

THE IMPACT OF CONGKLAK GAMES ON THE COGNITIVE DEVELOPMENT OF CHILDREN AGED 5-6 YEARS

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Abstract

Traditional games are one of the concepts of learning while playing. Congklak is one of the traditional games that can stimulate the cognitive development of Early Childhood. This study aims to determine the impact of playing congklak on the cognitive abilities of children aged 5-6 years at Aisyiyah 02 Beruk Kindergarten, Jatiyoso District. By using a descriptive approach and qualitative research. The subjects in this study were teachers and Kindergarten B children, while the objects were 20 children in Kindergarten B class. Data collection techniques in the form of observation, interviews and documentation. Data analysis uses the Miles and Huberman models including data reduction, data presentation, and verification or drawing conclusions. The results of the study stated that the traditional game of congklak can improve cognitive development of early childhood with significant results, namely the results of cycle I showed that out of 20 children, 5 children (25%) had achieved learning mastery. Cycle II showed that out of 20 children, 8 children (40%) had achieved learning mastery. And cycle III shows that out of 20 children, 13 children (65%) have achieved learning mastery

INTRODUCTION

Early childhood education is an effort and action carried out by educators or families with methods of guidance, supervision, care and providing a stimulus so that students' abilities can develop optimally. Based on Permendiknas No. 58 of 2009 concerning Early Childhood Education Standards (PAUD) states that one of the PAUD standards is the standard for the level of developmental achievement, which contains rules for growth and development of early childhood from birth to six years of age.

The development that occurs in children is the stage of behavior change from immature to mature, from simple to complex. This development shows a change in the process of children's learning outcomes from various aspects including through motion, thoughts, feelings and interactions both with objects and with each other in the surrounding environment (Prima, 2018).

Children learn through objects or objects in the surrounding environment. Through existing objects children can get education. With education it is hoped that children will be able to achieve their developmental tasks, according to their abilities, including language, physical, motor, social-emotional and cognitive abilities (Wahyuningsih S. et al, 2019). Cognitive development is a psychological change that can affect a child's thinking ability. Through their thinking abilities, children can explore themselves, other people and other objects such as animals, plants and other objects that can provide knowledge to children (Zukhairina, 2023).

Children's knowledge is obtained from the learning process. The learning process is not always in accordance with the expectations of parents and teachers. There are students who experience difficulties in the learning process. Sulthon (2020) says that children with learning difficulties are children who, judging from their physical appearance, do not experience significant obstacles, but have the ability to see and hear well at school. The child does not show that he has special needs. The way children learn in general, whether they have learning difficulties or not, is through play.

Playing is something that children really like. By playing it is hoped that children can learn easily and have fun. Playing is one of the important means to improve children's development. Playing becomes an activity that is directly and spontaneously carried out by children either alone, with other people or by using objects around them (Santi, Bachtiar, 2020).

Through playing children can express things related to the emotional, affective, feeling, mind and cognitive domains. Through playing, children can be stimulated in aspects of their physical, linguistic, intellectual and behavioral development. The child's way of thinking is at the pre-operational stage so that the learning process requires an introductory source in the form of media. One of the games that can be used as a medium for children's learning is traditional games (Prima P. I., 2018).

Traditional games have developed long enough with the nation's cultural values. However, along with the development of the era, these traditional games are increasingly being forgotten, especially those in urban areas, because there are more and more modern games. One of the causes of the decline of traditional games from the midst of children's lives is gadgets. Watching live television is also something that children prefer more than traditional children's games.

Mulyani (2020) The current reality shows that children's cognitive development is not well coordinated. Cognitive is very important to be developed so that children can explore the surrounding environment through their five senses. To improve children's cognitive development, this can be done through traditional games. One of the traditional games is congklak or commonly called dakon. Namely a game using a congklak board played by two people. In the past, this board was made of elongated wood with 7 holes on each side on the right and left and there were two large holes at the end of the row, which were called main holes. Playing this congklak game really helps stimulate children's cognitive development. So that children get learning experiences that are designed through play activities (Mardiyanti Y, 2022).

