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Abstract
This research is about Jean Piaget’s constructivism learning theory. The type of research used in this study is field research because researchers have to go directly into the field and be involved with local schools. This study describes the theory of constructivism in learning. Constructivist epistemology is a theory that describes the way a person obtains knowledge by constructing that knowledge within himself, without waiting or expecting the transfer of knowledge from others or educators (teachers). Researchers conclude that Piaget’s perspective constructivism learning theory is a learning process that gives freedom to students in constructing the knowledge that exists within them. Each theory has advantages and disadvantages in its implementation, as well as advantages and disadvantages of constructivism theory in learning. The right solution to complement these shortcomings is for teachers to be able to make changes in the learning model and add insight and knowledge in order to implement constructivism theory in the learning process. In conclusion, the theory of constructivism at SDI Bilal bin Robbah has not been able to be applied in all classes because there are obstacles that there are students who cannot read, especially in grades 1 and 2. The solution to overcome these difficulties is that SDI Bilal bin Robbah teachers create a program called Diniyah Sore, where students practice reading. In contrast, in grades 3 and 4, it can be implemented properly because students can read and seek literacy on their own with teacher guidance.

Keywords: Epistemology; Jean Piaget; Constructivism; Learning Theory

Introduction
Education is defined as the human process of developing and increasing physical and spiritual potential [1]. Education is narrowly defined as a school [2]. Besides that, education can also be interpreted as a step in changing one’s behaviour towards maturity in thinking and behaviour and attitude in taking action [3]. In a simple sense, education can be termed as a learning process carried out in educational institutions [2].

On the other hand, Azyumardi Azra said education is not only about teaching but more than that; education is expected to be a process of value transformation and construction of the personality or character of students [4]. This is in line with the views of Indonesian education figures, namely Ki Hajar Dewantara (in Azra), who said that
education is an effort to develop the ethics or spiritual, intellectual (thought) and physical body of students [4].

As for the thought of Islamic education, education is interpreted linguistically, namely "at-tarbiyah," which means improving, developing, and growing [5]. Thus, education can be said to be a place for the process of development and growth of students both in terms of psychomotor and cognitive development and also, education is a place to improve the character of students.

The world of education is not far from the word learning; learning is a fundamental thing for all humanity. Learning is the consumption or staple food of the human mind or brain.

The terms "education" and "learning" cannot be separated because learning is the main basic foundation of educational activities. Without learning activities, there are no educational activities. In various fields of education, learning occupies a central position because it is a process [6].

In other words, learning is The process of educating and changing the behaviour, mindset and character of students for the better. Learning can also be interpreted as the main step in improving the quality and potential of students.

Talking about education and learning that develops today, we are inseparable from the thoughts of Western philosophers or thinkers such as Plato, Aristotle, John Locke, Thomas Hobbes, John Dewey, Jean Piaget, Paulo Freire and Benjamin S. Bloom, and those not mentioned. Then not to be forgotten also educational thinkers from Islamic circles, such as Hasan Langgulung, Fazlur Rahman, Muhammad Abduh, Mukti Ali, Muhammad Naquib Al-Attas, and Munawir Sjadzali and many more educational thinkers who have not been mentioned [5].

From the above figures, a thought such as rationalism derived from the epistemology of Plato's science and empiricism thought that rested on Aristotle's thought was born. Then from these two thoughts were born several epistemologies of science that we have known so far, such as the epistemology of behaviourism (behaviour) proposed by John B. Waston in 1913 and then developed by J. C. L. Hull, E.C Tolman and B. F. Skiner.

Furthermore, the epistemology of cognitivism is a derivative of rationalist thinking that relies more on the performance of the brain (mind). The view of the epistemological thought of cognitivism is focused on the thought of Aristotle. Furthermore, the last is constructivist epistemology, where epistemology believes knowledge is born from complex constructions involving understanding, problem-solving, rearrangement and others [7].

Judging from the background description above, researchers will study and analyze Jean Piaget's constructivism learning theory because constructivist epistemology is very often used in the world of education, but not many educators understand the theory.

The problems or problem formulations in this study are as follows: First, What is meant by constructivism epistemology? What is meant by learning theory, and how is Jean Piaget's constructivism learning theory? Third, What are the advantages and disadvantages of constructivism learning theory? And how is the application of constructivist learning theory at SDI Bilal bin Robah?

