THE EFFECT OF SENSORY PLAY ANIMALS RESCUE ON FINE MOTOR SKILLS OF 2-3 YEAR OLD CHILDREN AT RUMAH WORTEL DAYCARE, PEKANBARU

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ABSTRACT

This study aims to determine the effect of Sensory Play Animals Rescue on the fine motor skills of children aged 2–3 years at Daycare Rumah Wortel Pekanbaru. The method used was a quantitative approach with a pre-experimental design in the form of a *One Group Pretest-Posttest Design*. The research sample consisted of 10 children selected from the 2–3-year-old population. Data were collected through observation based on four fine motor skill indicators. Pretesst results showed most children were in the "emerging" category (70%) and "not yet developing" (30%). After the Sensory Play Animals Rescue intervention, posttest results showed significant improvement: 80% were in the "very well developed" category and 20% "as expected." The t-test yielded a significance value of 0.000 < 0.05, indicating a significant effect. The normalized gain score showed 78.70% effectiveness in the high category. Thus, Sensory Play Animals Rescue is proven effective in improving fine motor skills in early childhood.

Keywords : *Sensory Play Animals Rescue, Fine Motor Skills, Early Childhood*

INTRODUCTION

The rapid development of digital technology has affected many aspects of child development, various traditional games involving fine and gross motor skills are now replaced by games that children can play just by touching the screen, children are used to playing indoors without seeing the wider outside world. The rapid development of digital technology has affected many aspects of child development, various traditional games involving fine and gross motor skills are now replaced by games that children can play just by touching the screen, children are used to playing indoors without seeing the wider outside world. According to Sutini & Rahmawati (2015:50) early childhood is a small individual who is in the early stages of life. The early age period is a time when individuals are in the most rapid stage of growth and development, both physically and mentally. One aspect of development that is developing quite rapidly in children is the physical motor aspect (Pertiwi et al., 2021:63). Furthermore, according to Hendraningrat & Fauziah (2021:59) monitoring of child growth and development can begin from conception and will continue until adulthood, this process is interconnected and ongoing. The development of language skills, creativity, emotional awareness, and intelligence (a person's ability to think, learn, and adapt to the environment) is an important phase in a child's growth and development and is the foundation for subsequent development.

At an early age, children play and gain knowledge about their environment, so that it can provide opportunities and experiences for children and will be useful in helping their growth and development (Wahyuni, 2023:82), while according to Soleha & Sjamsir (2022:27) many factors that influence and are intertwined in the ongoing process of child development, both innate elements and elements of experience obtained in interacting with the environment both provide certain contributions to the direction and rate of the child's development. Development is a pattern of change that begins at the time of conception and continues throughout life.

Iswahyuni (2022:5) argues that children aged 2-3 years will have many new abilities that they can master and the child's growth occurs more rapidly. The development of motor skills in children aged 2-3 years can be seen from optimal body coordination and balance, children will find it easier to grasp small objects, while according to Hayati & Tawati (2021:2)at each phase, children need stimulation to develop their mental and fine motor skills. The more children see and hear, the more they want to know. If they don't get enough stimulation, children will get bored. However, the influence of innate traits also contributes to the speed of children's fine motor skills. There are indicators of fine motor achievement for children aged 2-3 years issued by Permendikbud No. 137 of 2014, namely 1) squeezing paper or cloth by moving five fingers, 2) folding cloth or paper even though it is not neat or straight, 3) cutting paper without a pattern, 4) finger coordination is good enough to hold flat objects such as toothbrushes and spoons.

Critz et al (2015:711) said that in playing activities, a person's sensory experience is greatly influenced by the daily activities carried out. Family or people around also influence the extent to which children receive experiences, meanings, and feelings while playing. In this process, family involvement such as parents and companions has an important role in accompanying children and their activities. According to Muarifah & Nurkhasanah (2019:15) the problem that often occurs in Indonesia is that children's fine motor skills are not stimulated appropriately based on their age stage, many educators or parents invite early childhood children directly to write numbers or letters, while for children to be able to write they must optimize their fine motor skills. Therefore, early childhood educators must first understand more about the development of children's fine motor skills, while the problems that researchers found at the Pekanbaru Carrot House Daycare were 1) children were not

yet able to crumple paper or cloth by moving five fingers, 2) children were not yet able to fold cloth or paper even though it was not neat or straight, 3) children were not yet able to cut paper without a pattern, 4) children were not yet able to coordinate their fingers well enough to hold flat objects such as toothbrushes and spoons.

If children do not get enough sensory stimulation, this can have a negative impact on their development and make it difficult to obtain information received by their senses. Motor development disorders, sensory disorders, cognitive limitations, and social and emotional development disorders are some of the negative effects that may occur (Julianti et al., 2023:131). Therefore, in this study, researchers tried to improve children's fine motor skills through Sensory Play Animals Rescue media. Animals Rescue is an activity that involves children's sensory abilities in the form of games to help or save animals. This game will be the activity used in this study to improve children's fine motor skills. Judging from previous studies, Sensory Play is usually played with only one sensory media, for example playing with agar-agar or basil seeds. This activity only plays with agar-agar and is not added with other media such as tongs, scissors, toy cars or animals, while the Sensory Play Animals Rescue that researchers created uses several other media (animal toys, scissors and aluminum foil) so that children are more interested and do not make children bored in playing. Based on the background of the problem above, the author conducted a study entitled "**The Effect of Sensory Play Animals Rescue on Fine Motor Skills of 2-3 Year Old Children at Rumah Wortel Daycare, Pekanbaru**".

