results where the tendency to refuse and fail is greater than the score in the pass category. From the results of observations in the first cycle, this happened because of the adaptation and introduction process experienced by the students. The characteristics of mentally retarded children who tend to find it difficult to accept the presence of new people make the activities in the first cycle less than optimal, for this reason there is a need for a second cycle to improve. Apart from that, the problem at the first meeting is controlling the child's behavior, which tends to be arbitrary and difficult to direct. Muhammad (2011: 108) revealed that brain exercise apart from helping with all things related to intelligence, can also help overcome children's delays in walking or running, and help children who cannot be separated from their parents, as well as increasing their motivation and enthusiasm.

If we return to the results of this research, this statement is very appropriate and correct. In Iqbal's (2009) research, brain exercises were used as therapy to find out how much influence it had on the motor development of children with mild intellectual disabilities, while the results of this study also showed that brain exercises could also be applied to children with moderate intellectual disabilities who were classified as moderate. The results of this research are in accordance with research conducted by Iqbal in 2009. So researchers can conclude that brain gym can also be applied to moderately mentally retarded children. In this second cycle there is slowly improvement, the mentally retarded child is able to adapt well, especially to the series of brain exercise movements. At certain meetings, sometimes children are still difficult to direct, for example when taking a test or during the brain exercise learning process. Their tendency is to prefer to

disturb their friends when they are going to do activities, be it tests or learning brain exercises. The results obtained in the second cycle were better than the first cycle, and there were significant differences in each category of test results. If in the first cycle the tendency to reject and fail was quite large, in the second cycle the tendency to fail and reject decreased. For MA students this does not apply, because what happens is just the opposite. For MA students, the percentage of failures and rejections in the second cycle was higher than in the first cycle. This is because the characteristics of MA students are that they are difficult to direct, basically MA students are able to adapt, but if their feelings are not good then they will refuse to carry out all the instructions given, they will just sleep and lie on the floor.

IV. CONCLUSION

Based on the results of research on the influence of brain gymnastics on the development of gross motor and fine motor movements in mentally retarded children and the discussion described in the previous chapter, the conclusions in this research can be stated as follows:

1. Brain Gym therapy has an influence on the development of gross motor movements and fine motor movements of moderately mentally retarded children aged 4 years-6 years
2. The results of comparing the average scores at the first 5 meetings and the final five meetings showed an average increase of 33.8%

V. ACKNOWLEDGMENTS

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