

Research Article

The Influence of the Traditional Lemon Nipis Game on Children's Cognitive and Social-emotional Development at Paud Mawar FKIP Unpati Ambon

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Abstract.

This study aimed to find out the impact of traditional game “Lemon Nipis” toward the development of the cognitive and social emotions of children at PAUD Mawar FKIP Unpati Ambon. The type of this study used was experiment. The participants of this study were 12 children. The instrument are applied as instrument research are observation and documentation. Based on the result of this study, it shows that the ability of cognitive and social emotion of children at PAUD Mawar Unpatty, Ambon before the study obtained an average pre-test score of 15.46, while the post-test average score was 46.31. While, the results of t test is the significance value (2-tailed) $0.000 < 0.05$. If the significant value is < 0.05 it means that H_0 is rejected and H_a is accepted. Based on the t test results, it shows that the traditional game “Lemon Nipis” have an impact toward the development of the cognitive and social emotion of children at PAUD Mawar FKIP Unpati.

Keywords: traditional game, children cognitive, social emotional development

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1. INTRODUCTION

Early childhood education plays a very important role because early childhood education is the basic foundation of learning that will develop and optimize the potentials that children already have. Efrida explains that early childhood education aims to help learners develop a variety of potential both psychically and physically which includes moral and religious values, language, physical motor, independence and art, social emotional, and cognitive to be ready to follow basic education [1]. Law No. 20 of 2003 concerning the National Education System outlines, “...early childhood education as a coaching effort aimed at children from birth to six years of age which is carried out through providing educational stimuli to help physical and spiritual growth and development so that children have readiness to enter further education” [2]. From the

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description of the National Education System above, it is concluded that early childhood education is carried out by providing stimuli that can help children grow and develop. Providing this stimulus can be done by inviting children to play while learning.

Play is an activity carried out by children spontaneously. Rosdiani argues that play is an activity that aims to get pleasure and happiness, which means there are no binding rules without certain conditions in the game [3]. Play can increase the stimulation of child development, so that it can increase children's intelligence. According to Yulianty, play is needed during child development, both motor and cognitive development. Play is a fun activity that is very easy to familiarize children with each other and is carried out by generation to generation on an ongoing basis [3].

According to Rosi and Raden, games can be divided into two, namely modern games and traditional games [2]. Modern games are games that use contemporary tools and materials and are usually related to digital technology. Modern games, for example, online games such as mobile legends, free fire and many other online games. While traditional games are games that are not touched by modern technology and can result in the emergence of initiative, creativity of children to create and can innovate to produce their own. Pratiwi and Kristanto argue that traditional games have several advantages compared to modern games, because traditional games can introduce, preserve, as well as create a love for the nation's cultural heritage and the noble values contained therein, [4]. Traditional games are a local wisdom that needs to be preserved. However, due to the influence of the current globalization, children cannot be separated from smartphones or gadgets so that children play online games more often than play traditional games, this causes local wisdom in the form of traditional games to be eroded by the times. Therefore, traditional games must continue to be applied in children's play activities, which can be packaged in children's learning.

One of the traditional games is the lemon lime game. According to Murtafi'atun, the lemon nipis game is a children's game originating from the Maluku region but is quite famous in almost all regions in Indonesia, [5]. Murtafi'atun further explained that this game is played by many people. There are two people forming a hallway with their hands raised into the air forming the mouth of the hallway. While the other players line up behind and put their hands on the shoulders of the player in front of them.

While walking like a train in and out through the hallway formed by the other players, the players sing the lemon lime song. At the last lyric that is repeated and there is one player who will enter the circle made by the two players making the hallway. The player who is caught will choose to be the ready man, left or right. Then he will stand behind

his champion while holding his shoulders. The game will continue to be played until one player is left behind and that player is declared defeated.

Based on the results of observations and interviews at PAUD Mawar FKIP Unpati Ambon for children aged 5-6 years, it was found that some children were still lacking in social emotional and cognitive abilities with other children. Of the 22 children there are 81.8% (18 children) who have not shown socio-emotional abilities at very good criteria, while 18.2% (4 children) of socio-emotional abilities have reached very good criteria. As for children's cognitive abilities out of 22 children there are 86.4% (19 children) who have not shown cognitive abilities on very good criteria, while 13.6% (3 children) cognitive abilities have reached very good criteria. This proves that children's social emotional and cognitive development has not developed well, this can be seen from the assessment. Therefore, the lemon lime game was applied to learning at PAUD Mawar FKIP Unpati with the theme of animals. In learning with this game, children who enter the circle will be asked questions related to land, sea or air animals.