METHOD

This research was conducted at the Rumah Wortel Pekanbaru Daycare, aged 2-3 years with a total of 10 children. The time of data collection was taken from the preparation of the proposal and seminar to the thesis exam in September 2024 - June 2025. The researcher used a quantitative experimental research method, namely a research method used to see the effect of the independent variable (X) on the dependent variable (Y) (Ratminingsih, 2019:32)The design used in this study was a Pre-Experimental design with a One Group Pre-Test Post-Test Design model.

The population in this study was 15 toddlers at the Rumah Wortel Pekanbaru Daycare. The sample used in this study was children aged 2-3 years with a total of 10 children who would be given treatment and see its effect on fine motor skills. The type of research data is primary data which is data obtained directly after it is collected. The data collection technique used in the study is Observation. The data analysis technique used in this study is quantitative data analysis according to the experimental method. Data analysis using t-test statistics aims to see the extent of the partial influence between the independent variable (X) and the dependent variable (Y) with the opinion that the variable is considered constant, with a 95% confidence level ($\alpha = 0.05$). In this case, the data analysis process calculates the effectiveness of the treatment of the average difference with the t-test (Arikunto Suharsimi, 2019).

RESULTS AND DISCUSSIONS

The study treated fine motor skills in children aged 2-3 years at the Rumah Wortel Pekanbaru Daycare using observation techniques with 4 indicators given to 10 children. Based on the results of the pretest data, it can be seen that the fine motor skills in children aged 2-3 years at the Rumah Wortel Pekanbaru Daycare before being given treatment using Sensory Play Animals Rescue can be seen from the following table:

Table 1. Fine Motor Skills of 2-3 Year Old Children at Rumah Wortel Pekanbaru Daycare (Pretest)

No	Category	Range (In %)	F	%
1	BSB	76-100%	0	0,00%
2	BSH	51-76%	0	0,00%
3	MB	26-51%	7	70,00%
4	BB	0-26%	3	30,00%
Amount			**10**	
%				**100.00%**

Based on table 1, it is known that the average child is in the fine motor skills category where children are starting to develop with an achievement of 7 children or 70.00% of what is expected. The rest are in the category of not yet developing with an achievement of 3 children or 30.00% of what is expected. To see more clearly about the beginning reading ability, see the diagram below;

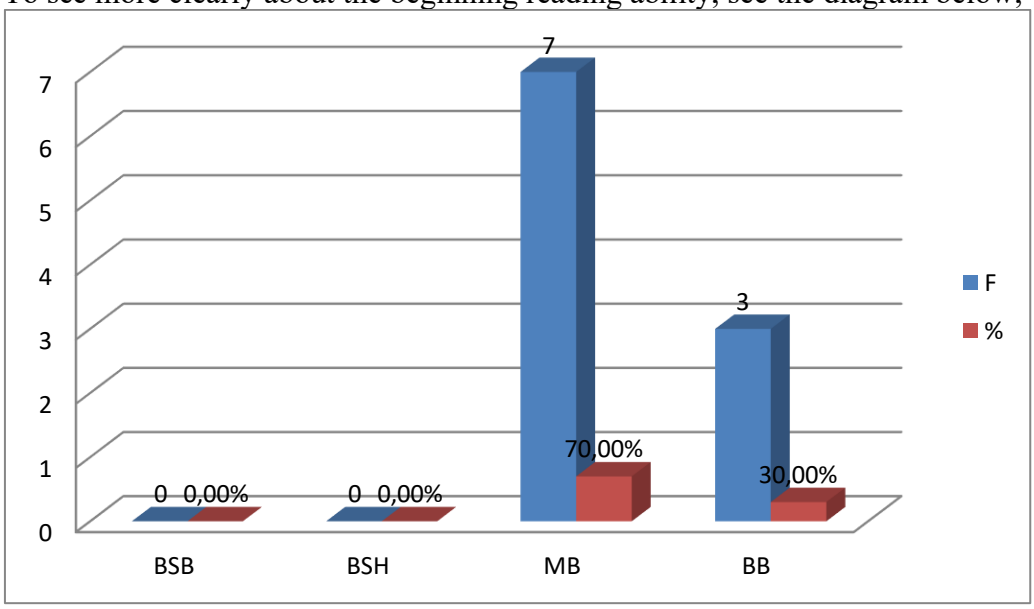


Figure 1. Subject Score Categories in Pretest

Further research was given treatment with Sensory Play Animlas Rescue. In this study, the researcher gave treatment on February 13, 17, 18, 19, 20, 2025. Then continued with a posttest activity on February 21, 2025 to be able to determine fine motor skills in children aged 2-3 years after being given treatment, namely Sensory Play Animlas Rescue, which can be seen in the following table:

Table 2. Fine Motor Skills of 2-3 Year Old Children at Carrot House Daycare Pekanbaru (Posttest)

No	Category	Range (In %)	F	%
1	BSB	76-100%	8	80,00%
2	BSH	51-76%	2	20,00%
3	MB	26-51%	0	0,00%
4	BB	0-26%	0	0,00%

Amount	10
%	100.00

Based on table 2. it is known that the average child is in the fine motor skills of children developing according to expectations with the achievement of 2 children or 20.00% of what is expected. The rest are in the category of developing very well (BSB) with the achievement of 8 children or 80.00% of what is expected.

