



The Effect of Blocks Constructive Game to Improve Children's Fine Motor Skill in the year of 4-5 years old

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Abstract

Fine motor skills of children has an important relation in their daily life, such as writing, shaping, grasping spoon, tying shoes, and buttoning clothes. Those skills will be perfect if there was a stimulation. The stimulation can be given by providing some learning method such as blocks constructive games. By providing a game as a learning method, it can make the children happy. The objective of this research was to find out whether there was an effect of constructive game in developing children motoric skills of ages 4-5 years. This research used experiment method of Pre-experimental and One Group pretest and posttest design. Research subject were children of 4-5 years, group A in TK Pembina ABA 54 Semarang. Purposive sampling was used to take the sample. Paired Sample t-Test was used to analyze the data. Posttest result of experiment group showed higher score than pretest. The measurement of paired sample t-Test aimed the $t = -42.003$ with the sig (2-tailed) < 0.05 . The research aimed 100% as an amount of the effect by using constructive blocks game to improve children fine motor skill. There were a significant difference between the fine motor skill after and before conducting the constructive blocks game

INTRODUCTION

Children world is a world of playing. Playing is an important part of the children life. Early childhood spent more time by playing. Through playing, children feel the experience of emotion, such as happy, sad, frustrated, proud, angry, and so on. Through playing also, children understand the link between themselves and their social environment. By playing children can express themselves and explore the capabilities that exist within them. Through play children's growth and development can be generated and stimulated. According Mutiah (2010:152) various developmental aspects can be optimized in playing activities, such as helping children to master their fine motor skills. Because through the game children can practice their fine motoric skills.

Playing is the most effective way to finalize the development of children at preschool age, and at primary school, both in academic, as well as the physical and emotional social aspects. Through playing, children are invited to explore, discover, exploit, and a taking some lesson or conclusion about the surrounding objects. According Vigotsky (Megawangi, 2005:7) playing and concrete activities can provide a natural momentum for children to learn things according to the stage of development ages (age-Appropriate), and the specific needs of children (Individual needs).

Fine motoric development begins in early ages through holding and fingering. Hand movements should be developed well in order to cover the basic skills to make horizontal lines, vertical lines, slash line left or right, curved or circular so it can be continuously improved. By having the basic skills, children start to make some letter forms. Fine motor skills is very important for young children, especially children of kindergarten. Due to the fine motor skills, children can perform various activities that are simple but important in their daily life, such as writing, grasping objects, tying shoes, buttoning clothes, folding and so forth.

At preschool age, the child's hand movements are already at the level of making a pattern. This level is the most difficult because the children have to make the pattern on their own. The children who got lack in fine motoric skill development sometimes caused by the lack of eye coordination exercise, hand and motion control capabilities. If the fine motor skills are not possessed by a child, then the activity will run into obstacles or delays, especially in the use of hand-eye coordination movement. One way to develop fine motor skills for child can thrive by providing

stimulation. Stimulation can be given by playing activity.

At preschool age, children usually do constructive play activities, creating a form or a building. By playing constructive play of children are forced with imagination and creativity in building construction, and precision in preparing media or plaything to be a perfect or complete building, Bergin (Santrok, 20011). This game is a game which activities are building, construct and reconstruct the existing building with the media playing games or tools. The main tool which often used when playing a constructive namely blocks, lego, plasticine and playdough. Blocks have been selected for the game for children, easy to use without requiring special skills and safe for children. Some experts argue that playing blocks provide extensive benefits for children's development, both physical and muscle coordination, emotional, social, creative expression and development of the senses, and learning concepts, shape, size, value measure, Dodge (Masnipal, 2013:294).

Activity of playing blocks will run smoothly with a good planning. Based on the results of research conducted by Jovanka, et al (2016) entitled "Scaffolding in Kindergarten Block Activities Based on Constructivism (Research and Development on Scaffolding Model for Block Activities in Kindergarten)" concluded that the activity of playing blocks will run smoothly with a good planning for children. It can be done by giving an explanation or communicative way to build a blocks building based on the theme, show or provide pictures, photos or movies on the type of building, as well as question and answer with the children about their building and play as a group. In addition, playing blocks aims to develop physical and motor skills of children while building blocks derived from the cognitive skills which used to think how to build a building they want by placing multiple blocks horizontally and vertically. By playing blocks several other skills also developed. This activity helps children to expand their point of view, stimulate and motivate children in the block play.

Based on previous studies, suggest that fine motor skills can be provided through a variety of stimulation, such as learning method, type of activity and media given by the teacher. Therefore, stimulated fine motor skills tend to be higher than the stimulation absence of fine motor skills in learning methods, type of activity and the media, or in other words, using the classical method. Wardoyo in his research on The Development of Fine Motoric Ability Through Blocks Games In Group of kindergarten Karangpelem

1 Kedawung Sragen, Academic Year 2013/2014 result that, through blocks games fine motor skills of a child can be developed. In TK Pembina ABA 54 Semarang, children's fine motor skills are still in the level of low, such as how to grip a pencil and write were still underdeveloped. Some children still find some difficulties in grasping the pencil and produce poor handwriting, they still ask how to write the letters or trace shapes, making a circle, they still ask the teacher and ask the teacher to make it, and not aligned in making vertical and horizontal lines, and the ability in forming the arch left / right, tilt left / right. In the blocks constructive games, children will train their smooth muscles to achieve balance, movement and certain skills. The precision is required to build and balance while building the blocks up into the building. With this condition the researchers interested in conducting research in the form of constructive play with blocks media to improve the fine motor skills of children aged 4-5 years in kindergarten Pembina ABA 54 Semarang as a resolving objectives that arise in the realm of the early childhood education.