2. METHOD

The research approach used in this study was a quantitative research approach with a quasi-experiment approach. The population studied in this study were 22 children at PAUD Mawar FKIP Unpati Ambon. From the calculation using the Slovin formula above, a sample of 12 children was obtained, then it would be used to represent a population of 22 people. The instruments used are observation and documentation to obtain or collect the required data. The following is the instrument lattice used in this study:

The research design used in this study was a pre-experimental design in the form of a one-group pretest-posttest design. The following is the research design used:

The implementation of this research went through three stages, namely; (1) Preparation Stage, namely conducting observations at PAUD Mawar FKIP Unpati Ambon, compiling learning devices in the form of Daily Learning Plans (RPH), teaching materials and research instruments that will be used in data collection, and preparation for teaching with teachers using traditional lemon lime games, (2) Implementation Stage, namely the learning process is carried out by applying traditional lemon lime games with the theme of animals at PAUD Mawar FKIP Unpati Ambon for 4 meetings which begins with a pre test, (3) Final Stage / evaluation, namely conducting a post test (final test). The data analysis technique uses a normality test using the help of the SPSS 20 program. Determine the significance level of 5% or 0.05, if the probability > 0.05 then the data is normally distributed. Conversely, if the probability < 0.05 then the data is

TABLE 1: Instrument grid.

Development	Indicator	Sub Indicator	Item Number	
Social Emotional	Self-awareness	Children are able to have a persistent attitude	1	
		Children have confidence in carrying out learning activities	2	
		Children are able to play ball relay games independently	3	
		Children understand the rules and discipline in the ball relay game	4	
	Sense of responsibility for self and others	Children can separate themselves from their parents	5	
		Children like to help friends	6	
		Children are willing to accept and give forgiveness	7	
		Children cooperate with others in playing ball relay	8	
		Prosocial behavior	Children are active in the group in carrying out learning activities	9
			Children are able to behave politely	10
Cognitive	Logical Thinking	Children classify objects based on color, shape, and size (3 variations)	11	
		The child classifies more objects into the same group or similar groups, or paired groups of more than 2 variations.	12	
		Children sort objects by size from smallest to largest or vice versa.	13	

TABLE 2: One-group Pretest-Posttest Research Design.

Class	Pretest	Treatment	Posttest
Experiment	O ₁	X	O ₂

Source : Sugiyono [6]

not normally distributed. After the normality test is carried out, if the data is said to be normally distributed, then the Paired Sample T-test is carried out on the SPSS 20 program with a significant level of 5% or 0.05. To make a decision, it can be seen after analyzing the data, namely; (a) If the significance > 0.05 then Ho is accepted, Ha is accepted, (b) If the significance < 0.05 then Ho is rejected, Ha is accepted.

3. RESULTS AND DISCUSSION

3.1. Results

This study has a sample of 12 children at PAUD Mawar FKIP Unpatti Ambon. The sample has been tested before being given treatment (pre test) and after treatment (post test). These 12 children were given treatment four times. The following is the research process carried out by the researcher.

3.1.1. Pre test

The pre-test was conducted on Monday, January 15, 2024 at PAUD Mawar FKIP Unpatti Ambon. The pre test carried out by the research team aims to determine the initial state of children's socio-emotional and cognitive abilities. Researchers conducted a pre-test with the aim of assessing aspects of children's social-emotional and cognitive abilities before treatment was given. On this occasion, some children were less interested in the teacher's story. This can be seen from the total number of 12 children, there are still many children who do not pay attention to the teacher and are busy with their own world, even telling stories with friends beside them, besides that there are some children who cannot answer the teacher's questions. The results of observations obtained during observation activities, show that children still do not have social emotional and cognitive abilities without the help of a teacher. The pre-test results obtained are as follows:

Based on the table above, the acquisition of the value of each indicator of children's social emotional and cognitive development before being given treatment with lemon lime games is still low, this can be seen in the table above. The description of the research results is as follows:

The pre-test research results from the table above can be seen that the pre-test data with a sample size of 12 children obtained a minimum value of 15, a maximum value of 18, a mean of 16.75, a median of 17.00, a Std.deviation of 0.965, and a Variance of 0.932.

3.1.2. Post test

The post test was conducted for four treatments at PAUD Mawar FKIP Unpatti Ambon. The post test was conducted to determine the final state of children's socio-emotional

TABLE 3: Results of Initial Observation (Pre Test) Social Emotional and Cognitive Skills of Children PAUD Mawar FKIP Unpatti Ambon.

No	Name	Observation Results				Total Score
		BB	MB	BSH	BSB	
1	AT	9	4			17
2	CAH	10	1	2		18
3	DR	11	2			15
4	DJM	10	2	1		17
5	FK	10	2	1		17
6	KDK	9	4			17
7	MN	10	3			16
8	MIS	10	2	1		17
9	NS	11	2			15
10	PT	9	3	1		18
11	RWM	10	2	1		17
12	TDS	9	4			17
TOTAL						201

Source: Posttest result data Description: BB (not yet developed)= 1, MB (starting to develop)= 2, BSH (developing as expected)= 3, BSB (developing very well)= 4

TABLE 4: Data Description of Pre-Test Research Results.