Kindergarten is a learning program that must be interesting and fun so that children do not feel that they are learning but are playing. Therefore, early childhood education needs to provide and facilitate various activities that can develop several aspects, including religious moral values, cognitive, language, social emotional, physical and motor skills. The congklak game is a game known by various names throughout Indonesia. The game is played by two people using a board called a congklak board and two seeds called scongklak seeds or congklak fruit. James W. Brown, quoted by Triyuda Devi, Yuline and M. Ali, believes that teaching media are more than just materials and tools, but also the people who provide them and operate them, their use, operation and processing, how the materials and tools themselves interact with good (Suriana, 2022)

Based on the results of an interview with one of the teachers at TK Aisyiyah 02 Beruk, he said that there were some Kindergarten B children who had difficulty recognizing letters, numbers and counting, did not understand the concept of many or few. The teacher also said that so far in dealing with children with learning difficulties, one of them is by using the playing method. However, teachers have never used congklak as a playing tool and children's learning media. The use of local media is still very rare.

The results of the observation showed that some of the cognitive abilities, especially in naming the symbols for numbers 1-10 and using the symbols for counting numbers in the class, were still lacking. When shown four pictures of cats and the child is asked to count them, the child cannot pronounce them correctly unless they are mentioned together with the teacher. Then 1 of them counts 1-5. When shown the number 5, out of 20 children there were 9 children who could say it correctly. When shown green paper, 15 children could say it correctly.

Then when the teacher shows the numbers 8 and 5, the children are asked to say more than or less than, 5 children can say that 8 is more than 5, but most of the children show less ability and tend to get confused unless mentioned with the teacher. Based on this, it can be concluded that the cognitive abilities of children in this group are still lacking. One of the reasons is that the delivery of material that the teacher provides is less interesting, namely by using a lot of the lecture method. Children look bored causing the class to be less conducive. In addition, in providing learning, children still use worksheets and less use of concrete objects. This resulted in not increasing the cognitive abilities of children in that class.

When the teacher showed the congklak game, almost all kindergarten class B children were interested in the congklak game provided by the teacher, but out of 20 children, 15 of them did not know what game it was and how to play it. While 5 of them were familiar with the game of congklak even though they didn't really understand how to play it.

Based on the problems above, the teacher has a very important role in determining child development through various learning processes, one of which is carried out through traditional play activities. From this description, the researcher intends to conduct research with the title "The Impact of Congklak Games on the Cognitive Development of Children Aged 5-6 Years.

Previous research that is relevant to this research is research conducted by Imelda Rosana Milo (2023) with the title "Development of Congklak Traditional Game Tools to Improve Cognitive Ability in Children Aged 5-6 Years". According to Milo (2023) this study aims to explain the design of the Congklak Game Tool in improving cognitive development in children aged 5-6 years at Kober St Paskalis Malakiku. The model in this study is development with the ADDIE model. With the results of the research showing the feasibility level of congklak media, this media is declared suitable for use without revision. In addition, based on direct observation when children are given the opportunity to play, children show happy and enthusiastic expressions, so that it is considered to increase children's learning interest. The difference between this research and my research lies in the design, object and place of research. While the similarity lies in the object of research, namely children aged 5-6 years.

Another research was conducted by Rahmat Divine (2022) with the title "Traditional Games and Their Impact on Students in the city of Samarinda. The research uses a qualitative descriptive method, this study aims to find out what traditional games exist in the city of Samarinda and their impact on students. The results showed that there were games of jumping rope, hide and seek, kite flying, bamboo cannons, congklak and marbles. While the impact of these games is that as a whole it makes it easier for children to socialize with their friends, trains creativity and teaches children to be more sportive in playing. The difference between this research and my research lies in the title and object of the research, where the object is elementary school students, while the object of my research is children aged 5-6 years. This research refers to various kinds of traditional game tools, while my research refers to in the traditional game of congklak.

METHOD

This research uses descriptive qualitative research, which is trying to describe a problem or event and then analyze it. This research was conducted at TK Aisyiyah 02 Beruk in June 2023. According to (Sugiarto, 2015) descriptive research is in-depth qualitative research about individuals, groups, institutions at a certain time. The research subjects were Kindergarten B children, school principals, and teachers at Aisyiyah 02 Beruk Kindergarten. While the object of research is kindergarten class B. Experimental research is research that is intended to determine whether there are effects of treatment on the subjects being investigated. The way to find out is to compare one or more experimental groups that were given treatment with a comparison group that was not given treatment. The quantitative quasi-experimental research method aims to show a cause-and-effect relationship by involving a control group with an experimental group, but the two groups were not chosen randomly. Quasi-experimental research aims to investigate relationships and clarify the causes of events.

