

# **IMPLEMENTATION OF TRADITIONAL GAMES WITH MODIFICATIONS IN MATHEMATICS LEARNING FOR EARLY CHILDHOOD**

**Khasa Aulia Kholidah<sup>1</sup>, RR. Deni Widjayatri<sup>2</sup>, Fatihatusyidah<sup>3</sup>, Lizza Suzanti<sup>4</sup>,**

**Esya Anesty Mashudi<sup>5</sup>, Budhi Tristyanto<sup>6</sup>, Pepi Nuroniah<sup>7</sup>**

<sup>1,2,3,4,5,6,7</sup> Universitas Pendidikan Indonesia<sup>1</sup>

email: khasaaulia24@upi.edu<sup>1</sup>, deniwidjayatri@upi.edu<sup>2</sup>, fatihatusyidah@upi.edu<sup>3</sup>,  
lizzasuzanti@upi.edu<sup>4</sup>, esyaanesty@upi.edu<sup>5</sup>, budhi\_tristyanto@upi.edu<sup>6</sup>, pepinuroniah@upi.edu<sup>7</sup>

**Abstract.** The purpose of this study is to cultivate the skill of numbering numbers 1 - 10, and to introduce children to the concept of building space, and children can distinguish large and small sizes through a game of modification of the area Jl. Bojong Raya, Cengkareng, West Jakarta. The method in this study is a qualitative research method with a descriptive approach. The results of the experiment showed that children's skills have improved from achievement indicators Starting to Develop to Developing As Expected in the ability to number numbers 1-10 without having to be guided by researchers and children have been able to distinguish the shape of the size between large and small space buildings, but in terms of recognizing space builds such as balls, beams, and trapezoids of children aged 4-7 years the achievement indicators obtained are from Undeveloped to Starting Flower. The conclusion obtained through this study is that through this modified traditional game, mathematics learning for early childhood is not boring so children's mathematics skills can experience good improvement in accordance with expectations..

Keywords: Traditional Games; Modifying Games; Learning Mathematics

## **INTRODUCTION**

Early childhood is in a period of rapidly increasing development. The term is the golden age. Will accept everything that is seen, heard, and felt so quickly without being able to tell the difference between good things and not that is early childhood. Aspects of early childhood development will continue to improve as the child ages.

This phase of development experienced in early childhood must be balanced in the provision of education from an early age. Early education describes the beginning of education and is known as the golden age or also known as the golden age (Miswara, W, N, & A, 2018) . The Golden Age is the fastest growing period in the life history of a child.

The provision of education to children, is carried out by applying the principle of the play accompanied by learning, not the other way around. Play is defined as a natural action and reflex that children perform with others and make use of the tools around them with joy, freedom, and fantasy, as well as utilizing the senses, hands, or all parts of their body (Santi & Bachtiar, 2020). That Play for children is a means to learn and explore, be able to know the rules, socialize, position yourself, manage emotions, tolerate, cooperate and maintain enthusiasm (NailiRohmah, 2016).

Educators need to provide educational games in play activities to stimulate the growth and development of aspects of child development. The game is not only trendy and modern. Through traditional games, aspects of child development can also improve. Traditional toys have their interpretations to train children's character and skills. It contains noble takrif, namely contained the quality of religion, the quality of education, and behavior and in the future will be useful in the phase of social life (Nurhayati, 2012).

Many traditional toys can be played with. One such game is a traditional game of modified congklak. The game will improve the child's mathematical logic skills. This is supported by the opinions of Saribu and Simanjuntak. According to Saribu and Simanjuntak (2018) with congklak, every child can learn to count while playing (Saribu & Simanjuntak, 2018) . Because with this game, children can learn to count at the beginning. The same thing was also conveyed by Lestaria and Anggreni in their research. Congklak is a game that prioritizes numeracy competence (Lestaria et al., n.d., 2020). Through this game, children can learn counting skills by using congklak seeds.