Researchers are not the first to study the epistemology of constructivism. Therefore, researchers describe some research relevant to this study as follows:
1. Implementation of Constructivism Learning Theory in Science Learning, written by Nurfatimah Sugrah, concluded that constructivist learning relies on the involvement of students or
students in active demand, and this research focuses on science learning [8]

2. Constructivism Learning Theory and Its Implications in Education and Learning written by Ndaru Kukuh Masgumelar and Pinton Setya Mustafa, who conclude that constructivism is an alternative in answering or complementing the shortcomings of behaviourism epistemology which assumes that knowledge is a form (construction) of us who study and conclude [9]

3. The theory of Constructivism in Learning written by Suparlan, then concluded that constructivism is constructive and active in which students manage their knowledge [10]

Thus, researchers will try to describe Jean Piaget's constructivism theory in learning in detail and clearly.

Method

The research method is a scientific process to obtain data and objectives. In this sense, what needs to be understood is the word scientific, where the results of research must meet its scientific or rational, empirical and systematic [11].

As for this study, researchers apply a descriptive qualitative research approach. The type of research used in this study is field research because researchers must go directly into the field and be involved with local schools.

Results and Discussion

Epistemologi Konstruktivisme

Epistemology in terms of language epistemology comes from the Greek word "episteme", which means knowledge and the word "logos", which means (thought, word, theory, conversation and science). So, linguistically, epistemology means a word or theory about the science of knowledge. Epistemology is one branch of philosophy related to the theory of science [12].

In ancient Greek philosophy, Aristotle's philosopher defined epistemology as "an organized body of rational knowledge with its proper object" (Taufiq and Wijaya 2019: 31), where epistemology can be used as a rational theory of knowledge.

According to Kosmic (2002) and Taufiq (2019), defining epistemology is a part of philosophy that studies the science of human knowledge, especially on three main problems as follows: 1) Sources of knowledge, 2) Tools to achieve knowledge, 3) Limits of knowledge or classification of knowledge [13].

Based on this epistemology, two major viewpoints in knowledge are born either in questioning the origin of knowledge or where humans obtain that knowledge, which we know as empiricism and rationalism. Where empiricism assumes that knowledge comes from human experiences itself, rationalism assumes that knowledge comes from the human mind itself [7].

With the development of empiricism and racism, some figures thought that the theory of empiricism and rationalism was incorrect. These figures, such as Jean Piaget, Maria Montessori, Lev Vygotsky and John Dewey, initiated a theory that was later called constructivism theory [9]. The theory is a solution to misconceptions about empiricism (behaviourism) and the theory of rationalism.

Next, we will discuss constructivism. Constructivism comes from the word "constructiv", which means to repair, build and build and the word "ism", which means flow or understanding. Logistically, constructivism is a school in the philosophy of knowledge that assumes that science comes from the construction of human thought itself [9]. This is in line with Sudarsana's opinion that constructivism...
The notion of constructivism emerged in 1988, according to Von Glaserveld, in the writings of Mark Abldwin, then deepened by Jean Piaget. Furthermore, the main idea of constructivism has actually been initiated by a figure named Giambattista Vico, an epistemologist from Italy. According to Piaget, he is the forerunner of this constructivism theory [15].

According to Suparno in Rangkuti, explaining constructivism from a philosophical point of view, constructivism assumes science is the result of human construction based on phenomena, objects, environments and experiences. (Rangkuti 2014:62) This is in line with Suryadi’s thinking that the knowledge we get is the result of our construction. He rejected the statement that knowledge is a transfer from other people’s thoughts because knowledge is not like goods that can be transferred or moved [16].

Constructivism theory provides freedom for children or students to construct or build knowledge in themselves; in other words, they do not always wait for knowledge from their teachers [17].

Thus, we can conclude that constructivist epistemology is a theory that describes the way a person acquires knowledge, namely by constructing that knowledge within himself, without waiting or expecting knowledge transfer from other people or educators (teachers).

**Learning Theory**

Before we understand the theory of learning, it is necessary to know about what is meant by theory. Linguistic theory departs from the word "Theorein", which means to look at, then the word "Theoria" also appears, which means a handle. Then, in English, the theory is called the word "Theory", which means a *sight* [18], which then in Indonesian in Latin becomes the word "Theory", which has a meaning not much different from the meaning in English.

In terms of theory, it is defined as a set of results of someone’s thoughts that have been tested for their scientific and can be accepted by the rationale of many people [15].

