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THEORIES OF LEARNING COGNITIVISM AND ISLAMIC EDUCATION: IMPLICATIONS OF LEARNING COGNITIVISM THEORY IN ISLAMIC EDUCATION

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Abstract: *Cognitive learning theory emphasizes learning is a process that occurs in the human mind. Cognitive learning theory focuses more on the learning process than the learning outcome itself. Learning in this theoretical view does not only involve the relationship between stimulus and response. However, it is an activity that involves complex thought processes. This means that there is complex activity in the individual's brain during the learning process. Therefore, cognitive learning theory believes that learning is a thought process, and focuses more on the learning process itself than learning outcomes. Where in the context of psychology this thought process is referred to as mental activity, and in the context of education is called learning. Knowledge can only be gained through the learning process. Therefore, it is very important to study the position of the human brain here through the thought process. This is why God requires people to learn.*

Keywords: *Learning Cognitivism; Islamic Education*

INTRODUCTION

One of the most important elements in advancing a State must have an element of education, where education is a major factor in the formation of human personality. Education plays a role in shaping the good or bad of the human person according to normative measures that apply.[1]

In education, there is a learning process. Learning is a deliberate activity aimed at achieving a new skill, intelligence or skill that can be used in life. Every journey of human life will always face new things, new situations and require him to understand in order to continue to interact well with the environmental conditions he faces. Here lies the importance of a theory. Learning theory is an attempt to describe how a child learns, how a teacher learns to teach so as to help us all understand the complex processes of learning.[2]

There are three prominent perspectives in learning theory: Behaviorism, Cognitivism, and Constructivism. Basically between one theory and another theory perfects each other, so that between variants, main ideas, or figures can not be clearly included which of the three, or even become a separate theory. But that is not the topic of discussion, what is more important to understand is which theory is good to apply to a particular region, and which theory is suitable for other regions and how it is applied at a certain level of development as well. In this discussion, the author will explain the theory of cognitivism. This kind of understanding is important to be able to improve the quality of learning, especially in Islamic Education.

[1]Sudarwan Danim, *Pengembangan Profesi Guru: Dari Pra-Jabatan, Induksi ke Profesional Madani* (Jakarta: Prenadamedia, 2012), h. 3.

[2]Puspa Nugroho, "Pandangan Kognitivisme dan Aplikasinya dalam Pembelajaran Pendidikan Agama Islam", *Jurnal Thufula* 3, no.2 (Juli 2015): h. 282

THE THEORY OF LEARNING COGNITIVISM

Interpretation of the word "cognition" which means to know. Broadly speaking cognition is the arrangement and application of knowledge. Cognitive learning theory focuses more on the learning process than the learning outcome itself. According to Baharudin, this theory focuses more on internal events. Learning not only involves the relationship between stimulus and response in behaviorism theory, but also learning in cognitive theory involves very complex thought processes.[3]

According to cognitive flow, learning is an active mental process for achieving, remembering, and using knowledge. According to this theory, science is built in a child through a continuous process of interaction with the environment. This theory holds that learning is an internal process that includes memory, information processing, emotions, and other psychiatric aspects. Learning is an activity that involves a very complex thought process. The learning process includes regulating the stimulus received and adjusting it to the cognitive structure that is already owned and has formed in a person based on previous understanding and experiences.[4]

Cognitive learning theory emphasizes learning is a process that occurs in the human mind. Basically learning is a business process that involves mental activities that occur in humans as a result of the process of active interaction with their environment to obtain a change in the form of knowledge, understanding, behavior, skills and values of attitudes that are relative and important.[5]

Cognitive turns its attention to the "Brain". Experts argue how humans process and store information is critical in the learning process. Learning events experienced by humans are not merely a matter of response to stimuli (stimuli), but the existence of measurements and self-regulation controlled by the brain. The definition of cognitive learning system is the processing of information in the brain, absorbing input from the outside world and all other systems, interpreting those inputs and guiding problem solving and decision making.[6]

So in this cognitivistic flow there are characteristics of the tree. The characteristics of the cognitivistic flow that can be seen are as follows: 1). Concerned with what is in humans; 2). Concerned the whole rather than the parts; 3). Attach importance to cognitive roles; 4). Concerned with the current conditions of time; 5) Concerned with the formation of cognitive structures.[7]

Cognitivism does not entirely reject the idea of behaviorism, but rather tends to expand it, especially to the idea of the existence of mental states that can affect the learning process. Modern cognitive psychologists argue that learning involves complex mental processes, including memory, attention, language, concept formation, and problem solving. They

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[3]Puspa Nugroho, "Pandangan Kognitivisme dan Aplikasinya dalam Pembelajaran Pendidikan Agama Islam", *Jurnal Thufula* 3, no. 2 (Juli 2015): h. 290.

[4]Nurhadi, "Teori Kognitivisme serta Aplikasinya dalam Pembelajaran", *Jurnal Edukasi dan Sains* 2, no. 1 (Juni 2020): h. 81.

[5]Given. K. Barbara, "*Merancang kegiatan belajar mengajar yang melibatkan Otak, Emosional, Sosial, Kognitif, Kinestetik, dan Reflektif*" (Bandung: Kaifa, 2014), h. 188.

[6]Baharuddin, *Pendidikan dan Psikologi Perkembangan* (Yogyakarta: Ar Ruzz Media, 2010), h. 167.

[7]Puspa Nugroho, "Pandangan Kognitivisme dan Aplikasinya dalam Pembelajaran Pendidikan Agama Islam", h. 291.

examine how humans process information and form mental representations of other people, objects, and events.