Stated that using activities in the Congklak game has a positive impact on improving children's ability to recognize the concept of numbers. This research implies that there are differences in children's skills in recognizing the concept of numbers. Children who play congklak have different skills in recognizing the concept of numbers than children who do not participate in congklak game activities.

So, the game contains elements of early mathematical concepts that can be introduced to children. Mathematics is a tool that makes it easier for children to be able to interpret and analyze their world. Mathematical models are descriptions and representations of quantities, forms, spaces, and patterns that can support organized understanding to be systematic regarding knowledge ideas (Novikasari, 2016). The mathematical system is the urgency of human life.

To be able to provide knowledge about basic concepts of mathematics to children, some things can be done, namely with the concept of providing mathematics learning that is exciting and attracts children's attention so that the material can be conveyed optimally.

That mathematics learning for children is a means to expand competence in opinion and motivation to mature their intellectual abilities, facilities to encourage children to behave positively, and build character foundations as early as possible, such as thinking critically, scientifically, logically, and being independent (Mirawati, 2017).

The learning process that is a crucial part of realizing the skills that exist in children so that children can think systematically, and rationally and are good at adapting to new situations with changing times that are increasingly advanced (Letariningrum & Handini, 2017)

With the increasingly advanced learning process and along with the development of technological tools today, traditional games will be increasingly extinct and replaced with technological tools. Even the development of these technologies makes children become proficient and addicted. Those who are still early should not allow that to happen. Introduce various technological tools only but not allowed children to play them indefinitely.

From the description above related to the background and literature review, researchers can formulate that the problem is how the implementation of traditional games is modified in mathematics learning for early childhood and whether traditional games can increase children's knowledge of basic mathematical concepts. From the formulation of n problems, the purpose of writing is to improve the ability to number numbers 1-10, to introduce children to the concept of building space, and children can distinguish large and small sizes through modified congklak games in the Bojong Raya Area, Rawa Buaya Village, Cengkareng District, West Jakarta.

## **METHOD**

The use of methods in this study is a descriptive qualitative research method. The information collected is usually in the form of relevant descriptions or images and arouses the emergence of understanding, not just numbers (Nugrahani, 2014). Researchers focus on information and data that are described in detailed, complete, in-depth sentences with the support of valid information, which is why this qualitative research is often referred to as a descriptive

method. The subjects of this study were children aged 4-7 years with a total of 20 children. The study was conducted 2 times with different places and times. The first research was conducted on 2022, September 24, on Jl. Bojong Raya RT 15/RW 04, West Jakarta. with 10 children. The second research was conducted on 2022, September 27, on Jl. Bojong Raya RT 3/RW 4, West Jakarta. with 10 children. The game is played twice. With the aim of knowing the achievements of child development. Data collection techniques by conducting observations and documentation. The data analysis technique in this study is a data analysis model according to Miles and Huberman, there are three stages, namely; data reduction, data delivery, and conclusion making (Saleh & Upu, 2017).

## **RESULTS AND DISCUSSION**

The results of the study that children are very enthusiastic about doing modified games together with their friends. Carefully and calmly the child listens to the rules of the game conveyed by the researcher. The children played the game from beginning to end in an orderly manner and cooperated with each other.

Some indicators of increasing the child's knowledge of the basic concepts of mathematics are as follows:

### **1. Ability to number numbers 1-10**

In cycle 1 The researcher showed the button number cards to the child in order from 1-10. From button number cards that are one to ten. Each child performs an activity to number the number of buttons on the number card. So that every child will get the same opportunity. Next, each child takes turns choosing a number card freely and placing it in a place that matches its color. The child returns to the activity of numbering the number of buttons on the number card he chooses and the child enters the number of congklak seeds that correspond to the number of buttons.

The results obtained from 20 children studied, 12 children can say that the numbers 1-10 are in the Develop As Expected indicator. And the remaining 8 children had little difficulty in numbering the numbers 1-10. Is in the Start to Develop indicator.

