Increase Cooperation Through Token Economy Techniques for Early Childhood 4–6 Years Old

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Abstract. This study aims to determine the effect of the token economy in increasing the cooperation of children 4–6 years old based on the National Standard for Early Childhood Education (PAUD). This research is a quantitative study with the research subjects of two groups of children aged 4–6 years, namely the experimental group and the control group. This research method uses the Quasi-Experimental method with the Non-Equivalent type. The data obtained were processed using SPSS 22 for Windows. The results showed that from the results of the independent sample t-test, the significance value was < 0.05, so it could be stated that there was a significant difference. So it can be said that using the token economy technique can increase cooperation in children aged 4–6 years.

1 Introduction

Children are individuals who have talents and still need to be developed. Children have characteristics that are unique and different from adults and will develop into fully human adults. In this case, the child is an individual who has certain developmental patterns and needs and is different from adults. The process of child development to become an adult human goes through a period of development. The period of child development is a special one, as a period of growth and development of all aspects and functions that exist in the child. These aspects and functions include physical, intellectual and emotional-social development that develop simultaneously and in balance [1]. Early childhood has different behavior and characteristics for each individual. Therefore, training good children's behavior needs to be held from an early age, the goal is to form a generation of people who have good behavior [2].

Early age is the initial and main foundation for children's development in all aspects of growth. Early childhood, cognitive growth and movement must always be properly stimulated because children learn new things and master new types of motion [3]. Childhood is influenced by parents, teachers, and the surrounding environment. School is the second environment for children, in school children relate to PAUD educators and their peers [4].

Social emotional development of children is the sensitivity of children to understand the feelings of others when interacting in everyday life. The level of interaction of

children with other people starts from parents, siblings, playmates, to the wider community. It can be understood that social emotional development cannot be separated from each other. In other words, discussing emotional development must intersect with social development, and vice versa discussing social development must involve emotional, because both are integrated in a complete psychological frame [5].

Education is guidance in the form of influence or information from adults to children. to become an adult. According to Sumantri (2010:118), education is a cultural process to improve human dignity. Education lasts a lifetime and is carried out in the family, community and school environment. Through education, children will gain new knowledge and experiences that are useful for their daily needs [6].

Learning plays a very important role in improving or achieving an achievement. The higher the learning motivation, the higher the intensity and effort, so that the achievement can be achieved. [7] The importance of cooperation for early childhood is to train children's sensitivity, train children's ability to communicate, train children to build relationships and train children to be able to respect others. [8].

Cooperation is an activity carried out group of people together to achieve a goal. The goal factor in cooperation is very important because it will direct all activities and become a benchmark for the success of cooperation that is tied to the goals to be achieved by carrying out activities together to achieve these goals. In teaching and learning, this collaboration is intended between students and students, between students and teachers. Activities carried out can be in the form of project activities, discussions, playing together, and group work. Cooperation in playing which is divided into groups is one way of learning approaches used in this learning process. [8] The ability to work together is one of the abilities in patterns of social behavior (Hurlock, 1978: 262). The more opportunities children have to do something together, the faster the child learns to do it by working together. [9].

Basically, children need continuous encouragement and support, Nuryanti (2008:66) states that one of the teacher's roles in schools is to create a situation that is full of appreciation so that children develop self-confidence and self-concept about themselves and their abilities [10]. The characteristics of a child who can work together according to Sears, et al. (1985: 118) are when the child: can join in group games; can be actively involved in group play; willing to share with his friends; encourage other children to help others; and respond well when someone offers to help. [11].

In today's digital era, many children are more individualistic, this is marked by a lack of social behaviors. Whereas the golden age of early childhood is a period of various growth and development starting and ongoing, such as physiological, language, social emotional, motor, and cognitive development. This early development will be the basis of the child's development at the next stage. From an early age children must be instilled to have a good attitude of cooperation with peers, this can be obtained by children from the family environment.

Education is very important for everyone, including early childhood.[12] Education is inseparable from the learning process, because all educational processes take place through learning activities. Learning that is realized or not, simple or complex, self-study or with the help of educators, learning from educators and the media, learning at school or at home, and the community environment all greatly influence a person's

development. [13]One aspect of development that is very important to optimize in early childhood is the aspect of social development. [14].