Henny (2022) said the data collection techniques in this study included observation, interviews and documentation. The data analysis technique is descriptive qualitative using the Miles and Huberman model (Sugiyono, 2017) including data reduction, data presentation, and verification or drawing Method consist of research design (for a quantitative research approach includes types and research approaches, population, samples, variables; for a qualitative research approach includes types and research approaches, subject and object of research), time and place of research, instrument, data gathering, data analysis. This template already sets the style and formatting for the paper.

RESULTS

The congklak or dakon game is a traditional game using a congklak board which is played by two people. The scope of cognitive development includes recognizing letters and numbers, sorting patterns from small to large patterns and vice versa, knowing cause and effect about their environment, teaching children to be active and creative in investigating events, grouping objects based on shape, color and size and recognizing events. nature in the environment around the child (Paramita N, 2019).

Piaget's stages of cognitive development (Ainul Yaqin, 2020) show that early age plays a very important role because human brain development experiences jumps and develops very rapidly at that age, reaching 80%. Piaget divides children's knowledge into 3 categories, namely: physical knowledge, mathematical logical knowledge, and social knowledge.

In playing congkak, two players must divide 14 child holes and 2 main holes into 2 parts as the center. Next, the players make an agreement to determine which player will run their seeds first. The main way to play congkak is to take the seeds in the hole on the right and run the seeds towards the left until the last seed falls into the main hole. This game will stop if there are no seeds in the bottom hole, because all the seeds have entered the main hole. The winner is the player who collects the most seeds in his core hole. Games have several benefits, namely to train strategies, be sporty, be honest, and to relieve fatigue, to improve children's cognitive abilities, fulfill children's curiosity, provide motivation and design for children to explore. Apart from that, games can be used as a medium to support children's numeracy skills. because the game uses concrete objects in the form of grain. (kompas.com)

Table 1.1 Differences between Traditional and Modern Playing Equipment

No	Aspect	Traditional	Modern
1	Origin of manufacture	Using minimal tools.	Using more advanced technology.
2	Purpose of making	To find pleasure and joy.	To develop children's potential.
3	Shape design	Still manual and simple, especially the colors used.	The shapes tend to be complicated and have more attractive colors.
4	Materials used	Goods in the surrounding area are easy to get and the prices tend to be cheaper.	The materials used come from factories and tend to be more expensive because they contain chemicals.
5	Color composition	Its nature is very simple because it uses natural colors.	Using very attractive colors that can attract the attention of many children.
6	Manufacturing costs	The cost is much cheaper.	The cost is much more expensive
7	Durability	This game is relatively durable if used properly and adheres to the guidelines that have been determined.	If used properly the game tools used will be much more durable, but if used continuously and do not comply with the rules of the game they will quickly become damaged.

So the aspects of traditional or modern games will have their respective advantages and disadvantages, one of the advantages of traditional games is that they are very cheap and easy to find and are able to develop children's cognitive abilities and make children creative, as well as the disadvantages of traditional games in terms of colors are sometimes unattractive, and require more than two people. Furthermore, the benefits of modern games include, in terms of color, sometimes the colors of modern games are very attractive and it is also easier to play. One of the disadvantages of modern games is that they require expensive costs and make children become individuals who always want to win. Differences in the cognitive abilities of each child will be different, depending on their individual development. There are those whose development is very rapid and there are those whose development is slow because they experience obstacles. Implementation of traditional games can influence children's development. This is as stated by one expert that the function of traditional games is to improve physical development, body coordination and develop skills in children.