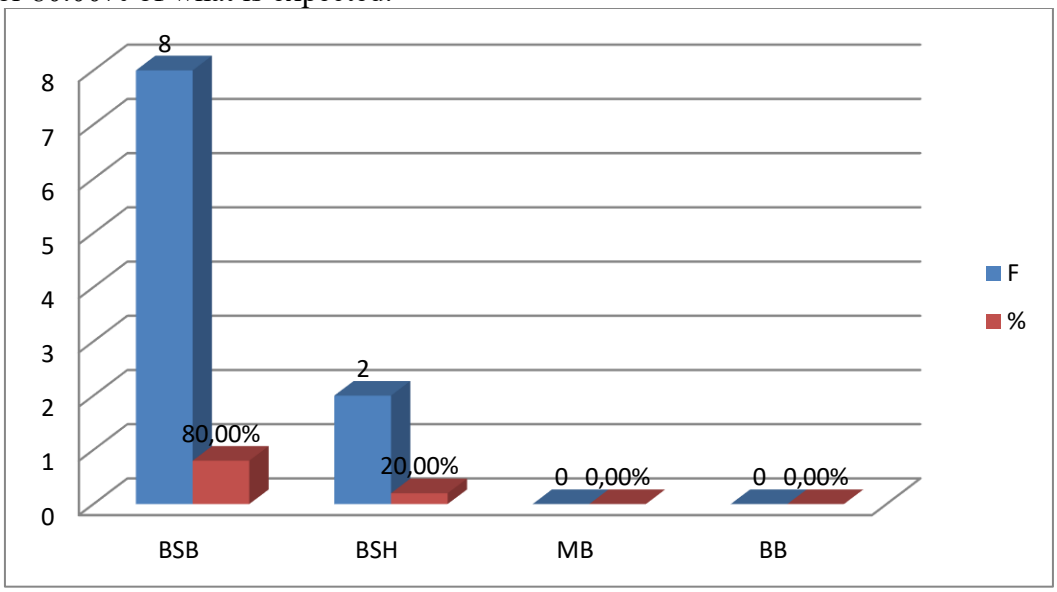


Figure 2. Subject Score Categories in Posttest

The comparison of pretest and posttest in this study used the SPSS statistical test ver 23. With a paired sample t-test, where this test was conducted to see if there was a significant difference before and after using Sensory Play Animation Rescue on children's fine motor skills in the experiment. Data is said to have increased significantly if sig <0.05. If sig> 0.05 then H_o is accepted, H_o is rejected and if <0.05 then H_o is rejected, H_a is accepted.

Table 3. Statistical Test (t-Test)

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Pretest - Posttest	-8,30000	1,50000	0,34157	-9.27267	-7,72733	-24,885	9	0,000

Based on table 3. above, the statistical test value of t count is 24.885, the two-tailed test means the absolute price, so (-) is not used (Sugiyono, 2019) so that t count (24.885) because the sig. value is 0.000 <0.05, then p can be concluded that there is an influence of Sensory Play Animals Rescue on the motor skills of early childhood.

Normalized Gain Test

$$G = \frac{Score\ Posttest - score\ pretest}{Score\ Ideal - score\ pretest} \text{ x } 100\%$$

$$G = \frac{137-52}{160-52} \text{ x } 100\%$$

$$G = \frac{85}{108} \text{ x } 100\%$$

$$G = 78{,}70\%$$

Description:

G = Difference between pretest and posttest scores
Posttest = score after treatment
Pretest = numeric score before treatment
100% = constant score

Looking at the results of using the G formula, we can see that the increase category is 78,70%, which is in the high category G <70%.

CONCLUSIONS

Based on the results of the study, it can be concluded that the fine motor skills of children aged 2-3 years at the Rumah Wortel Pekanbaru Daycare have increased after being given Sensory Play Animals Rescue treatment. Before the treatment, the majority of children were in the category of starting to develop and not yet developing. After the treatment, most children were in the category of developing very well and developing as expected. There is a significant effect of the use of Sensory Play Animals Rescue on improving children's fine motor skills with an effectiveness value of 78.70% and is in the moderate category based on normalized gain. Based on the results of the study, it is recommended that educators and daycare managers continue to utilize Sensory Play Animals Rescue as an effective play method to improve children's fine motor skills. Parents are also expected to accompany their children in sensory play at home with simple and safe materials. Further research is expected to involve more subjects and varying ages so that the results are broader and more in-depth.

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