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THE EFFECT OF EDUCATIONAL GAMES ON CHILDREN'S COGNITIVE ABILITY AT MANGGIS TK MANGGIS, BULANGO SELATAN DISTRICT BONE BOLANGO DISTRICT

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Abstract:

The purpose of this study was to determine (1) the differences in the cognitive abilities of children playing traditional games and modern games. (2) To find out the interaction between traditional games and modern games on children's cognitive development. (3) To find out which group of children has high cognitive, which gives a high influence between traditional games and modern games. (4) To find out which group of children has low cognitive, which has a high influence between traditional games and modern games. The results of this study show; (a) There are differences in the results of educational games on the cognitive abilities of students who are taught with Modern Games and Traditional Games. Overall, the cognitive development learning outcomes of students taught by modern games are higher than the results of educational games on the cognitive abilities of students taught by traditional games. (b) There is an interaction effect between educational and cognitive games of students on cognitive abilities. (c) For students who have high cognitive abilities, the results of educational games on the cognitive abilities of students who are taught with Modern Games are higher than the results of educational games on the cognitive abilities of students who are taught with Traditional Games. (d) For students who have low cognitive, the results of educational games on the cognitive abilities of students who are taught with traditional games are higher than the results of educational games on the cognitive abilities of students who are taught with modern games.

Keywords: Traditional Games, Modern Games, and Cognitive Ability.

INTRODUCTION

Education is one of the human efforts to expand the horizons of knowledge in order to form values, attitudes and behavior. In addition, education is a conscious effort made so that students can achieve their goals based on the relevance of their knowledge. To achieve these educational goals, serious attention is needed from various parties; either the government, education practitioners, teachers, students, or direct community participation. This can be done in all educational institutions, including in Kindergarten educational institutions. Kindergarten educational institutions must be seriously considered about the quality of their education, because in this institution the "children of the nation" were first introduced to the world of education. That is, if the educational process at this institution is good, it will certainly produce good graduates and the benefits will be felt at the next (level) stage (in elementary school and so on). Therefore, to achieve good graduates, kindergarten schools must have good teaching staff in terms of the application of learning techniques. Because the main focus that is paid attention to in kindergarten children is improving life habits.

Early childhood in the level of achievement of cognitive development, among others, likes to explore to fulfill their curiosity, often ask questions, besides that children also begin to classify various objects based on color, shape, size, type and others. Researchers observed problems in Manggis Kindergarten, South Bulango District, Bone Bolango Regency at the age of 4-6 years. One of the basic abilities that must be developed is the cognitive abilities of 33 children, there are still 23 children who have low cognitive abilities. This can be seen from several indicators, namely: (a) Counting numbers 1 to 10 sequentially, (b) Carrying out an activity that is not sequential, for example before eating, wash your hands first. (c) Sorting objects in various ways according to certain characteristics such as by color, shape, size and others. Cognitive abilities of children at Mangosteen Kindergarten, South Bulango District, Bone Bolango Regency, according to the observations of researchers, it can be stated that there are still conditions in which children are not able to count numbers sequentially, distinguish objects and put them in order. Children's cognitive abilities are very

important to develop considering that children are the next generation of the nation. Early childhood can provide excellent examples of how children play an active role in their own cognitive development, particularly in understanding, explaining, organizing, manipulating, constructing, and predicting. Kindergarten children have difficulty controlling their own attention and memory function, are confused about presenting themselves, are superficial with reality, and focus on one aspect of the experience at a time.

The influence of educational games is very important in creating the process of introducing letters, numbers, colors and shapes to students. This is due to the fact that educational games do not only introduce traditional games but also modern games in the early childhood learning process. The ability of teachers to present learning methods and media to develop children's cognitive has not been maximized, so educational games can be done in attracting students' attention to improve cognitive abilities.

Based on the description above, early childhood is able to think using symbols. Although their way of thinking is still limited by perception and is still focused and rigid, they have started to understand how to classify things based on a simple understanding. Basically, all children really like games, one of which is educational games. There are several kinds of educational games, including traditional games (awuta) and modern games (beams) that can develop children's cognitive abilities. The learning process at Manggis Kindergarten, South Bulango District, Bone Bolango Regency requires the right method of using educational game tools that can be used as a tool to improve cognitive abilities, because learning that does not use game tools has not been able to improve cognitive abilities. A teacher must be professional in using various approaches by using game tools that are appropriate to the level of child development. So tools that can help improve children's cognitive abilities are educational games in the form of traditional games (awuta) and modern games (beams).