This learning process certainly has a goal to be achieved. One way that learning objectives can be achieved is by applying learning media as an educational aid in learning process activities both in the classroom and outside the classroom. Choosing the right learning media for the material being taught and the expected competencies is one of the most important things before carrying out classroom learning. Learning media is something that conveys learning material and can stimulate students' thoughts, feelings and desires so that it can encourage the learning process considering that learning media has many benefits. Creative use of media will enable students to learn better and improve their performance in accordance with the goals they want to achieve. So that it can facilitate and improve the teaching and learning process. Then students will direct their attention to the learning material, and the use of media can overcome the limitations of the senses, space and time and provide the same learning experience to students (Kurniasih, R. 2021)

Based on the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 137 of 2014 there are standards National Early Childhood Education includes cognitive aspects aged 5-6 years as follows:

Tabel 1. Level of achievement of cognitive development of children aged 5-6 years.

Scope of Cognitive Development	Level of Developmental Achievement of Children Aged 5-6 Years
A. Learn Problem Solving	<ol style="list-style-type: none"> 1. Demonstrate exploratory and probing activities (such as: what happens if water is spilled) 2. Solve simple problems in everyday life in a flexible and socially acceptable way. 3. Apply knowledge or experience in a new context. 4. Demonstrate a creative attitude in solving problems (ideas, ideas, out of the ordinary)
B. Think Logically	<ol style="list-style-type: none"> 1. Recognize the difference by size: "more than"; "less than"; and "most/most" 2. Shows initiative in choosing the theme of the game (such as: "let's play pretend like birds"). 3. Develop a plan of activities to be carried out. 4. Know the causes and effects of the environment (wind blowing causes leaves to move, water can cause things to get wet) 5. Classify objects by color, shape and size (3 variations) 6. Classify more objects into the same or similar groups, or in pairs of more than two variations. 7. Get to know the ABCD-ABCD pattern 8. Sort objects by size from smallest to largest and or vice versa
c. symbolic thinking	<ol style="list-style-type: none"> 1. Mention the symbols of the numbers 1-10 2. Using the symbols of numbers to count 3. Match the number with the number symbol 4. Get to know the various symbols of vowels and consonants 5. Representing various objects in the form of pictures or writing (there are pencil objects followed by pencil writing)

DISCUSSION

The Standard Level of Achievement of Child Development is in line with the opinion of Jean Piaget who said that the thinking ability and mental strength of a child of a different age means that their intellectual development is also qualitatively different (Ainul Yaqin, 2020). Based on the results of interviews and observations that have been carried out by researchers on children aged 5-6 years at Aisyiyah 02 Beruk Kindergarten, the following results are obtained:

There are 20 children in Kindergarten B class. The percentage of children's cognitive development status before being given the traditional congklak game is 15 children who have not yet developed (BB), while the children in the category starting to develop (MB) are 5 children. From these results it can be concluded that the cognitive ability of children aged 5-6 years is still low.

After being given the congklak game, the results are obtained:

1. The congklak game can improve children's cognitive development with the results of cycle I showing that out of 20 children, 5 children (25%) have achieved learning mastery.
2. Cycle II shows that out of 20 children, 8 children (40%) have achieved learning mastery. There was an increase of 15% in the development of children's symbolic thinking from Cycle I to Cycle II (Lestari et al, 2018); 2) The congklak game can improve children's cognitive development, as evidenced by looking at the results of calculations in every aspect of observation

- Cycle III shows that out of 20 children, 13 children (65%) have achieved learning mastery. There is an increase of 25% in children's cognitive development from Cycle II to Cycle III.

CONCLUSION

Online learning for 2 years has resulted in learning loss among the students of class X, which has had an impact on classroom learning. In the new academic year, students appeared to be less enthusiastic during the learning process, there was a decrease in academic performance compared to the previous academic year, and undesirable attitudes emerged among the students. To address these issues, SMA Al-Islam 1 Surakarta, as a school that promotes the implementation of the Merdeka curriculum, has taken proactive steps to tackle the situation.

The school's efforts consist of strengthening the Pancasila Student Profile Project and implementing differentiated learning. The strengthening of the Pancasila Student Profile Project is carried out through a showcase of works (*gelar karya*) with out-of-classroom learning, while differentiated learning is implemented through diagnostic assessments and equipping teachers to better understand students' learning styles. By undertaking these efforts, the school hopes to restore students' learning motivation and eliminate the learning loss that has occurred in class X. Through the implementation of the Merdeka curriculum and the efforts made by SMA Al-Islam 1 Surakarta, it is expected that the students of class X can recover from the negative impacts of online learning and actively engage in the teaching-learning process once again.

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