

# IMPROVING CALCULATING ABILITY WITH MEDIA PUZZLE IN CHILDREN AGED 5-6 YEARS IN RA AL FURQON, PASAWAHAN DISTRICT, PURWAKARTA REGENCY

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**Abstract:** The results of this study are expected to be a motivation for all of us as educators to be able to develop counting techniques using playing methods and image media. This type of research uses an average assessment and an assessment of the success or completeness of children's learning both individually and classically. This type of research is classroom action research (CAR). Based on the results of observations in the first cycle, the results showed that the value obtained by children was still low where the criteria were 60% less, 40% less, 0% enough, 0% good and 0% very good. The overall results of cycle 1 obtained an average value of 44 and this is classified as very poor, while the number of good and excellent criteria is 0% and in cycle 1 it is declared not successful. The results of the classroom action research that have been carried out can be concluded that the puzzle playing activity can improve the ability to number 1-20 in group B 1 RA Al Furgon children in the 2022/2023 academic year and is declared successful.

Keywords: Classroom Action Research, Puzzles, Numbering Techniques.

#### Introduction

Education is a conscious, planned effort to create an atmosphere and learning process so that students can actively develop their potential to have spiritual, religious, emotional, selfcontrol, personality, intelligence, noble character and skills needed by themselves, society, nation and state. (UU Sisdiknas No 20 Tahun 2008 Bab 1).

Early childhood education is a place that provides opportunities for children to develop their own potential, opportunities for developing this potential are mostly carried out in the teaching and learning process. Learning activities for PAUD children are carried out by playing while learning, because of the great value of play in children's lives, the benefits of playing activities in the implementation of PAUD children's activity programs are an absolute requirement that cannot be ignored at all.

With existing games, students are expected to be able to carry out various stimulating activities and encourage the development of their personality, both concerning aspects of skills, intelligence, emotions and social. In addition, by playing, children will know and love the environment and can add insight and understanding of the environment. Learning activities are basically a process of communication. In the communication process, the teacher acts as a communicator whose job is to convey learning messages to children.

In addition, the game is an important vehicle that is needed for children's thinking. Teaching and learning activities can be fun and stimulate children to dare to explore and create new experiences. For this reason, teachers need to be motivated to be creative in making or creating their own learning media as needed. Raudhatul Athfal (RA) has a big role in helping to lay the foundation for children in developing morals, religious values, social-emotional, self-concept, discipline and independence as well as developing physical, cognitive, language and artistic abilities.

Implementation of education in RA aims to provide various habits to children. Habituation is very important for children, including developing an attitude of knowledge and creativity. This for children will be very necessary in an effort to adapt to their environment and for the growth and development of subsequent children.

Puzzle in Indonesian is defined as a guess. A guess is a problem or "enigma" given as entertainment that is usually written about, or done about. Many of the guesswork stems from serious mathematical and logistical problems. Games Puzzle is a form of game that challenges students' creativity and memory more deeply due to the emergence of motivation to always try to solve problems, but it's still fun because it can be repeated. The challenges in this game will always have an addictive effect to always try, try and keep trying until you succeed. Playing can provide opportunities for children to think and act imaginatively and full of imagination which is closely related to the development of children's creativity. The process of child independence will give children more ability to develop their minds to get pleasure and victory from this form of play. The ambition to win the game will provide value for optimizing children's movements and efforts, so that there will be fair and varied competition from children.

Learning methods within the scope of early childhood education put forward the concept of playing for children, so that children's growth and development can be achieved optimally, delivering learning messages from teachers to students, usually using teaching aids in the form of pictures, models or tools others that can provide concrete experiences, motivation to learn and enhance absorption or what we know as visual aids.

In fact, instructional media are often neglected for various reasons, including: limited time to make teaching preparations, difficult to find the right media, unavailability of funds and others. The media used in teaching and learning activities does not have to be purchased, but can be made using materials in the surrounding environment. All facilities and materials in the surrounding environment can be used as teaching and learning resources in Kindergarten.

Teachers in Kindergartens are expected to be more creative in making and creating their own tools needed in learning even with their creativity an educator is expected to be able to use the recycling process for used goods and make it interesting and useful media for children, which of course can pay attention to the stage development.

