Children's Problem Solving Abilities In Pattern Play Material

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ABSTRACT

One of the abilities that must be developed from an early age is problem solving ability. With this ability, children can develop their thinking skills in solving problems. This problem solving ability aims to overcome their problems in overcoming problems in everyday life. Problem solving ability is related to how children think, understand, remember, the ability to solve problems and make decisions. The focus of this study is the analysis of children's problem solving abilities in playing patterns. The purpose of this study is to determine the problem solving abilities of early childhood. The research design used in this study is a qualitative research design with a case study method. Data collection techniques use observation and interviews. Data analysis techniques use thematic design analysis of data collection, data selection, presenting, and drawing conclusions. The results of the study show problem solving abilities in early childhood through playing patterns, namely playing color patterns, children are able to observe, experiment, compare, and communicate to teachers and peers when a problem occurs while playing**.**

Keywords:
Problem Solving Ability, Pattern Play, Early Childhood

Introduction

Early Childhood can be interpreted as children who are in the age range of 0-6 years. Meanwhile, according to education experts, early childhood is in the age range of 0-8 years. According to Mansur in (Munisa, 2024) early childhood is a group that is in the process of growth and development that is unique. At this age, all aspects of child development are very important to be given stimulus according to the level of growth and development abilities. This is in line with the opinion of Idris in (Utami, et al., 2023) who said that the characteristics of Early Childhood (0-8 years) are behaviors that show the process of growth and development, so they require stimulation at every stage of growth and development. This period is often referred to as the golden age, because children experience very rapid growth and development and will not be replaced in the future.

Aspects of early childhood development that require stimulation include aspects of religious-moral development, physical motor, language, social emotional, cognitive, and art. Of the six aspects, one of the developments that educators and parents need to pay attention to is the cognitive aspect.

Gardner in (Utami, 2017) states that cognitive or intelligence is thinking that is used well and quickly by someone to overcome conditions and solve problems.

Of the many cognitive abilities, the ability that must be developed by parents and educators from an early age is problem solving ability. This ability is where children can develop their thinking skills and creativity in solving problems, and children still need someone, be it an educator or an adult, to apply it in their daily lives. According to Britz (Sanusi, 2020), problem solving is the first step that must be developed, encouraged, appreciated, and encouraged to children because problem solving will definitely be in their daily lives. According to Ahmadi (2005), problem solving is an intellectual process in early childhood when they encounter a problem and then a problem solving appears in the form of a decision, action and thought by the child. If the child does not have a solution or common ground, they will think again from the beginning to get an understanding of the problem that the child will face.

In accordance with the characteristics of their learning methods, problem solving skills in early childhood can be done through play activities. Erick Erikson in (R Nofianti, 2021) playing helps every child develop a sense of self-esteem. The reason is that by playing, children gain the ability to control their bodies, control and understand objects, and learn social skills. Playing is a way and path for children to think and solve problems. Meanwhile, according to Sukiman in (R Widya, 2021) it is stated that along with the development of the era, the method of playing in the world of children has progressed very rapidly.

One of the games that can develop problem solving in early childhood is by playing patterns. Playing patterns (patterning) is an arrangement of objects, movements, parts, sounds, and colors that can be repeated (Sujiono, 2007). Learning the concept of patterns must be adjusted to the level of developmental achievement of early childhood. According to the Child Development Achievement Level Standard (STPPA) Number 137 of 2014, the age of 5-6 years where children can solve very simple problems in everyday life in an easy and acceptable way in their environment, classify objects by color, and size, recognize abc-abc patterns, and sort objects that are the smallest to the largest and vice versa. There are many ways to introduce patterns to children without eliminating the element of play, that we can know that early childhood learns through play.

From the results of observations conducted on August 24, 2023, the initial stage carried out was to directly observe the teacher's teaching and learning activities. The children observed during the observation were 12 children, including 5 boys and 7 girls. However, among the 12 students, there were still some students who experienced problem solving development that tended to be undeveloped. The development of students aged 5-6 years during the observation process was

observed that the development of children's problem solving was still very lacking, indicated by the lack of children's problem solving abilities in puzzle-making activities, stacking blocks, and also in maze activities. In puzzle-making activities, children have not been able to arrange the puzzle pieces correctly and have not been able to complete the appropriate puzzle shape. In other activities such as stacking blocks, children have not been able to group the size of the blocks and also in maze activities where children have not been able to find the correct and easy trail to a point in a place.

Based on this, the researcher will implement problem solving ability activities through playing patterns (Pattern) where the tools and materials used are easily obtained and safe for use by students. Simple experiments are an interesting, fun and efficient learning method.