Furthermore, learning is an important activity in achieving the goals of education. When a person does not learn, then that person will not become a smart or educated person. Thus, it can be said that a smart or educated person is a person who is fond of learning [19]. Some define learning theory as a collection of principles that are interrelated and explain a fact and discovery about learning [20].

According to constructivist theory, learning is a step in constructing or shaping science. The formation of science must be carried out by humans or students themselves. Thus, students are required to always be active in carrying out activities, thinking, conceptualizing, and interpreting what they learn [14].

Imron defines learning as an effort to collect or master knowledge, where knowledge is obtained from others who previously knew it or who are often referred to as "teachers" or educators. According to the Imam, a person who knows is a person who often learns. On the other hand, a person who lacks knowledge is a person who lacks learning, and what is said to learn here is a person who reads books, reads reading, does assignments and others [21].

While Budimansyah defines learning as a revolution in the ability, character or behavioural attitudes of learners that are permanent as a result of learning or training and experience [21], it can be concluded that learning and learning is a step or process or stage in changing the team, knowledge, attitudes and character of students, of course, change to more positive things.
Learning is something that we carry out every day and even every time in everyday life. Learning can happen anytime, anywhere and with anyone, which is said to. Learning is not only for people who are learning in the classroom or school environment, but learning is an activity that sometimes we do not realize that we are carrying out learning, whether it's learning to observe nature, learning to live life or learning things that are being, we do [22].

According to Suyono, learning is a step where a person experiences a new and complete change in behaviour as a result of his interaction with his environment. Based on the specific characteristics of the learner, various theories and methods are used for teaching. Behaviorism, cognitivism, and constructivism are three models of approach that can be used in the learning process [23].

In other words, learning is a process of educating and changing the behaviour, mindset and character of students for the better. Learning can also be interpreted as the main step in improving the quality and potential of students.

There are several foundations in learning that we need to know together, such as: 1). Landsan studied behaviourism, 2). Landsan studied cognitivism, 3) Foundations of constructivist learning, 4) Foundations of learning based on Robert M. Gagne, and 5). Foundations of learning based on organizing [22]. However, in this discussion, researchers focused on learning foundations based on constructivism theory.

Jean Piaget's Constructivist Learning Theory

Biography of Jean Piaget

Jean Piaget, whose full name is Jean William Fritz Piaget, was born in Neuchâtel, Switzerland, on August 9, 1896, and died on September 16, 1980, at the age of 84 years. As a child, Piaget loved learning because of the influence of his father, who became a man of great dedication to research, and his mother, who was religious and intellectual. During his childhood, Piaget had shown his intelligence by publishing a journal entitled "Pipit Abino", which explained natural science. Piaget completed his undergraduate education with a focus on biology at the University of Neuchâtel in 1916. Piaget obtained his Ph.D. at the age of 21 after studying psychology in Zurich [24].

As we all know, Jean Piaget is the main initiator of constructivism theory. Still, inseparable from that, several figures took part in developing constructivism theory in learning, such as Maria Montessori, Lev Vygotsky and John Dewey [9].

Jean Piaget's Constructivist Learning Theory

Before we proceed to the discussion of constructivist learning theory, we need to remember that constructivist theory is not the earliest theory to exist and develop. Still, as we know, there are theories of cognitivism (theories that rely on reason as a source of knowledge) and behaviourism theories (theories that assume experience is the source of human knowledge) that first develop, then constructivism theory as a theory of learning approaches that perfected these two theories because constructivism theory emphasizes the involvement and activeness of students in carrying out the learning process [9].

Constructivism in learning theory is a theory that provides space for human freedom in learning or seeking knowledge with his abilities or the help of others (educators). Thus, constructivist theory provides opportunities for humans themselves to be more active in finding their knowledge, competence and even technology in their self-development [8].

As for the theory of constructivism, Jean Piaget defined cognitive growth and development as such development
depends on the process of interaction of a child with his environment. The purpose of Jean Piaget's tori is to define the processes and mechanisms by which infants and children grow into individuals capable of thinking using their intellect [25].

Constructivism, developed by Piaget, is a theory that focuses on knowledge. Vygotsky developed social constructivism, also called socio-cultural. Piaget says that the child or learner discovers knowledge on his own or in simple language. The child constructs the knowledge in himself, while Vygotsky says it is the attraction or social relationship that influences the acquisition of knowledge [26]. But in this article, we will focus on discussing the constructivism theory from Piaget's perspective.