Many types of media can be used for Kindergarten (TK), namely audio, visual and audio-visual media. Of the three types of media, children will use the functions of their five senses and

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will eventually develop various aspects of intelligence. Audio media that kindergarten children can use, for example, tape recorders and so on. Visual media such as magazines, pictures of animals, puzzles and others. The audiovisual media such as television, animated pictures and others.

Of the various existing media, one of the media that can be made by the teacher himself is a puzzle. Puzzle is a game of arranging pieces of images so that they become a complete picture. This game is certainly a game that everyone knows, maybe even the whole world. With puzzles kindergarten children learn to understand the concepts of shape, color, size and number. Assembling puzzle pieces means remembering the whole picture, then assembling the components into a picture of an object. Playing puzzles trains children to concentrate because they have to concentrate when matching puzzle pieces. In addition, this game improves children's skills in solving simple problems.

The use of puzzle media in learning will be able to create active, creative and fun learning (PAKEM). The lesson material delivered along with the learning media makes it seem as if students are playing so that the learning process is fun.

From the results of the observations, the researchers felt interested in taking the title "Improving Calculating Ability with Puzzle Media in Children Aged 5-6 Years at RA Al Furqon, Pasawahan District, Purwakarta Regency".

The results of this study are expected to motivate all of us as educators to be able to develop counting techniques using playing methods and media images.

#### Methods

This type of research uses an average assessment and assessment of the success or completeness of children's learning both individually and classically. This type of research is classroom action research (CAR). The determination of the research design was based on the researcher's desire to improve the ability to count 1-20 through a puzzle game in group B RA Al Furqon children. According to Arikunto, et al (2009: 2) that classroom action research (PTK) is an examination of learning activities in the form of an action that is deliberately raised and occurs in a class together.

Subjects of Classroom Action Research (CAR) conducted at RA Al Furqon Pasawahan in Semester I of the 2022/2023 Academic Year. There are 15 students in group B 1 consisting of 6 boys and 11 girls. The object of Classroom Action Research (PTK) at RA Al Furqon is group B 1 aged 5-6 years, totaling 15 children

This study uses a class action research design (CAR). The determination of the research design was based on the researcher's desire to improve the mathematical abilities of RA Al Furqon's children. According to Arikunto (2009: 3) PTK is an examination of learning activities in the form of an action that is deliberately raised and occurs in a class together.

According to Suharsini Arikunto (2009: 126), data research instruments are tools that are selected and used by researchers in their activities to collect data so that these activities become systematic and made easier by them. In this study, researchers used a checklist observation sheet and documentation. Sanjaya (2011: 84) states that a research instrument is a tool that can be used to collect research data. The instruments used in this research are observation and documentation.

In this study, data collection techniques were carried out through direct observation by researchers by directly recording the abilities of the children to be observed. According to Wina Sanjaya (2009: 86), observation is a data collection technique by observing every ongoing event and recording it with an observation tool about the things to be studied.

To determine the effectiveness of a method in learning activities, in this classroom action research used qualitative description analysis and quantitative analysis. Analysis of qualitative descriptive data is a research method that aims to determine the extent to which children are involved in together assembling puzzle pieces, while analysis of quantitative data is to find out

the average increase in children's learning outcomes. Percentage will be analyzed using descriptive statistics presented in the form of tables or graphs.

This data analysis technique was used in order to find out the increase in the ability to count 1 - 10 through a puzzle game in group B 1 RA Al Furqon.

#### Discussion

Planning in cycle 1 before the teaching and learning process takes place, begins with planning the learning that will be defined in the teaching and learning process, namely making a Weekly Learning Implementation Plan (RPPM) adapted to the theme and sub-themes, then preparing puzzle media, teacher and child assessment instrument sheets and sheets evaluate each stage of the assessment to find out the results of the classroom action research. In cycle 1, the researcher focuses on the media used without the guidance of the class teacher, this is intended to find out how far the child's interest is in learning to use puzzle media.