Different results on cycle 2. For the 8 children after being guided and watching their friends carefully during cycle 1, the children can number the numbers 1-10 easily. The achievement indicator changed from Starting to Develop to Developing As Expected.

So, the overall achievement indicators obtained are from Starting to Develop to Developing According to Expectations. Thus, traditional games of modified congklak can improve the ability to number in children.

### **2. The ability to distinguish large and small sizes**

In cycle 1 the total number of children with a total of 20 people already knows and can distinguish between the shape of a small hole and a large hole. Researchers asked children to name what colors of the holes were small and vice versa. The indicators achieved are Developing As Expected. That way, cycle 2 is not held on the second indicator.

### **3. Ability to mention build space**

Researchers showed the children's shape of the space on the board. Cycle 1 no child can answer the form of space wakefulness. Children think that building the space is building flat. Researchers gave children a brief and easy explanation of the difference between flat wake and space building.

In cycle 2 there is an increase in the number of children who can mention the existing space on the board. From the number of 20 undeveloped children, 11 children experienced an increase in achievement indicators, namely starting to develop and 9 children did not increase.

Based on the results of the study, the implementation of traditional games with modifications can be one of the educational game to s for early childhood mathematics learning The results of the research obtained in this game show from the achievement indicators start to develop according to expectations in the ability to number numbers 1-10 without having to be guided by researchers and children can already distinguish the shape of the size between large and small space buildings, but in terms of recognizing space builds such as balls, beams, and trapezoids of children aged 4-7 years, the achievement indicators obtained are from Undeveloped became Beginning to Develop.



Picture 1.1 First research on September 24, 2022  
Picture taken at Jl. Bojong Raya RT 15/RW 04, West Jakarta



Picture 1.2 Second research on September 27, 2022  
Picture taken at Jl. Bojong Raya RT 3/RW 4, West Jakarta

## **CONCLUSIONS AND SUGGESTIONS**

The conclusion is through this experiment, it was concluded that through the implementation of traditional games, modifications in mathematics learning for early childhood

will attract attention and not be boring so that children's math skills can experience good improvement in accordance with expectations. This modified traditional game can be one of the media educational game tools for early childhood.

Suggestion for educators, it is expected to be able to apply traditional games in learning. Many traditional games can that can be used as a reference for mathematics learning in preschoolers. Also, for students and researchers in conducting further research, it can provide other traditional game innovations so that there are more references to traditional games.

#### **REFERENCE BIBLIOGRAPHY**

- Anik Lestarinigrum, M. C. (2017). Analisis Pengembangan Kecerdasan Logis . *Jurnal Pendidikan Usia Dini*.
- Letariningrum, A., & Handini, M. C. (2017). Analisis Pengembangan Kecerdasan Logis. *Jurnal Pendidikan Anak Usia Dini*.
- Mirawati. (2017). Matematika Kreatif: Pembelajaran Matematika Bagi . *Jurnal Anak Usia Dini Dan Pendidikan Anak Usia Dini*.
- Miswara, A. (2018). Pengaruh Permainan Congklak Terhadap .
- Miswara, W, N, & A. (2018). Pengaruh Permainan Congklak Terhadap.
- Nailirohmah. (2016). Bermain Dan Pemanfaatannya Dalam Perkembangan. *Jurnal Tarbawi*.
- Nugrahani, F. (2014). *Metode Penelitian Kualitatif*.
- Nurhayati, I. (2012). Peran Permainan Tradisional Dalam Pembelajaran . *Jurnal Empowerment*.
- Saleh, S., & Upu, H. (2017). *Analisis Data Kualitatif*. Pustaka Ramadhan.
- Santi, & Bachtiar. (2020). Peningkatan Kemampuan Berhitung Anak Melalui. *Jurnal Pemikiran dan Penelitian Pendidikan Anak Usia Dini*.
- Saribu, P. B., & Simanjuntak, J. (2018). Pengaruh Permainan Tradisional Congklak Terhadap. *Jurnal Usia Dini*.