Educational games are all forms of games designed to provide an educational experience or learning experience to the players, including traditional and modern games that are given educational and teaching content. On the basis of that understanding, games designed to provide information or instill certain attitudes, for example to foster a spirit of togetherness and mutual cooperation, are included in the category of educational games because they provide cognitive and affective learning experiences. Educational Game Tools are very relevant to be used in learning, because through playing children can improve children's cognitive abilities. This is based on the principle of organizing Early Childhood Education, namely learning while playing, through playing that children can show various potential abilities and talents so that aspects of child development can develop properly. Playing in children has a very important meaning, because through playing, children experience development in all aspects of their lives. Objective conditions based on observations made by researchers at Manggis Kindergarten, South Bulongo District, Bone Bolango Regency, there are various problems in improving children's cognitive development which are still low, namely (1) there are still children who cannot count numbers 1 to 10, (2) there are still children who forget to wash their hands before eating, (3) there are still children who are not able to recognize shapes so that children's understanding is low to sort objects from the smallest to the largest, (4) there are still children who are not able to recognize the color of an object and still, (5) there are children who have not been able to mention the concept of high and low.

Problems in improving children's cognitive abilities can be stated that the ability of some teachers in presenting learning methods in developing cognitive in children has not varied, there are teachers who in teaching pay less attention to children's characteristics so that children's cognitive abilities are reduced, especially in developing children's cognitive abilities, and learning is centered teachers and less opportunity for children to develop cognitive abilities as expected.

Modern educational game tools are a set of play tools that contain educational elements that are designed manually, by utilizing raw materials such as plastic, iron, rubber and wood. Most modern APEs are more individualistic. Examples of modern educational games include toy cars, motorbikes, trains, airplanes made of plastic, wooden number blocks, wooden puzzles, recognizing shapes from wood that are colored more attractively. While traditional APE is an educational game tool inherited from ancestors that has ever existed and has been used in the past to stimulate children's growth and development. As for examples of traditional educational game tools that exist in the community, among others: dakon, stilts, kitiran, kuluk or crown, bekelan and others.

Modern educational game tools have advantages including (1) Easy to obtain instantly (2) More attractive colors and shapes (3) Has many variations (4) Can introduce technology to children. The role of media or game tools in the teaching and learning process is very important because the media is a messenger from several sources to the recipient of the message, so it is appropriate if the teacher has ideas and creativity when carrying out learning. This requires skills to use existing game tools. In accordance with the description above, it is necessary to take action to develop children's cognitive abilities not only by learning or discipline, but teachers who teach in kindergarten are expected to carry out the learning process by using the right media or game tools to achieve the goals or competencies expected in good planning. has been established.

THOERY OF STUDY

1. Traditional Games

According to Bettelheim in Hurlock (2010) the game is an activity that is characterized by requirements and rules that are mutually agreed upon and determined from the outside to carry out an activity in purposeful action. According to Ingrid, the game is "Play, as well as learning, are natural components of children every lives" i.e. playing and learning are components that cannot be separated from each other.31 The game is a contest between players who interact with each other by following the rules. certain rules to achieve certain goals. The game is a way of playing by

following certain rules that can be done individually or in groups in order to achieve certain goals. Traditional is a mental attitude where this mental attitude can respond to various problems in society based on tradition. It contains a methodology or way of thinking and acting that adheres to the guidelines of existing traditions. From the description above, it can be understood that traditional is a system of transformation of important cultural values. That is, if there is a change in society, the community does not necessarily leave the existing tradition. Traditional games are known to have many benefits, which until now must be preserved in the community. Traditional games can bring many benefits, including the following (Mulyani: 2016):

1) For PAUD educators and managers

a) Introducing, preserving as well as increasing the love for cultural heritage and the noble values contained in it, as an educator and manager as well as for their students in the midst of skyrocketing cultural influences and modern technology.

b) Enriching existing learning.

c) Provide a fun learning atmosphere for children, because the activity process stimulates children to help children's physical growth and development.