Before we continue to discuss the theory of constructivism in learning, it would be better to know about children's cognitive development, according to Piaget. Piaget classified the stages in a child's cognitive development into four levels, as follows:

First, the Sensorimotor Stage is calculated from (age 0-2 years). This stage is the first two years of the baby's life. In this stage, the baby develops his knowledge through sensory (hearing and seeing) and motor (touching and responding) experiences. In this case, the child knows the events that occur around him and can respond with movements but will not be aware of using appropriate responses.

Second, the Preoperational Stage is calculated from (age 2-7 years). In this stage, children begin to think more than before. Namely, children are able to understand symbolism but have not been able to combine and change or separate ideas or thoughts.

Third, the stages of concrete behaviour are calculated from (ages 7-11 years). At this stage, the child's thinking has begun to increase, which is marked by the child's thinking being able to be understood (ratio) and neatly arranged (organized).

Fourth, the Formal Behavior Stage is calculated from (age 11 years and over). When the child has reached this stage, the child can reason knowledge and conclude [25].

Thus, it can be concluded that these stages do occur in children, but here, Piaget classifies the age of children in general, not in the children of students in particular. In other words, it can be different from what happens to each child due to other factors.

Constructivist learning theory is an idea that provides flexibility to humans in gaining knowledge and requires humans or students to be more active in responding to a problem. Constructivism is one approach to learning that is a completion of the previous approaches, namely behaviourism and cognitivism learning theory. (Masgumelar and Mustafa 2021:55)

In constructivist learning theory, students are required to be able to construct their learning, learning activities must be supported by attraction or dialogue, and educators must be able to make the learning atmosphere meaningful [16].

Some characteristics of constructivist learning theory, according to Hanafiah & Suhana, are as follows: 1) Learning activities are centred on children or students. 2) Learning activities integrate or adjust the latest knowledge with the knowledge already possessed by children or students. 3) Learning activities respect different views among children or students. 4) Learning activities are directed to find various possibilities in synthesizing or combining knowledge in an integrated or interrelated way with one another. 5) Learning activities are demanded to be comparative and competitive, and students are required to be active, creative, innovative and exciting. 6) Learning activities are carried out...
contextually. Namely, students are directed to real experiences [16].

Several learning models use constructivism theory, such as 1) the Jigsaw learning model, 2) the Question and answer learning model, 3) the playing learning model, 4) the Inquiry learning model (finding), 5) the Cooperative learning model (comparative learning), 6) PBL (Problem-Based Learning) learning model [16], and so on. The learning focuses on learning activities for students.

We can conclude that Jean Piaget's constructivist learning theory demands the ability of children or students to construct their thoughts or knowledge. The constructivist learning process, often known as student-centered learning, focuses on students, where students are required to be creative, innovative, and active in learning activities.

Advantages and disadvantages of constructivism theory in learning

Each theory has advantages and disadvantages because the nature of the theory can change by following the times, humans and so on. Here, researchers will describe some of the advantages and disadvantages of constructivism theory in learning: As for the advantages of constructivism theory in learning. First, students can develop their thinking ideas from experience and lessons or affirmations that these students have owned. Second, students can feel the learning process is meaningful because it is based on their own experience. Third, increase student learning motivation. Fourth, provide stimulus to students to ask questions and find or search for answers themselves. Fifth, make it easier for students to develop their understanding. Sixth, improve the ability of students to become thinkers or able to think independently. Furthermore, the shortcomings of constructivism theory in learning are as follows: First, educators or teachers are required to have the ability to construct more knowledge, increasing the knowledge possessed by students.

Second, there are still many students or students who lack confidence in asking or conveying their ideas. Third, the difficulty of teachers in changing learning habits that still use teacher-centred learning methods that have been done for years. Fourth, educators in constructivism theory are required to be more creative in planning and running the learning process. Fifth, educators must be creative in choosing or using media in the learning process [27].

The explanation above is also in line with Agus's opinion, which explains the advantages and disadvantages of constructivism theory in learning. The advantages are as follows: First, learning resources do not only come from educators or teachers. In learning constructivism theory, students are required to be active and creative. In this case, for example, students can discuss or convey their ideas. Third, the learning atmosphere becomes meaningful, and constructivist learning expects all students to be actively involved in class so that the learning is impressive and fun. Fourth, students are given freedom in learning. Of course, here, they remain under the supervision of a teacher who serves as a facilitator and moderator. The shortcomings are as follows: First, learning activities in constructivism theory are seen conceptually as not a one-way concept; namely, students do not obtain information from outside (teachers) themselves but from many sources of knowledge that students can obtain. Second, the lack of role of teachers. In constructivist learning theory, teachers are only moderators and facilitators in learners' learning activities and knowledge development [28].
Thus, we can conclude that in the step of learning activities with constructivism theory, teachers are required to be able to master knowledge widely due to the teacher's position as a moderator and facilitator in learning activities, and are also expected to be creative in preparing and applying media and learning methods. Then, students are required to be more active and creative in the classroom or learning activities.