Based on the Child Development Achievement Level Standards (STPPA) for children aged 5–6 years, in the aspect of social emotional development, it is stated that children are able to interact and start obeying rules, can control their emotions, can take care of themselves and show self-confidence. [15] Economic tokens are a way or technique for behavior modification by giving a token as soon as possible when the target behavior you want to change appears (Purwanta, 2012; Martin and Pear, 2015; Lessing and Wulfsohn, 2015; Erford, 2016). [16] Follow the rules that have been agreed upon. Education for students who lack discipline is often resolved using violence, even though there are still many efforts that can be made to discipline student behavior without any acts of violence. [17].

Lately, there has been a lot of concern among the public in general about the behavior patterns carried out by some people who are considered to have deviated from the noble values of religion, culture and philosophy [18]. Most parents think that their involvement in children's education, especially early childhood education, is only limited to covering costs, providing infrastructure and various other material needs. But the question mark is whether it is sufficient. In the context of education, parental involvement must cover a wider scope than financing alone [19].

The family is the main and first educational facility in the history of a child's life which is a crucial basis for forming good habits and character for children (Muhsin, 2017). In forming good character for children so that dynamic and harmonious family conditions are needed, this can be achieved if there is close 2-way communication or coordination between children and parents. Habits of children who appear in the family to make adjustments to the example of parents as educators. Parents as the first educators of children in the family are very important because the education that parents get is used as the basis for fostering children's character from an early age, therefore parents must be actively involved or have a responsibility to support and supervise children's education and growth [20].. Parental support and supervision is very important in children's education because not only in school children must receive education but also at home with families, especially mothers and fathers. (Dewi & Widyasari, 2022).

The purpose of the Token Economy according to Miltenberger (2008: 498) is to strengthen the desired behavior. This is done to reduce unpleasant behavior through a structured environment by providing a treatment. In addition to having these goals, one of the benefits of giving awards in the learning process is that it can arouse children's motivation [21]. In principle, rewards encourage children to excel. Token Economy is a system of reinforcement or reinforcement for behavior that is managed and changed, a person must be rewarded/given reinforcement to increase the desired behavior. The main purpose of the Token Economy is to increase desired behavior and reduce unwanted behavior [21].

Based on the description above, this study aims to determine the effect of token economy provision on increasing cooperation in children aged 4–6 years. Researchers tried to compare the results of the pretest and posttest in two groups of children. The two groups of children were divided into two, namely the experimental group and the control group. The experimental group is a group of children who are given a token economy

after successfully doing something. While the control group is a group of children who are only given a reward after clapping. The hypothesis proposed in this study is that there is an effect of providing a token economy on increasing the cooperation of child'en aged 4–6 years.

2   Method

This study used a Quasi-Experimental method with the Non Equivalent type, this study involved two groups. This Quasi-Experimental method was applied to see the differences between the two groups. The first group as the group that was given treatment in the form of giving the token economy and the second group as the control group. The control group was given another treatment, namely in the form of a reward of applause if the child was able to carry out the task well. The data obtained were processed using validity, reliability, normality, and homogeneity test with SPSS 22 for Windows. Data analysis uses paired sample t-test to see the results of using the token economy technique.

3   Result and Discussion

3.1   Data

Description The description of the data in this study presents the data obtained during the pretest and posttest. This study was measured by using a behavior check list which contains 10 statement items. The description of the data for the experimental group and control group at the time of pretest and posttest can be described as follows:

3.2   Pretest

Value data for the experimental group and the control group are presented in the form of a frequency distribution Table 1.

Based on Table 1, it can be seen that the scores with intervals of 1–4 are 22 children and values with intervals of 5–8 are 3 children. The total number of children in the experimental pretest was 25 children.

Based on Table 2, it is known that the scores with intervals of 1–4 are 23 children and those with intervals of 5–8 are 2 children. The total number of children in the control group pretest was 25 children.

Table 1. Pretest of Experimental Group

Interval Values	Frequency
1–4	22
5–8	3
Total	25

Table 2. Distribution Pretest Control Group

Interval	Frequency
1–4	23
5–8	2
Total	25

3.3 Posttest

Value data for the experimental group and the control group are presented in the form of a frequency distribution table.

Based on Table 3, it can be seen that the scores with intervals of 1–4 are 5 children and values with intervals of 5–8 are 20 children. The total number of children at the posttest experiment was 25 children.

Based on Table 4, it can be seen that the scores with intervals of 1–4 are 18 children and values with intervals of 5–8 are 7 children. The total number of children at the posttest experiment was 25 children.