2) For students

a. Make children more creative and love the environment.

b. Can be used as therapy for children. Because with this traditional game, children can scream, laugh and can control their emotions.

c. Develop children's multiple intelligences (Multiple Intelligences).

3) For the general public

a. Re-introduce traditional games for children in the surrounding environment.

b. Increase the sense of family.

c. Providing cheap and easy play facilities for children.

2. Modern Games

Modern games also have a tremendous impact on people who have played them. The positive impacts of playing modern games include training in physical activity, preventing stress, and increasing ability in learning. There are various kinds of modern games that children can play in order to develop various children's learning abilities, one of which is the block game. Block games are educational game tools using blocks made of colorful wood. In this block game, children will learn to solve simple problems by arranging blocks and also making blocks into something new for children.

According to Tedjasaputra (2011) playing with blocks is the same as building play seen in children aged 3-6 years. In this play activity, children form something, create certain buildings with wooden blocks. So based on the opinion above, the block game is a type of constructivist game or building play. The beams themselves have a variety of different shapes and colors. Playing with blocks is expected to develop children's ability to recognize the concept of numbers, because when a child makes a building, the child will first choose the number of blocks used, which have the same shape, same color and then form it into a building. Block games will affect children in their cognitive development, helping children in the thought process by using the creativity and imagination of the child so that they feel happy when playing with blocks. Thus, it can be concluded that the block game has an effect on children's cognitive abilities.

3. Cognitive Ability

During the golden years, the basic formation of the nervous system had already taken place. At this time, there is a connection between nerve cells. At this time, brain development occurs as a whole in all four parts of the brain, including in each hemisphere. This hemisphere will store the different abilities of children, namely in the right brain and left brain. This ability must be optimized by means of stimulation, the need for play stimulation includes various games that stimulate all the senses (hearing, seeing, touching, smelling, tasting) stimulating fine and gross movements, communicating, social-emotional, independent, thinking and being creative.

Cognitive ability at an early age is an important beginning for further development. Many factors can affect cognitive development, but at least the factors that influence cognitive development, according to Ahmad Susanto (2011: 59-60) are as follows:

a. Heredity Factors

The theory of heredity or nativism was first pioneered by a philosopher, Sechoper Haner, who argues that humans are born with certain potentials that cannot be influenced by the environment. The psychologists Lehrin, Lindzey, and Spuhier argue that the intelligence level of children 75-80% is inherited or a hereditary factor (Ahmad Susanto 2011:58).

b. Environmental factor

The environmental theory pioneered by John Locke is commonly known as the Tabula Rasa theory or often referred to as an empty blackboard. This condition is to describe the condition of the baby when it is born, so it requires experience to be inscribed into the blackboard to shape behavior or personality in later adulthood (Pratisti, 2008:21). So the development of intelligence neuro is very much determined by the experience and knowledge gained from the environment.

c. Maturity

Each organ (physical and psychological) can be said to have matured if it has reached the ability to carry out its respective functions. Maturity is closely related to chronological age (calendar age).

d. Formation

Formation is all circumstances outside a person that can affect the development of intelligence. The formation can be divided into two, namely the formation that is carried out intentionally (formal schools) and the formation that is carried out unintentionally (the influence of the surrounding environment).

e. Interest and talent

Interest can direct action to a goal and is the impetus for that action. Talent can be interpreted as an innate ability, as a potential that still needs to be developed and trained in order to be realized. A person's talent will affect his level of intelligence, which means someone who has a certain talent, it will be easier and faster to learn it.

f. Freedom

Freedom is the freedom of humans to think divergently (spread), that humans can choose certain methods in solving problems, they are also free to choose problems according to their needs.

From this theory, it can be concluded that there are several factors that can influence children's cognitive development with the application of educational game tools, namely environmental factors pioneered by John Locke who is commonly called Tabula Rasa where the development of intelligence nerves is largely determined by experience and knowledge gained from the environment.