RESEARCH METHOD

This study used a quantitative approach to the type of Pre-experimental type of one group pretest-posttest design. In this study, the design model, the group will not randomly taken, and also there was no comparison group, but given the initial test and final test in addition to the treatment (Sukmadinata, 2009: 208). Subjects in this study were 30 children of group A TK Pembina ABA 54 Semarang. The sampling technique in this study used a purposive sampling technique. The scale of response measurement was done by using a Likert scale. The scale used in the study was the scale of the fine motor skills of children aged 4-5 years. In this study, researchers used a check-list.

The research instrument for measuring fine motor skills of children aged 4-5 years is based on the theory of Yemen and Sanan (2013:101) and Permendikbud number 137- 2014 about the fine motor skills of children aged 4-5 years. Validity test used in this research was conducted by using Pearson Product Moment with the help of a computer program SPSS Statistics IMB 20. By what criteria if $r_{\text{arithmetical}} > R_{\text{critical}}$ then valid point statement, while the count $r < r_{\text{critical}}$, the critical point statement is not valid. Instrument reliability test by using Cronbach Alpha coefficient formula, if there is an alpha coefficient value is greater than the critical r research instrument is said to be re-

liable. Data analysis using Paired Sample t-Test.

RESULTS AND DISCUSSION

Research on the influence of constructive play with blocks media in improving the fine motor skills of children aged 4-5 years in 54 Semarang ABA TK Pembina held on 19 September 2016 to 14 September 2016 in group A of TK Pembina ABA 54 Semarang. The study was conducted over 12 meetings in the center of the blocks which began with a pretest and then given treatment (treatment) and ended with the posttest. Data were collected in two ways: through the pretest and posttest, with filling scale of the fine motor skills of children aged 4-5 years were based on the aspects of fine motor skills of children aged 4-5 years. After the from data pretest and posttest out, then continued by conducting a descriptive analysis to determine the mean of pretest and posttest then analyzed by Paired Samples T-test to find out the differences before and after the treatment.

Based on the calculations, the mean of the pretest phase is 68.93 and average scores on the posttest phase was 115.83. The smallest value (minimum) in the pretest phase is 57 and the smallest value in the posttest phase is 87. The largest value (maximum) in the pretest phase is 102 and the largest value in the posttest phase is 123. This indicated that the fine motor skills of children at pretest phase were lower than the fine motor skills of children at posttest phase.

Before performing these calculations, there were several requirements that must be fulfilled e.g the data should be normal so normality test should be done beforehand. From the test results obtained by the significant level of normality for the pretest and posttest for fine motor skills of children respectively 0.991 and 0.138. The criteria data were expressed normal by Sig level. more than α , then the data is said to be normally distributed. If the level of Sig. less than α , the data distribution was not normal. α value used was 0.05. From these results it can be said that a significant level of each larger than α , it can be concluded that the data of fine motor skills of children have normal distribution.

Based on the results of statistical calculations that have been done, the data obtained by t-test (Paired Sample T-Test) that t is greater than t table ($-42.003 < -20.42$), with sig = 0.000. This means that there were significant difference fine motor skills of children aged 4-5 years before and after the constructively blocks game. After being given treatment by constructive play with

blocks media, fine motor skills begin to develop. By playing a constructive, children will train the smooth muscles to achieve balance, movement and certain skills. In connection with this opinion, Patmonodewo (2010: 152) explains that through playing blocks, children got the chance to train the eye and hand co-operation as well as physical condition. In line with this, Mutiah (2010: 152) reveals that the various aspects of development can be optimized in playing activities, such as helping children master the fine motor skills, because through the game children can practice their fine motor skills.

The amount of influence with the media of blocks constructive playing in improving the fine motor skills is 100%. This can be seen in the posttest results after treatment with the child interval score of 99-132, fine motor skills of children increased which had previously been at a low level and the medium becomes high. It means that the fine motor skills of children after being given blocks constructive games was higher. This shows that constructive play has advantages as the stimulation of fine motor skills of children. In line with the research results, Hurlock (2013) explains the benefits of constructive play is, it can improve gross and fine motor ability of children, introduce the basic concepts of mathematics, stimulating creativity and imagination of children, develop children's language skills.

Based on the research conducted, it can be seen that the constructive play with blocks can affect the fine motor skills of children aged 4-5 years as indicated by the structure of the building is balanced, the ability of children in arranging the blocks well, eye-hand coordination of children in constructing a building, a child's ability of pinching small blocks.

CONCLUSION

Based on the results of research and dis-

cussion, it can be concluded that there was significant influence between the fine motor skills of children aged 4-5 years before and after the treatment of blocks constructive game. Fine motor skills of a child can be stimulated in various ways, such as teaching methods, types of activities and instructional media, one of them by providing the type of learning activities which was currently underway, blocks constructive game.

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