


# Analysis of Constructivism Learning Model in Improving Cognitive in Elementary School Age Children

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## Abstract

The learning process certainly has its own way of achieving a learning goal. As is the case with the learning model applied at SDN 32 to achieve learning objectives. The formulation of the problem raised by the researcher is, 1) how is the constructivism learning process at SDN 32 Rejang Lebong? 2) what are the teachers' views on constructivism learning? and 3) what are the obstacles in implementing constructivism learning. The purpose of the research is to find out the constructivism learning model in improving cognitive in elementary school children. The research design of this study is qualitative research that uses observation checklists, interviews, and notes as instruments to collect data. The population in this study was 200 people consisting of 20 teachers and 180 students of SDN 32 Rejang Lebong. The sampling technique was non-random sampling technique. The results found based on the results of observations and interviews are the implementation of constructivism learning is successfully applied to high grade elementary school children and has not been effectively applied to low grade children. In addition, teachers also gave positive responses to constructivism learning, namely with this learning, children become active and make more effort to gain knowledge. The obstacles found are the lack of facilities and infrastructure in the learning process.

## A. Introduction

Education is an effort made by humans to gain knowledge. Education prepares students towards maturity, high skills, personality or noble character, thinking intelligence through guidance and human training and as members of society in order to achieve perfect safety and happiness (Adi, 2022). In the Legislation on the Education System No.20 of 2003, says that education is "a conscious and planned effort to create an atmosphere of learning and learning so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character and skills needed by themselves and society". According to the Indonesian Language Dictionary (KBBI), the word education comes from the word "didik" and gets the affix "pe" and the suffix "an", so this word has the meaning of a method, way or act of guiding. Teaching can also be interpreted as a way of changing ethics and behavior by individuals or social in an effort to realize independence in order to mature or mature humans through educational efforts, learning, guidance and coaching (Pristiwanti et al., 2022).

Education is inseparable from learning activities. Learning is an activity that can never be separated from human life, learning occurs when there is interaction between individuals and the environment, both the physical environment and the social environment (Lase & Halawa, 2022). Learning can be done through various theories and approaches according to certain characteristics of the learner. An individual's learning experiences shape a unique perspective on the educational process that influences decisions as an administrator, manager or policy maker. For example, teachers often treat their students the same way they

treated others in their childhood. Thus, one's approach to education determines one's performance and practice inside or outside the classroom.

Conversely, it is also possible to help teachers and others to see the perspectives of others if they make it possible to understand the background psychological and pedagogical thinking behind which new ideas emerge. This is very important to facilitate the desired changes in the teaching process (Shah, 2019). There are various models of approaches that can be used in the learning process, namely behaviorism, cognitive, and constructivism.

Constructivism is an alternative approach model that is able to answer the shortcomings of behaviorism. Simply put, constructivism, pioneered by J. Piaget, assumes that knowledge is a construction (formation) of us who analyze something. Someone who learns means forming a sense of knowledge actively (not just receiving from the teacher) and continuously. According to constructivism learning theory, knowledge cannot just be transferred from teacher to student. This means that learners must be mentally active in building their knowledge structure based on their cognitive maturity (Masgumelar & Mustafa, 2021). According to Bada & Olusegun (2015) constructivism is an approach to teaching and learning based on the premise that cognition (learning) is the result of "mental construction". In other words, students learn by fitting new information to what they already know. Constructivists believe that learning is influenced by the context of an idea. Constructivism is a learning theory found in psychology that explains how people can acquire and explain knowledge. Therefore, this theory can be applied directly in education.

Of course the cognitive work processes of children and adults are different. This is in line with the research presented by Bujuri (2018) which said the cognitive abilities of elementary school children are certainly not comparable to those of adolescents and adults. In general, cognitive abilities of elementary school children are still limited to specific and real fields, for example, children aged 6-7 years already understand that a glass can break when it is hit on the floor, but children cannot answer the cause of the glass breaking scientifically. Elementary school children have difficulty thinking about abstract things, such as children aged 7-9 being asked why the earth revolves around the sun. Children will find it difficult, even confused to answer the question scientifically and if forced, children will feel stressed, because their cognitive abilities have not yet reached the stage of complex thinking.

Several studies have examined constructivism learning. Previous studies have similarities and differences. First, Mulyadi (2022) conducted research on constructivism learning, this learning process gives freedom to humans who want to learn or find their needs with the ability to find their wants or needs with the help of others. According to Sugrah (2019), learning can occur through students' active involvement in the construction of meaning and knowledge. In summary, previous researchers discussed giving children freedom in learning and involving children to be active in learning, researchers also used qualitative research. The difference between this research from previous researchers is the object and the results of the learning process itself.

Seeing the explanation above, the researcher chose the object of research at SD Negeri 32 Rejang Lebong. Where the elementary school applies constructivism learning to children with elementary school age. Therefore, the researcher felt interested in examining how effective constructivism learning is applied to elementary school-age children. The formulation of the problems in this study are 1) How is the constructivism learning process at SDN 32 Rejang Lebong? 2) How do teachers view constructivism learning? 3) What are the obstacles in implementing constructivism learning? This question is in line with the objectives of the research to be studied. The benefits of research for teachers are that it can be a reference in teaching and a place to share knowledge.