RESEARCH METHOD

The research took place at the Manggis Kindergarten, Bulango District, Bone Bolango Regency. The time of the research is planned to be carried out in September-December 2021 for students at the Manggis Kindergarten, Bulango District, Bone Bolango Regency. In this study, the data collected was data on the results of educational games on children's cognitive abilities. The sources of the two types of data are all students who are the research subjects. The data in this study were collected through tests filled out by researchers through observation, namely: 1. Observation of the results of educational games on the cognitive abilities of students. The test results of cognitive abilities are arranged based on themes and basic competencies that refer to the cognitive domain based on Bloom's taxonomy which is included in the cognitive domain from C1 to C6. 2. The approach taken to students during the observation took place. Sugiyono. (2018) Approaches are carried out individually or in groups to find out how much children appreciate the games they play.

RESEARCH RESULTS AND DISCUSSION

In the following section, we will describe the data on the cognitive abilities of students in children's educational games at Manggis Kindergarten, South Bulango District, Bone Bolango Regency. The data of this study were presented in eight groups, namely (1) data on the results of educational games on the cognitive abilities of students who were taught with modern games (A1); (2) data on the results of educational games on the cognitive abilities of students taught by traditional games (A2); (3) data on the results of educational games of students who have high cognitive (B1); (4) data on the results of educational games for students who have low cognitive (B2); (5) data on the results of educational games on the cognitive abilities of students who are taught with modern games and have high cognitive abilities (A1B1); (6) data on the results of educational games on the cognitive abilities of students who are taught with modern games and have low cognitive abilities (A1B2); (7) data on the results of educational games on the cognitive abilities of students who are taught traditional games and have high cognitive abilities (A2B1); (8) data on the results of educational games on the cognitive abilities of students who are taught with traditional games and have low cognitive abilities (A2B2).

Data on the results of educational games on the cognitive abilities of students who are taught with modern games. (Cell A1)

The test instrument for cognitive development learning outcomes with 28 observation items has a theoretical score range of 0 to 28. The score for student learning outcomes taught by modern games is obtained from the answers of 36 students. In this group, the score of the results of educational games on the cognitive abilities of the highest students is 26 and the lowest is 14, the score range is 12, the number of class intervals is 7 and the length of the class interval is 2. The results of the calculations are presented in Appendix 6. Based on this data, a frequency distribution table is made in the table 4.1

Table 4.1. List of Frequency Distribution of Learning Outcomes Data Cognitive Development of Learners Learned by Modern Games (Cell A1)

Class Intervals	Absolute Frequency	Relative Frequency (%)
14 - 15	4	11
16 – 17	6	17
18 – 19	7	19
20 – 21	5	14
22 – 23	8	22
24 – 25	4	11
26 – 27	2	6
Amount	36	100.00

From the data in Table 4.1, the mean (XA1) is 20.00; the median (Me) of 19.90; mode (Mo) of 22.36; and standard deviation (SD) of 3.49. If you pay attention to the price of mode (Mo), median (Me) and average, then based on the norm reference assessment, student learning outcomes tend to be high.

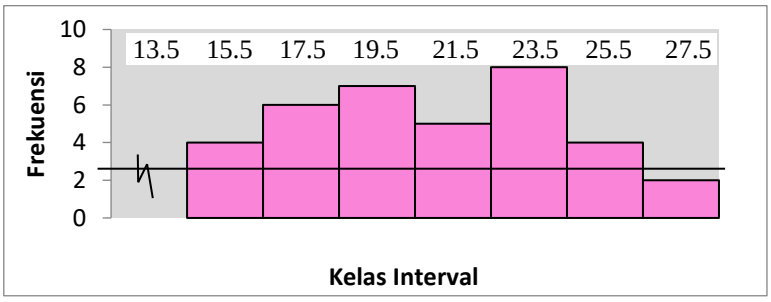

Figure 4.1. Histogram of score data on cognitive development learning outcomes taught by Modern Games (Cell A1)

Data on the results of educational games on the cognitive abilities of students taught by traditional games (Cell A2)

The test results of educational games on cognitive abilities with 28 items of observation have a theoretical score range of 0 to 28. Scores of cognitive development learning outcomes of students taught by traditional games were obtained from the answers of 36 students as respondents.

In this group, the highest score of cognitive development learning outcomes is 25 and the lowest is 12, the score range is 13, the number of class intervals is 7 and the length of the class interval is 2. The calculation results are presented in Appendix 6. Based on this data, a frequency distribution table is made in table 4.2.