Statistics	Pre-Test
Number of Samples	12
Mean	16,75
Median	17,00
Std.deviation	0,965
Variance	0,932
Minimum	15
Maximum	18

Source: SPSS 20 for windows

and cognitive abilities. In this case, the assessment of aspects of children’s socio-emotional and cognitive abilities after treatment. The results of the observations obtained show that children at PAUD Mawar FKIP Unpatti Ambon have experienced an increase in social emotional and cognitive abilities. The value of the post test results obtained in the process of observation in the classroom accompanied by teacher assistance is as follows:

TABLE 5: Results of Final Observation (Post Test) Social Emotional and Cognitive Abilities of Children PAUD Mawar FKIP Unpatti Ambon.

No	Name	Observation Results				Total Score
		BB	MB	BSH	BSB	
1	AT		1	1	11	49
2	CAH			1	12	51
3	DR				13	52
4	DJM			2	11	50
5	FK			3	10	49
6	KDK			1	12	51
7	MN			1	11	49
8	MIS				13	52
9	NS			3	10	49
10	PT			2	11	50
11	RWM		1	1	11	49
12	TDS			3	10	49
TOTAL						600

Source: Posttest result data Description: BB (not yet developed)= 1, MB (starting to develop)= 2, BSH (developing as expected)= 3, BSB (developing very well)= 4

Based on the table above, it can be seen that the acquisition of the value of each indicator of children’s social emotional development before being given treatment/treatment of children’s social emotional development is still low, this can be seen in the table above. The description of the research results is as follows:

TABLE 6: Data Description of Post-Test Research Results.

Statistics	Post-Test
Number of Samples	12
Mean	50,00
Median	49,50
Std.deviation	1,206
Variance	1,455
Minimum	49
Maximum	52

Source: SPSS 20 for windows

The post-test research results from the table above that the post-test data with a sample size of 12 children obtained a minimum value of 49, a maximum value of 52, a

mean of 50.00, a median of 49.50, a Std.deviation of 1.206, and a Variance of 1.455. The following can be seen the difference in pre-test and post-test values of socio-emotional and cognitive abilities of PAUD Mawar FKIP Unpatti Ambon children:

TABLE 7: Recapitulation of Pre-test and Post-test scores of children's socio-emotional and cognitive abilities at PAUD Mawar FKIP Unpatti Ambon.

Statistics	Pre-Test	Post-Test
Number of Samples	12	12
Mean	16,75	50,00
Median	17,00	49,50
Std.deviation	0,965	1,206
Variance	0,932	1,455
Minimum	15	49
Maximum	18	52

In the table above, it can be seen that the value of children's socio-emotional and cognitive abilities at PAUD Mawar FKIP Unpatti Ambon with traditional lemon lime games, before conducting research, obtained pre-test values with a sample size of 12 children obtained a minimum value of 14, a maximum value of 17, a mean of 15.46, a median of 15.00, a Std.deviation of 1.127, and a Variance of 1,269. While after doing the treatment, the minimum post test value is 45, the maximum value is 48, the mean is 46.31, the median is 46.00, the Std.deviation is 1.109, and the Variance is 1.231. Overall, the value of children's social-emotional and cognitive abilities has increased in the post test score. The recapitulation diagram of the value of children's social emotional and cognitive abilities by applying traditional lemon lime games can be seen in the following figure:

a) Normality Test

The normality assumption test was carried out using the one sample Kolmogorov-Smirnov test. The assumption of normality is said to be normally distributed if from the test a significance value of more than 0.05 is obtained. Conversely, if the significance value is less than 0.05, then the assumption of normality is not normally distributed. The following normality test results can be seen in the table below using SPSS 20 software:

TABLE 8: Pre Test and Post Test Normality Test Results.

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	0,352	12	0,000	0,806	12	0,011
Posttest	0,296	12	0,005	0,787	12	0,007