**Application of Constructivism Theory at SDI Bilal bin Robah**

The results of the analysis of the general description of the object of research, SDI Bilal bin Robah, is one of the foundations located in Batulayar Village, Batulayar District, West Lombok. The early history of the establishment of the foundation began in 2019 during COVID-19 because many children returned home from their schools so that learning would not be hampered by the head of the foundation taking the initiative to build the foundation. The levels are kindergarten, SDI, MTs and MA, for the head of the foundation named Jihad Al-Fatawa S.Pd. At the same time, the principal of SDI, Bilal bin Rabbah, named Gita Nurfitria, S.Pd., for the teachers in SDI as many as 12 people with 98 students.

PAI subjects include the main material: Al-Quran Hadith, Fiqh, Akidah, Akhlak, Arabic, and adab. For the curriculum still using K13 policy direction, students are encouraged to have skills (expertise). To determine in the process of teaching and learning activities, many ways are used to provide maximum results to students through constructivism learning theory, which is discussed as follows:

The implementation of constructivism learning theory in PAI subjects at SDI Bilal bin Robah, in a teaching and learning approach, must have disadvantages and advantages. Included in the theory of learning constructivism, of course, there are several problems in its implementation. Some things that need to be considered in the implementation of constructivism learning theory in fiqh and adab subjects are relevant when learning the use of IT-based learning media, namely the appearance of videos related to learning materials where it is very supportive and facilitates the understanding of students, at the 1st and 2nd-grade levels of material about exemplary stories in studying, students are invited to see, understand, explore by watching the video about how life reflects the rules in studying such as the story of Imam Shafi’i. For grades 3 and 4 of the material related to ablution, in this case, the teacher also uses video-based media facilities after the material, which is the pillars and sunnah in ablution.

In teaching and learning activities, teacher strategies need to adjust related to teaching materials, which in PAI maple, specifically in Islamic elementary schools, are more specific to jurisprudence. Based on the results of understanding through the video, students also construct their understanding. Suppose there are things that students have not understood. Ask the teacher. In this case, the lecture model is no longer a method but rather leads to something that must exist as a stimulant and reinforcement to children or students. When they have constructed their understanding, students will discuss with friends so that there is communication between others in the hope of being able to bring up a comprehensive understanding.

Obstacles and solutions in the implementation of constructivism learning theory: Some students cannot read, especially in grades 1 and 2. The solution to overcome these difficulties SDI Bilal bin Robbah teachers made a program called Diniyah Sore, where students practice reading. At the same time, in grades 3 and 4, it can be implemented properly because
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**Conclusion**

Based on the description of the results of the research above, it can be concluded that constructivism learning theory is a theory that provides space for freedom to humans or students in thinking and building knowledge that already exists in themselves.

The constructivism-based teaching process requires students to be creative and...
active in learning to construct the knowledge they get. In constructivist learning, teachers must prepare themselves or, in other words, must first master as much knowledge as possible because teachers have a role as facilitators and moderators in learning activities.

We cannot deny the shortcomings in learning using constructivism theory. Still, as educators (teachers) in this era who are required to be able to develop in line with progress in the world of education that has advanced rapidly, it must be able to change previous or traditional learning models to the latest or student-centred learning models.

In conclusion, the theory of constructivism at SDI Bilal bin Robbah has not been able to be applied in all classes because there are obstacles for students who cannot read, especially in grades 1 and 2. The solution to overcome these difficulties is that SDI Bilal bin Robbah teachers create a program called Diniyah Sore, where students practice reading. In contrast, in grades 3 and 4, it can be implemented properly because students can read and seek literacy on their own with teacher guidance. The implementation of constructivism theory in PAI learning at SDI Bilal bin Robah can run well. Still, several points are felt to hinder the implementation of constructivism, namely, not too supportive of facilities and infrastructure because it is classified as a new foundation.

This research is only limited to analyzing constructivist learning theory for further researchers to develop by examining the problem of applying constructivist theory in learning.

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