Method

This study uses a descriptive qualitative approach. According to Sugiyono (2020) the descriptive qualitative research method is the collection of data in the form of words or pictures, so it does not emphasize numbers. The data collected after being analyzed is then described so that it is easy for others to understand. This study aims to provide an overview, describe and interpret the existing conditions related to Problem Solving Skills in Early Childhood Through Pattern Playing at Ra Amalia Darma, Sunggal District, Deli Serdang Regency.

Data collection techniques using observation, interviews, and documentation. Data analysis techniques using thematic design analysis of data collection, data selection, presenting, and drawing conclusions.

Results and Discussion

At an early age, children need to be given and developed problem solving skills in various very simple ways. The first observation was done in a simple way about playing color patterns in children. In this first observation, children are already able to read and think. Children are able to observe the pictures given to them, then children think about how they are able to make patterns without making mistakes. From the results of observations by researchers in the field, children are already able to read and think and express their thoughts into patterns.

In another observation, the child made a mistake in making the next pattern. However, the child made an observation by looking at his friend's and trying to compare his pattern and it turned out to be not sequential. Thus, the child is able and uses his skills in observing and observing about finding solutions to solve a problem. Children begin to use their cognitive to think in solving a problem. Gardner (Susanto, 2011), argues that a person's cognitive is used precisely and quickly in finding solutions to be solved. This problem solving is an activity related to the way out towards the expected

condition. Therefore, children are given full opportunity to solve their problems in a simple way through observing, planning, and making decisions.

In the next stage, children find out and get information from teachers and friends. Children start looking for information to find a solution that can be solved by asking their teachers and friends so that children can solve their problems in pattern play activities. According to Brewer & Scully's view in (Syaodih, 2018) problem solving in children is grouping, experimenting, concluding, connecting, and using information. Children solve their own problems by trying to get information that will solve their problems while playing.

Greeno (Dewi, 2020) there are three types of problems consisting of (1) problems that are structural in nature in children (problems of inducing structure), where cognitive abilities to build understanding in early childhood. The child's main task is to find patterns of relationships between elements presented in the problem. (2) problems that are transformational in nature (problems of transformation), transformation problems have certain goals and conditions and goals and a series of procedures that result in changes in the situation. Problem solving in early childhood in this problem, children find problems and change them into new solutions with their creative ideas. Where in this problem the child's task is expected to have the skills to think of ideas and develop strategies with the aim of analyzing a problem (means-end analysis). (3) problems that are structuring in nature (problems of arrangement), this problem is related to structuring or arranging where problems that have several elements and require children to arrange and organize these elements with existing criteria.

Various problems occur when children play block patterns, characterized by buildings collapsing quickly, patterns disappearing, the shape of one room pattern is different from the others, the house does not have a living room and so on. However, children are still able to find solutions to these problems by doing several stages of problem solving and children's curiosity in thinking and finding solutions to solve these problems is very large.

Early childhood problem solving skills will develop well according to the stages if they are in a supportive environment to trigger their thinking. Children's problem solving skills will increase if there is help from the environment and stimulate children with fun activities. So, parents and teachers and playmates help children's cognitive development. The role of teachers is also very important in improving problem solving in early childhood starting from teachers expressing problems, and they should confront the problem with the child.

In each meeting, the development of children's problem solving is seen when the teacher provides interesting media. This is in line with the opinion of (S Rozana et al., 2024) that one

alternative that can be done by teachers is to prepare learning using interesting media, easy to find and follow by children. So that problem solving in children can develop as expected.

Conclusion

The ability to solve problems in early childhood through playing with color patterns (patterns) children is able to experiment, observe the results of playing color patterns, compare the order of color patterns with classmates, children are able to communicate the results of the color pattern sequence with their teachers and peers why the results of the color pattern sequence can be different and the child can overcome a problem. In the second observation, early childhood problem solving skills in overcoming problems through pattern play that problem solving skills in children when playing block patterns have five stages of problem solving, namely the reading and thinking stage of children who are able to observe a picture and pour into playing blocks, the stage of exploring and planning children are able to organize information by observing the shapes of building patterns and children will plan The building shapes the house as they want it to be and the child is able to organize what is seen in the picture and the child combines his observation and imagination. Furthermore, the stage of choosing a strategy for children is able to make a strategy in building a house from various forms of blocks and categorizing problems into simple problems. The stage of finding answers is able to find answers why the shape of the room pattern is different from the shape of the other room pattern and the blocks arranged in the room are six while the other room has 7 blocks. The reflection and development stage of the child finds alternative solutions, pours ideas on what he does in the learning process during play activities, develops answers to other situations, discusses answers to friends and teachers. It is hoped that the next researcher will be able to improve other games that can improve aspects of child development

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