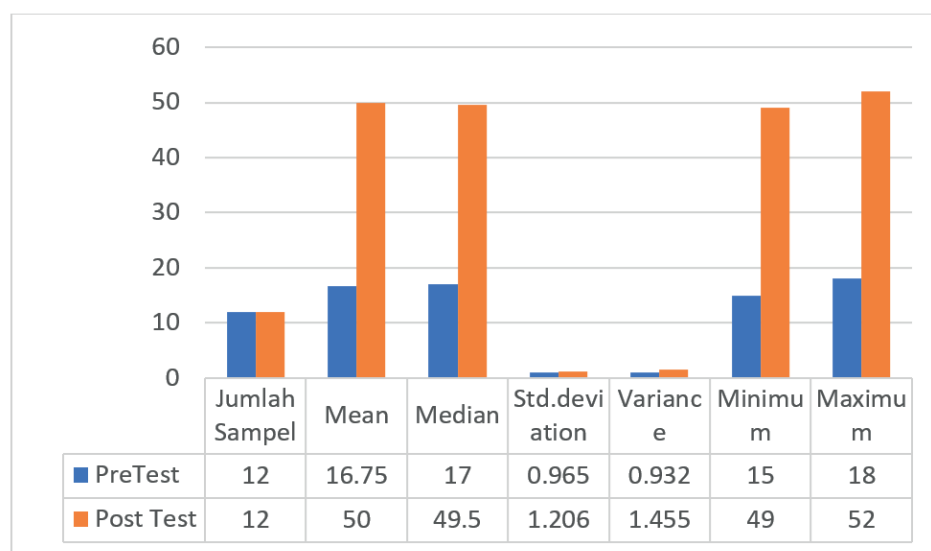


Figure 1: Recapitulation of Children’s Social Emotional and Cognitive Ability Values Using Traditional Lemon Lime Games.

The data in table 7 is data that shows that the results of the normality test of the pre-test and post-test values of children’s socio-emotional and cognitive abilities using the Shapiro Wilk Statistical Product and Service Solution (SPSS) application have a significant 0.011 and 0.007. The significant value in the pre-test and post-test data > 0.05, so it can be concluded that the data from the pre-test and post-test results are normally distributed.

b) t-Test

T-test is one way to determine whether or not there is a difference in the results of the pre-test and post-test in the study. This study used a correlated sample t-test or paired sample t-test, because researchers only used one class as a research sample. The t-test results can be seen in the table below:

TABLE 9: t-Test Results.

Group	Std. deviation	t	Df	Sig,(2-tailed)
Pre-test Post-test	1,545	-74,561	11	0,000

Based on the paired samples t test table, the significance value (2-tailed) 0.000 < 0.05 indicates a significant difference between the pre test and post test. This means that there is a significant effect on the difference in treatment given. In accordance with the criteria if the significant value < 0.05 means that Ho is rejected and Ha is accepted. This means that after the application of learning by using traditional lemon lime games has an effect on children’s socio-emotional and cognitive abilities.

3.2. Discussion

Traditional lemon lime games are proven to be effective in improving children's social emotional and cognitive abilities. It can be seen from the results of the pre test and post test that the average value of children before being given treatment is lower than after being given treatment. The social emotional and cognitive abilities of children at PAUD Mawar FKIP Unpatti Ambon before conducting research, obtained an average pre-test value of 15.46, while the average post-test value was 46.31. Overall, the value of children's social-emotional and cognitive abilities has increased in the post test value. The traditional lemon lime game is carried out by two children forming a hallway with both hands raised into the air and forming the mouth of the hallway. While the other players line up behind and put their hands on the shoulders of the players in front of them.

While walking like a train in and out through the hallway formed by the other players, the players sing the lemon lime song. On the last lyric that is repeated and there is a child (one of the players) who will enter the circle made by the other two children who made the hallway. The child who is caught will be asked a question with an animal theme. For example "name one animal that lives on land...?" then the child answers, after which the child chooses to be a ready man, left or right. Next he will stand behind his master while holding his shoulders. The game continues to be played until all children have been asked a question.

The application of traditional games in learning has succeeded in making learning more interesting and effective in improving student abilities. This is in line with Nur and Juli's opinion that the traditional game of engklek applied to children is effective, this is evidenced by the results of the pre-test and post-test, [7]. It can be seen that the calculation of the average value of children before getting treatment is lower than after getting treatment. The results of the research findings show that there is an effect of traditional lemon lime games on children's social-emotional and cognitive development at PAUD Mawar FKIP Unpati Ambon. This is evident from the results of the t test where the significance value (2-tailed) is $0.000 < 0.05$. Because if the significant value < 0.05 means that H_0 is rejected and H_a is accepted. This means that after the application of learning by using traditional lemon lime games has an effect on children's socio-emotional and cognitive abilities. Thus it can be concluded that traditional lemon lime games have an effect on children's social emotional and cognitive development at PAUD Mawar FKIP Unpati Ambon.

4. CONCLUSIONS

The social-emotional and cognitive abilities of children at PAUD Mawar FKIP Unpatti Ambon before conducting research, obtained an average pre-test value of 15.46, while the average post-test value was 46.31. t test results where the significance value (2-tailed) $0.000 < 0.05$. Because if the significant value < 0.05 means that H_0 is rejected and H_a is accepted. Based on the results of the t test, it shows that traditional lemon lime games have an effect on children's social-emotional and cognitive development at PAUD Mawar FKIP Unpati Ambon.

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