After knowing the pretest and posttest values in the two groups, then the data was processed using descriptive statistics. The following is presented the minimum value, maximum value, range of average values (mean).

Based on Table 5, it can be seen that the results of descriptive statistical processing at the pretest and posttest of both groups. These results indicate that pretest experimental group consisted of 25 data, with minimum data 2, maximum data 5, range (data range) 3, average 3.48. Then the results pretest with 25 data, minimum data 2, maximum data 5, range 3 with an average of 3.44. Processing in posttest the experimental group were 2, with min 3 data, maximum data 8, range 5, with an average of 5.76.processing posttest

Table 3. Distribution Posttest Experimental Group

Interval Values	Frequency
1–4	5
5–8	20
Total	25

Table 4. Distribution Posttest Control Group

Interval Values	Frequency
1–4	5
5–8	20
Total	25

Table 5. Descriptive Statistics Processing Results

	N	Range	Min	Max	Mean
Pretest	25	3	2	5	3,48
Experimental posttest	25	5	3	8	5,76
control pretest	25	3	2	5	3,44
posttest	25	4	2	6	3,88

Table 6. Normality test results

No	Group	Pretest	Posttest
1	Experiment	0.145	0.650
2	Control	0.134	0.117

of the experimental group totaled 25 data with a minimum data of 2, a maximum data of 6, a range of 4 with an average of 3.88.

3.4 Analysis Prequisite Test Results

This study uses an analytical prerequisite test consisting of a normality test and a homogeneity test. Both tests were carried out to determine the data obtained were normally distributed and homogeneous, so that they could be classified as parametric statistics.

3.5 Normality

Test Normality test was conducted to determine that the dependent variable has a normal distribution. The normality test in this study used the Kolmogorov Smirnov, namely the data was declared normal if it had $p > 0.05$. The results of the normality test can be seen in Table 6.

Based on the pretest and posttest both groups stated that the data were normally distributed because $p > 0.05$.

3.6 Homogenity

Test The homogeneity test in this study used Levene test for equality of variance, with the data being declared homogeneous if $p > 0.05$ (Table 7).

Based on the two results obtained homogeneous data, namely $p > 0.05$, it can be concluded that the population in this study has the same variation.

Table 7. Test of Homogeneity of Variances

	Levene Statistics	df1	df2	Sig.
Pretest	,121	1	48	0.729
Posttest	2,368	1	48	0.130

3.7 Hypothesis Test Results Hypothesis

Testing was conducted using paired sample t-test and independent sample t-test. The results of the hypotests test can be seen in Table 8.

The t-test showed that the significance value was > 0.05 so that the data did not have a significant difference. While the posttest the experimental group and the control group is 0.000 and the results of the independent sample t-test test show a significance value of < 0.05 so that it can be stated to have a significant difference. So it can be concluded that using the token economy affects the cooperative behavior of children aged 4–5 years.

Based on Table 9, it can be seen that the average of the experimental group before being given treatment was 3.48 to 5.76 after being given treatment and the significance value of the experimental group before being given treatment and after being given treatment was 0.000. The results of the paired sample t-test show that the significance value is < 0.05, so the data is declared to have a significant difference.techniques token economy affects the cooperative behavior of children aged 4–5 years.

Table 8. Test Results of the Independent Sample T-Test

	Group	N	M	*p*
Pretest	Experiment Control	2 5 2 5	3,4 8 3,4 4	0,868
Posttest	Experiment Control	2 5 2 5	5,7 6 3,8 8	-

Table 9. Results of Paired Sample T-Test

	Mean	N	Std. Dev	Mean	*Sig*
Pretest Experiment	3,48	25	,872	,174	0
Posttes Experiment	5,76	25	1,393	,279	

4   Conclusion

Based on the results of the study with independent sample t-test significance value pretest for the experimental group and the control group was 0.868 and the results of this test showed a significance value > 0.05 so that the data did not have a significant difference. While the posttest is 0.000 and the independent sample t-test test results show a significance value < 0.05 so it can be stated that using the token economy has an effect on increasing the cooperation of children aged 4–6 years. Furthermore, the results of the Paired Sample T-test can be seen that the average value of the experimental group before being given treatment increased from 3.48 to 5.76 after being given the token economy treatment.

Authors' Contribution.   NH prepares games that can be used for child collaboration and MS analyzes the data needed in journals, CW helps in making journals and correcting.

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