Implementation Stage of Cycle I Actions, learning activities carried out for 3 meetings. The process of learning mathematics is carried out through puzzle games. In cycle 1, the teacher explains how to play the puzzle, then the child can continue on his own. When the learning activities take place the researcher who also acts as a teacher with friends makes observations of all children's activities, by noting matters relating to the aspects to be studied using observation sheets and learning outcomes assessment sheets. At the end of the learning activities in cycle I, reflection was carried out on the implementation of learning activities, the researcher conducted an evaluation to find out to what extent the use of puzzle media could motivate children to learn mathematics by looking at the average development of children in the class. Furthermore, the deficiencies that occurred in cycle I will be corrected in cycle II.

Then after the first cycle is completed, it is continued with cycle II, if in cycle I the aspects studied have not reached the target to be achieved, then continue with carrying out cycle II. The preparations made are the same as in cycle I, the methods and media used are also the same, but so that the aspects studied can be achieved according to the target, the methods and media used will be added and improved along with teacher guidance as an effort to improve from cycle I. In this cycle II, learning activities were carried out in 3 meetings, namely by using a puzzle game accompanied by guidance from the teacher, motivating children, creating a more varied and fun learning atmosphere so that the deficiencies that occurred in cycle I could be corrected.

At this stage of cycle II, researchers observed children's activities and monitored children in carrying out mathematics learning activities through puzzle games. All matters relating to the aspects to be studied are recorded using observation sheets and learning outcomes assessment sheets. The results of the data obtained at the observation and evaluation stages in both cycle I and cycle II were then analyzed to find out that through puzzle games can improve children's numeracy skills 1-15.

If the results of learning in cycle II are not satisfactory, then cycle III is carried out using the same methods and game tools, but redevelops aspects that are lacking based on the evaluation results in cycle II and ends by evaluating the results of learning cycle III.

The aspects studied in children in each cycle are:

- a). Able to recognize the symbols of numbers 1-10
- b). Be able to name the symbols of the numbers 1-10
- c). Count sequentially 1-10
- d). Able to count the number of objects

Based on the results of observations in cycle I, the results showed that the values

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obtained by children were still low where the criteria were very poor 60%, less 40%, sufficient 0%, good 0% and very good 0%. The overall results of cycle 1 obtained an average value of 44 and this was classified as very poor, while the number of good and very good criteria was 0% and in cycle 1 this was declared not successful. This is because the puzzle images are less attractive and the written numbers are too small. After making improvements in cycle II the researchers noted an increase where in cycle II the research results were obtained with the criteria of very poor 15%, less 20%, sufficient 30%, good 30% and very good 5%.

The overall results of cycle II obtained an average value of 63 and this was classified as sufficient, while the number of criteria for good was 30% and very good 5% and in cycle II it was declared not successful either. This is because the teacher conveys the purpose and sequence of playing the puzzle only once and gives examples too quickly, the language used is not well understood by children, there are also children who are still afraid and don't follow orders. Therefore, improvements are needed in an effort to improve the ability to count 1-15 children by playing puzzles in the next cycle. Thank God, in cycle III, everyone played puzzles so that the children in class B 1 RA Al Furqon were enthusiastic about playing puzzles, and their results increased from the previous results.

#### **Conclusion and Recommendations**

Based on the results of classroom action research that has been carried out at RA Al Furqon Pasawahan to students in class B 1, through the media of puzzle learning it can be concluded that the activity of playing puzzles can improve the ability to count 1-20 in group B 1 RA Al Furqon children in the 2022/2023 Academic Year and declared successful.

Learning can be seen from the motivation and stimulation given to students to improve development and learning outcomes. Therefore the researcher suggests that teachers can provide inspiration to explore and create innovative learning models and optimize all potential around Kindergartens, it is proven that playing puzzles can improve teachers' ability to develop numeracy skills in children. For parents, it can increase their attention to children's learning activities both in terms of providing guidance, giving advice, giving encouragement, providing supervision, as well as equipment for children's learning facilities. In addition, parents should always pay attention to and develop their children's learning attitudes in a better direction. Thus it will increase children's interest and motivation in learning so that children are passionate about acquiring knowledge when the learning process takes place.

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