## **B. Research Methods**

This research is a qualitative research. This research wants to analyze the constructivism learning model in improving cognition in elementary school-age children. Qualitative research is a type of research where data collection is done in the field (Lexy J. Moleong, 2007). The population in this study was 200 people consisting of 20 teachers and 180 students of SDN 32 Rejang Lebong. The sampling technique was non-random sampling technique. This research used in-depth interviews. Interview questions were prepared based on theories related to the research title. The interview questions have been validated by experts from IAIN Curup Bengkulu. The interview questions totaled 3 questions. All questions were declared fit for use by the experts. The interview results were analyzed using qualitative data analysis, namely data collection and data reduction. Data analysis is the process of systematically searching and compiling the data obtained (Sugiyono, 2010).

## C. Result and Discussion

### Result

The research findings refer to the research questions, namely: How is the learning process of constructivism? (2) How do teachers view the implementation of constructivism learning? (3) What are the obstacles to the implementation of constructivism learning? The findings can be illustrated as follows:

#### 1. Constructivism Learning Process

The learning process of constructivism is based on observation and recording. First, observations were made in grades 4,5 and 6 at SDN 32 Rejang Lebong. During the learning process, the learning activities were conducive. This was shown when the teacher asked questions about the material discussed, students enthusiastically answered and explained what they knew about the material. When the learning process ended, the teacher also gave instructions to the children to find out about the material that would be discussed at the next meeting. The obstacles found were that the class was a little noisy and the teacher was also exhausted in conducting the class.

Second, observations were made in grades 1, 2 and 3. The results obtained were different from the results in the higher grades. The constructivism learning process in the classroom caused children to be passive. This was shown when the teacher gave questions and grids of material to be discussed, only a few of the children managed to answer and dare to argue. The observation also showed that the teacher approached some children who did not even want to learn at all. Not only that, every day it is the teacher who initiates the presentation of the material and the teacher always tries to invite children to be active in the classroom. In summary, the implementation process of constructivism learning in the high class went well although there were some obstacles and in the low class it did not go well.

#### 2. Teachers' Views on the Implementation of Constructivism Learning

Based on interviews with several class teachers at SDN 32 Rejang Lebong, some gave a positive response to the implementation of Constructivism Learning.

Usually I use a learning model that is tailored to the conditions, I have applied this learning, however, I feel overwhelmed to conduct the class because the children are noisy and less effective in learning because at this time they play a lot rather than learning. (Informant 2) At first I used this learning model, the results I got were only very few children who could be active in learning. I always give stimulus to the children in class so that they want to talk. This makes me not too often only occasionally so that children learn to think critically. (Informant 3) In my opinion, I am happy to apply constructivism learning because lately children's competitiveness in learning has increased. When I make an announcement that tomorrow they will learn a material and ask them to find out, the next day they answer each other quickly and dare to argue. (Informant 4) Yes, I often use constructivism type of learning. My class becomes lively and passionate about learning.

The conclusion from the informants' answers is that there are positive and negative responses. This is supported by the statement I am happy and on the contrary I find it difficult.

#### 3. Constraints on the implementation of constructivism learning

From the results of interviews that have been conducted, the results obtained, the obstacles faced by teachers are not all children at the level have the same enthusiasm and creativity in learning so when using this learning model it is less effective in low-grade children. Then for the field of facilities and infrastructure in education in schools is inadequate such as the center of knowledge, namely the library, then digital-based learning and different low-grade children where they are very dependent on the teacher who teaches them. They have not been able to find their own movements.

### Discussion

Learning models are very important for teachers to use in teaching in class. This discussion is divided into three parts based on the research objectives, namely: The process of implementing constructivism learning, teachers' views on constructivism learning model and obstacles in learning constructivism learning.

First, the process of implementing constructivism learning. The implementation of this learning model is good for the high grades and not good for the low grades. This learning can make high-grade children more

enthusiastic and active in learning. As defined by Naufal (2021) this learning focuses on individual activeness in shaping their knowledge. This is also in line with previous research where Sugrah (2019) said that learning occurs through students' active involvement in the construction of individual meaning and knowledge through constructivism learning.

However, what is an obstacle in low-grade children, as stated by (informant 1) and (informant 2), low-grade children cannot be independent in learning and always wait for the teacher to provide knowledge. According to Wicaksono et al. (2022) human cognition has stages in the form of changes that occur in the span of human life in order to understand, process information, solve a problem and know something. So, low-grade children have not yet reached the stage of abstract thinking but still think concretely.

Second, most teachers gave positive responses to each learning model. This learning can also improve their ability to teach. The more active children are, the more teachers must continue to learn. Teachers are required to innovate and be able to learn in order to adjust their knowledge and abilities in the industrial era 4.0. This is due to the changing times followed by rapid technological changes (Lentjang et al., 2022).

Third, constructivism learning patterns experience a few obstacles including many students making it difficult for teachers to condition the class. Then the lack of facilities and infrastructure in learning. If there are no facilities and infrastructure, it will be a significant obstacle for teachers and students, because it hinders the learning process (Dewi et al., 2020).

#### **D. Conclusion**

Based on the findings, it can be concluded that the implementation of constructivism learning is successfully applied to high grade elementary school children and has not been effectively applied to low grade children. The obstacles found in low-grade children are not yet able to be independent in learning and always waiting for the teacher to provide knowledge while in high grades teachers have difficulty conditioning the class due to the large number of students in one class. Another obstacle is the facilities and infrastructure in learning.

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