

# The Use of Paper Toys in Supporting Fine Motor Development of Children with Moderate Mental Retardation

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## ARTICLE INFO

### **Keywords:**

Paper Toys,  
Fine Motor,  
Mental Retardation  
Children.

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## ABSTRACT

**Background:** Mentally retarded children are children who have intellectual decline. Children with mental retardation cannot coordinate well with small muscles or fine motor parts, for example: folding fingers, and so on. **Method:** This research uses Pre-Experiment One Group Pre Test Post Test Design. The sample of mental retardation in SLB C1 Putera Asih Kediri City was 30 respondents using purposive sampling technique to meet the inclusion and exclusion criteria, there were 28 respondents. The independent variable is paper toys and the dependent variable is the fine motor skills of children with moderate mental retardation. The instrument is an observation sheet to determine the effect between the variables used by the Wilcoxon test with a significant level of 0.05. **Results** The results of the study, before being given paper toys as many as 20 (67%) children experienced inappropriate fine motor development. Fine motor development of moderately mentally retarded children after being given paper toys as many as 21 children (48%) children experienced good fine motor development. The results of the statistical test show a significant value with a p value of 0.000 which means p value <0.005 so that H<sub>0</sub> is rejected. **Conclusion:** the use of paper toys at SLB C1 Putera Asih, Kediri City shows that there is an influence between the use of paper toys and fine motor development, because paper toys can make children concentrate, explore or stimulate children to coordinate their small muscles or fine motor skills.

## I. Introduction

Having children with intelligence disorders is one thing that is beyond the concept of the ideal child of every married couple. Every parent has the hope of having normal, physically and mentally healthy children. But in reality not all children are born with perfect physical and psychological conditions, sometimes children show obstacles in their development which are commonly known as mental retardation. Children with mental retardation experience difficulties in attending education like normal children, have difficulty taking care of themselves in society, and they must be helped by others, so that these children have a very high sense of dependence (Benny et al. 2014). Mental retardation is a lifelong mental disorder or a state of mental development that is stopped or incomplete so that it affects the overall level of intelligence, for example socialization, motor and cognitive abilities (Maslim, 2007). Mentally retarded children experience limited socialization due to their low level of intelligence, so it is quite difficult to learn information, adapt skills to the environment and cannot carry out their duties as members of the community according to existing provisions (Somatri 2007).

According to WHO statistics, it is estimated that 10% of the population in developed countries is disabled and 12% is found in developing countries (Baykan, 2003 quoted from Sen & Yurtsever, 2007). In developing countries the population of children with mental retardation occupies the largest number compared to the number of children with other disabilities.

Motor disorders at pre-school age are estimated from 3-5% and as many as 60% of cases are found to occur spontaneously at the age of under 5 years (Ministry of Health of the Republic of Indonesia, 2012). Around 16% of children aged 3-6 years in Indonesia are reported to have developmental disorders, one of which is motor disorders (Ministry of Health of the Republic of Indonesia, 2012). Meanwhile, from data from the East Java Provincial Health Office in 2012, there were 1700 children aged 12-36 months experiencing motor development disorders (Widati, 2012).

Based on a preliminary study conducted by researchers on May 10, 2019 at SLB C1 Putera Asih, Kediri City, data on the number of children with mental retardation were 50 children at SLB C1 Putera Asih, Kediri City. It was found that there were 30 children with moderate mental retardation.

From the interviews with the teacher, there were 10 children who got four children who did not follow the directions of the teacher when giving examples to help explore their fine motor skills. This is because the children lack concentration when their teacher gives directions before starting giving paper toys and because the teacher teaches paper toys to mentally retarded children only once a month, so children do not really like paper toys.

Of some mentally retarded children, a small number of children are very independent when using paper toys, although paper toys are rarely taught by teachers, these children can be alone or independent without being assisted by their teachers because these children are very happy or have a hobby in using paper toys. In contrast to other children who still really need help from the teacher to guide when given paper toys because the muscles in their fingers are stiff in folding paper. Even though the use of paper toys is very helpful in stimulating the development of fine motor skills for mentally retarded children, but because of the increasing number of lessons that must be given to mentally retarded children, the use of paper toys is rarely given to mentally retarded children in SLB C1 Putera Asih, Kediri City.

Based on the results of interviews conducted by researchers with one of the teachers at SLB C1 Putera Asih, Kediri, the teacher said that children with mental retardation were very difficult to receive education from teachers and parents because they lacked confidence in developing fine motor skills so that children were less able to develop creativity and activity. in the classroom.