Table 4.2. List of Frequency Distribution of Data Results of educational games on cognitive abilities taught by traditional games (Cell A2)

Class Intervals	Absolute Frequency	Relative Frequency (%)
12 - 13	4	11.11
14 - 15	5	13.89
16 - 17	7	19.44
18 - 19	6	16.67
20 - 21	5	13.89
22 - 23	6	16.67
24 - 25	3	8.33
Amount	36	100.00

From the data in Table 4.2, the mean (XA2) is 18.33; the median (Me) is 18.17; mode (Mo) of 16.83; and the standard deviation (SD) of 3.68. If we pay attention to the price of the mode (Mo), the median (Me) and the average, then based on the assessment of the reference norm, the learning outcomes of students' cognitive development scores tend to be low.

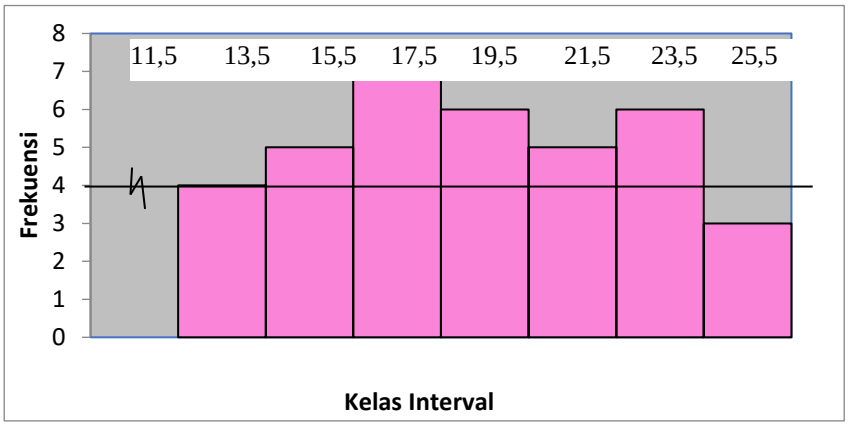

Figure 4.2. Histogram data score of cognitive development learning outcomes of students taught by traditional games (Cell A2)

Data on the results of educational games on the cognitive abilities of students who have high cognitive abilities (Cell B1)

The test results of educational games on cognitive abilities with 28 items of observation have a theoretical score range of 0 to 28. Scores of learning outcomes of students who are taught with modern games are obtained from the answers of 36 students as respondents.

In this group, the highest score of the students' cognitive development learning outcomes was 26 and the lowest was 13, the score range was 13, the number of class intervals was 7 and the class length was interval 2. The calculation results are presented in Appendix 6. Based on this data, a frequency distribution table is made in table 4.3.

Table 4.3. Data Frequency Distribution List The results of educational games on cognitive abilities with High Cognitive (Cell B1)

Class Intervals	Absolute Frequency	Relative Frequency (%)
13 - 14	4	11.11
15 - 16	5	13.89
17 - 18	5	13.89
19 - 20	6	16.67
21 - 22	7	19.94
23 - 24	5	13.89
25 - 26	4	11.11
Amount	36	100.00

From the data in Table 4.3, the mean (XB1)) is 19.61; the median (Me) of 19.83; mode (Mo) of 21.17; and the standard deviation (SD) of 3.76. If you pay attention to the price of the mode (Mo), the median (Me) and the average, then based on the assessment of the reference norm, the student's learning outcomes tend to be high.

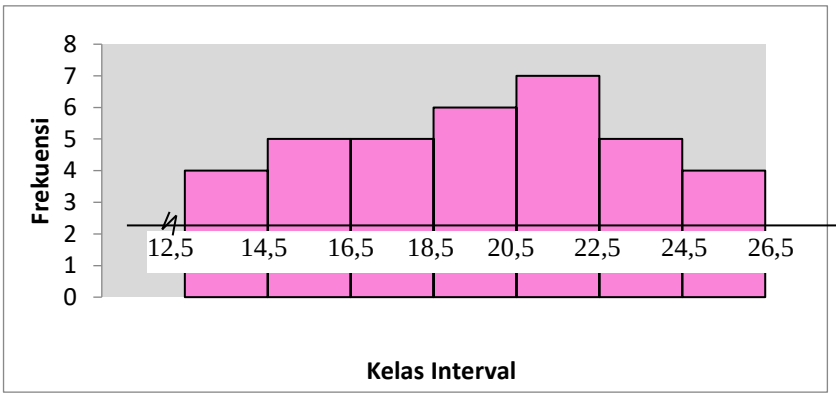

Figure 4.3. Histogram of educational game results data on the cognitive abilities of students who have High Cognitive (Cell B1)

DISCUSSION

The findings or analysis of research data as described previously will be used as a basis for conducting further studies or analysis on why Modern Games are better than Traditional Games, especially in cognitive abilities.

It also needs to be discussed about why students who have high cognitive are tested better than students who have low cognitive on learning outcomes of cognitive development. Similarly, why there is an interaction between educational and cognitive games of students in influencing the learning outcomes of cognitive development.

Educational games are all activities carried out by teachers to create a teaching and learning atmosphere that is conducive to the achievement of learning objectives. In line with this, educational games are descriptions of material components and procedures or methods used to make it easier for students to learn.

The educational game intended in this study serves to provide a brief statement of the main ideas of the subject matter presented, namely cognitive development lessons. A theory of memory reveals that increasing short-term memory to more permanent memory requires a "retrieval" pathway of what has been remembered. The more directed the path, the more real the memory line that is formed. The learning method aims to provide a more directed path to the knowledge that has been remembered and is expected to be able to further deepen the memories obtained.

The results of testing the first hypothesis indicate that there are differences in the cognitive development learning outcomes of students who are taught by modern games and those taught by traditional games. Overall, the provision of modern games on cognitive development learning outcomes is higher than traditional games. The advantages of this giving learning method can be explained based on the functions and learning objectives in the teaching and learning process activities.

This concept formation learning method has advantages in terms of helping students to learn concepts and classify examples. This method requires teachers to make observations to students so as to elicit responses from students. In this learning method, the teacher gives a clue about a concept, and at the same time gives students a series of examples, then the teacher asks students to make other examples.

The results of testing the second hypothesis indicate that there is an interaction between modern games and students' cognitive which has a different effect on learning outcomes for cognitive development. There is an interaction effect showing that between modern games and cognitive abilities have a positive synergy on learning outcomes of cognitive development.

Students who have High Cognitive tend to be able to analyze, synthesize and evaluate the information learned. In addition, they can develop the learning structure presented and are able to solve problems without being guided. Therefore, for students who have high motivation, it is more appropriate to give Modern Games.

On the other hand, students who have low cognitive abilities tend to be less able to separate things that are relevant and irrelevant in a situation, when compared to students who have high cognitive abilities. In addition, students who have low cognitive tend to accept the information as it is and are less able to develop the structure of the material presented. Therefore, for students with low cognitive, it is more appropriate if given traditional games.

The results of testing the third hypothesis from the results of data analysis, it has been proven that there are differences in the cognitive development of students who have high cognitive abilities who are taught with modern games and traditional games. Furthermore, it is proven that the cognitive development learning outcomes of students who have high cognitive abilities who are taught with modern games are higher than students who are taught using traditional games. This is indicated by the number of Tuckey's test which turns out to get a significant result. The application of Modern Games is more appropriate to use in learning cognitive development in students who have High Cognitive.

The results of testing the fourth hypothesis are that students who have low cognitive abilities who are taught by applying traditional games have higher learning outcomes, compared to students who have low cognitive abilities who are taught by applying modern games. Therefore, for students with low cognitive, it is more appropriate if given traditional games.

Referring to the description above, it strengthens the conclusion of this study which states that there is an interaction between educational and cognitive games of students on learning outcomes of cognitive development. This also emphasizes the expression that there is no single educational game that can be used for all circumstances, especially for all types of student characteristics.

CONLUSION

Based on the results of data analysis and hypothesis testing, several conclusions can be drawn in this study as follows:

1. There are differences in the results of educational games on the cognitive abilities of students who are taught with Modern Games and Traditional Games. Overall, the cognitive development learning outcomes of students taught by modern games are higher than the results of educational games on the cognitive abilities of students taught by traditional games.
2. There is an interaction effect between educational and cognitive games of students on cognitive abilities.
3. For students who have high cognitive abilities, the results of educational games on the cognitive abilities of students who are taught with modern games are higher than the results of educational games on the cognitive abilities of students who are taught with traditional games.