## II. METHODS

The research design used in this study uses the "Pre-Experimental Design" research method with the type of "One Group Pre-test Post Test Designs" which in this design allows the researcher to test the changes that occur in the experiment. In this study, the population is all children with moderate mental retardation were 30 children in SLB C1 Putera Asih Kediri City. The sample of the study was 28 children with mental retardation in SLB C1 Putera Asih Kediri City using the slofin formula and the sampling technique was purposive sampling. The instrument used in this research is the Observation Sheet using a checklist. Data management through stages, namely Editing, Coding or data coding, Scoring and Tabulating.

## III. RESULTS

From the results of the study after statistical tests were carried out using the Wilcoxon test, with a value of  $= 0.000$ , a significant value was obtained in the pre test and post use of paper toys in supporting fine motor development in mentally retarded children in SLB C1 Putera Asih, Kediri City, a significant value of  $0.000$  was obtained. means that  $p \text{ value} \leq 0.000$  which means that there is an influence between the use of paper toys in supporting fine motor development in mentally retarded children at SLB C1 Putera Asih Kediri City

## IV. DISCUSSION

The results of the SPSS for Windows test using the Willcoxon statistical test, where  $= 0.05$  obtained a significant value of  $0.000$ . Because the significant value  $< 0.05$ , which means that there is an effect of using paper toys on the development of moderately mentally retarded children in SLB C1 Putera Asih, Kediri City. Then the results of the study obtained a significant value, then the results of the study

obtained a significant value, where H0 was rejected and H1 was accepted, meaning that there was an effect of using paper toys on the fine motor development of moderately mentally retarded children in SLB C1 Putera Asih, Kediri City.

Development is an adaptive cognitive aspect to the cognitive environment. Adaptive to a qualitative environment. An example of this qualitative change is an increase in the functional capacity of mastery of several smaller skills. For example: a significant and observable qualitative change for children's age is adapting to telephone conversations with their parents. Before developing this capacity, they must develop a simple vocabulary, learn to place words, along with phrases and sentences and develop a cognitive understanding of permanent objects (Perry & Potter, 2005).

Children who receive a lot of stimulus will develop more quickly than children who do not receive a stimulus, which can also function as reinforcement. Giving a stimulus will be more effective if it pays attention to the needs of children according to the stages of development. Play is a certain condition when a person seeks pleasure or satisfaction through an activity. Playing is showing an activity of someone who does a type of game. (Muliawan, 2009).

According to a reformist in education, Froebel, emphasized the importance of playing in learning because based on his experience as a teacher, he realized that playing activities and toys enjoyed by children could be used to attract attention and develop their knowledge. So, Plato, Aristotle and Froebel consider playing as an activity that has practical value, meaning that playing is used as a medium to improve certain skills and abilities in children (Tedjasaputra, 2012).

Paper toys are excellent exercises for mastering and controlling hand movements. Apart from that, the art of paper folding also trains children's brains to think and plan things out of paper so that they can be realized. The secret is to fold carefully and press with your fingernail on the crease to make a good crease. Paper toys are useful for learning to plan and make their own and follow directions and perform proper hand movements. It is important to educate children to learn independently by making everything themselves (Prasetyo, 2008).

It is not unusual for children to fill their spare time with playing, because playing is something that cannot be separated from a child's life. This activity is the most important activity and is most liked by normal children and children with mental disorders, because by playing children can get pleasure. Playing can also be beneficial for the development of fine and gross motor skills for children. The world of children is a world of play because it is full of laughter, joy, and thinking activities. Play activities can also stimulate children's growth and development. Games can be needed to maximize children's development, for example, origami games can maximize fine motor development in children. Not all games are useful for children, so parents must also be smarter in choosing games. The game must have an educational element contained in the game. In giving games to children, parents or teachers must be able to measure the ability of the child. From the gift of the game, it can be seen how far the child can do, because after all, children have stages of development. Play can be done as an effort to stimulate the development and growth of children. Playing paper toys is very necessary to maximize the fine motor development of children with moderate mental retardation. So in giving the opportunity to play, parents or teachers need to classify the forms and types of games. Parents should not just sort out the game but must pay attention to the educational elements contained in the game. In providing games, parents or teachers should also pay attention to the child's abilities. To what extent can children do, after all, children in humans are going through a stage of development. If the mentally retarded child is not able to hone his fine motor skills like other children. Selan pay attention to age, gender, and type of mental retardation because the types of fine motor intelligence of children are different. Paper toys, if given continuously, will have a positive impact on children's development. Paper toys can be given to boys or girls. Of course, in providing a stimulus must also show the age of the child with the level of difficulty of each game. Give the game from an easy level then to an easy level and then to a difficult level

## V. CONCLUSION

There is an effect of using paper toys in supporting the development of fine motor skills in children

with moderate mental retardation at SLB C1 Putera Asih, Kediri City, a significant result of 0.000 which means  $p \text{ value} \leq 0.005$  which means that there is an influence between the use of paper toys on fine motor development of children with moderate mental retardation.

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