4. For students who have low cognitive, the results of educational games on the cognitive abilities of students who are taught with traditional games are higher than the results of educational games on the cognitive abilities of students who are taught with modern games.

REFERENCES

1. Ahmad Susanto (2011) Early childhood development,: Jakarta, Kencana prenada Media Group
2. Aisyah, Siti. 2008. Development and Basic Concepts of Early Childhood Development. Jakarta: Decaprio Open University,
3. Andriani, Tuti. 2012 Traditional Games in Forming Early Childhood Characters; Vol 9, No. 1 http://ejournal.uin-suska.ac.id/index.php/SosialBudaya/article/view/376.
4. Andriani, Tuti. 2012 Traditional Games in Forming Early Childhood Characters; Vol 9, No. 1 http://ejournal.uin-suska.ac.id/index.php/SosialBudaya/article/view/376.
5. Anis Indrawati. (2017). Developing Children's Cognitive Intelligence Through Several Methods. Journal of Psycho Idea, Year 15. No.2, ISSN 1693-1076 Jamaris. (2006). Child Development and Development. Jakarta: Gramedia
6. Anonymous (2016) Super fun traditional Indonesian children's games. Yogyakarta: Press Divas
7. Chambel D. (1997) Developing creativity, Yogyakarta: Kansius
8. Conny R. Semiawan (2004) Early childhood school management, Jakarta: Luxima
9. Daulay, Zainal. (2011) Traditional Knowledge, Jakarta: Rajagrafindo Persada
10. Dimyati and Mudjiona, (2002) Learning and learning, Jakarta: PT Rineka Cipta
11. Directorate General of Out-of-school Education and Youth. (2002) Reference menu of learning in early childhood education (generic learning menu). Ministry of National Education: Jakarta
12. Djamarah (2011) Learning Psychology. Rineka Cipta: Jakarta
13. Eliyawati, Arya. (2010). Cognitive development in children. (on line). (http://ilmupsikologi.wordpress.com/2010/03/31/perkembangan-kognitifpada-anak/, accessed 2 April 2022
14. Hurlock, E.B (1978) Child Development. Jakarta: Erlangga
15. Mulyani N. (2016) The Basics of Early Childhood Education. Yogyakarta: Kalimedia.
16. Munandar, Utami. (2001) Smart and Brilliant. Jakarta: Gramedia
17. Murtafi"atun, (2018), Collection of Traditional Archipelago Games, Yogyakarta: c-klik Media, p. 295
18. Nasirun, M. 2016 Improving gross motor skills through traditional games of jumping frogs. Scientific Journal of Potential, 2016, Vol. 1(1), 56-60
19. Pratisi, D (2008) Early Childhood Psychology. Bogor: PT Index
20. Sujiono Y Nurani et al (2008) Cognitive development methods, Jakarta: The Open University.
21. Sukayati. 2004. Thematic Learning in Elementary School is the Application of. Integrated Learning. Scientific journal of Psychology "ARKHE". Th. 8. No. 2.
22. Sukirman. Resin. 2008. Javanese Traditional Games. Yogyakarta: Kepel Press..
23. Suyadi. 2014 Theory of Early Childhood Learning, Bandung: Perdana Publishing.
24. Suyanto. 2005 Basics of Early Childhood Education, Yogyakarta: Hikayat Publishing.
25. Sugiyono. (2018). Educational Research Methods Quantitative, Qualitative, and R&D Approaches. Bandung : Alphabeta.
26. Tedjasaputra. (2011) Play, Toys and Games Jakarta: PT Grasindo
27. RI Law Number 20 of 2003 concerning the National Education System. Jakarta: Ministry of National Education
28. Wahyu Hidayati. (2014) Efforts to improve cooperation skills through traditional games for group A children in TK ABA Ledok 1 Kulon. Thesis: Yogyakarta State University.
29. Zulkifli. 2011. Developmental Psychology. Bandung: PT Teen Rosdakarya