PERSONAGE OF THEORIST LEARNS COGNITIVISM

1. Theory of Cognitive Development developed by Jean Piaget.

Jean Piaget is a professor of psychology at the University of Geneva, Switzerland. His theory of the cognitive development of children is one of the milestones of the emergence of cognitivism. Cognitive development is the growth of thinking logic from infancy to adulthood. Piaget has basic assumptions of human intelligence and the biology of organisms functioning in the same way. Both are organized systems that constantly interact with the environment.

Jean Piaget, who once expressed his opinion about the cognitive development of children consisting of several stages. In terms of the acquisition of the mother tongue, Piaget said that: a) the child in addition to mimicking is also active and creative in mastering his mother tongue; b) the ability to master language is based on cognition; c) Cognition has structure and function. The function is genetive, carried from birth, while the structure of cognition can change according to the abilities and efforts of individuals.[8]

His theory provides many key concepts in the field of developmental psychology and influences the development of the concept of intelligence. According to Piaget, that learning will be more successful when adjusted to the stage of cognitive development of learners. Learners should be given the opportunity to experiment with physical objects, which are supported by interaction with peers and helped by questions from teachers. Teachers should provide a lot of stimulation to learners to be willing to interact with the environment actively, looking for and discovering various things from the environment.

Piaget divides the learning process into three stages:

a. Assimilation. The process of insuring new information to existing cognitive structures. Example: a learner who knows the principle of summation principle, if the teacher introduces the principle of multiplication, then there is a process of integrating between the principle of summation (which is already understood by the child) with the principle of multiplication (new information that the child will understand)
b. Accommodation. The process of adjusting between cognitive structures into new situations. Application of multiplication process in more specific situations. For example: learners already know the principle of multiplication and the teacher gives a question of multiplication
c. Equilibration. A continuous process of adjustment between assimilation and accommodation. This is as a counterweight so that learners can continue to develop and add knowledge. But while maintaining mental stability in him, it requires a balancing process. Without this process, one's cognitive development will falter and run irregularly, while with good equilibration ability will be able to organize various information received in a good, clear, and logical order.[9]

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[8]Paul Suparno, "*Perkembangan Kognitif Jean Piaget (*Yogyakarta: Kanisius, 2016), h. 11

[9]Dwi Wijayanti, "Analisis Pengaruh Teori Kognitif Jean Piaget Terhadap Perkembangan Moral Siswa Sekolah Dasar Melalui Pembelajaran IPS", *Trihayu: Jurnal Pendidikan Ke-SD-an* 1, no. 2 (Januari 2015): h. 86.

The four stages of cognitive development according to Piaget as Erawati et al, are as follows:

a. Sensory motor stage (age 0-2 years)
b. Preoperative stage (ages 2-6 years
c. Concrete operational stage (ages 6-12 years)
d. Internal formal stage (12-18 years more)[10]

The theoretical implications of Piaget's cognitive development in learning are: The language and way of thinking of children are different from adults. Therefore, the teacher teaches using language that is in accordance with the child's way of thinking. Children will learn better if they can deal with the environment well. Teachers should help children to interact with the environment as well as possible. The material that children must learn should be felt new but not foreign. Provide opportunities for children to learn according to their stage of development. In the classroom, children should be given the opportunity to talk to each other and discuss with their friends.[11]

2. Theory of Cognitive Development developed by Jarome Bruner

In contrast to Piaget, Burner looked at human cognitive development with regard to culture. For Bruner, a person's cognitive development is strongly influenced by the cultural environment, especially the language that is usually used. Thus, the development of language has a major influence on cognitive development.[12]

The application of Bruner's well-known theory in the world of education is a spiral curriculum where the same subject matter can be given from elementary school to college, but adapted to their level of cognitive development, meaning it demands repetitions. The best way to learn according to Bruner is to understand concepts, meanings and relationships through an intuitive process and then a conclusion can be produced (Free Discovery Learning). In other words, learn by finding.[13]

The implication of Bruner's theory in the learning process is to expose the child to a confusing situation or problem; the child will try to compare the reality outside of himself with the mental model he already has; And with his experience the child will try to adjust or reorganize the structures of his ideas in order to achieve balance in his mind. From these implications it can be known that the basic assumption of this theory is that everyone has knowledge and experience in him that is arranged in the form of cognitive structures, which then undergo the learning stage as a change in perception and understanding of what he finds.[14]

This theory explains that the learning process will run well and creatively if the teacher gives students the opportunity to find a rule (including concepts, theories, definitions, etc.) through examples that describe (represent) the rules that are the source. From this approach "learn expository" (learn by explaining). Learners are given general information and asked

[10]Erawati. Muna dkk, *Teori Teori Belajar* (Salatiga: STAIN Salatiga Press, 2008), h. 80.

[11]Fatimah Ibda, "Perkembangan Kognitif: Teori Jean Piaget". *Jurnal Intelektualita* 3, no. 1 (Januari, 2015): h. 151.

[12]Muhibbin Syah, *Psikologi Pendidikan* (Bandung: Remaja Rosdakarya, 2012), h. 200.

[13]Puspa Nugroho, "Pandangan Kognitivisme dan Aplikasinya dalam Pembelajaran Pendidikan Agama Islam", h. 292.

[14]Asri Budiningsih, *Belajar dan pembelajaran* (Jakarta: Rineka Cipta, 2015), h. 40-41.

to look for specific and concrete examples. According to Bruner, there are three stages in cognitive development:

a. Enaktif : efforts / activities to recognize and understand the environment by observation, experience of a reality.
b. Iconic : learners see the world through images and verbal visualization.
c. Symbolic: learners have abstract ideas that are heavily influenced by language and logic and the use of symbols.[15]

Advantages of learning to find (Free Discovery Learning): 1). Cause the curiosity of learners so as to motivate learners to find the answer; 2). Raises problem-solving skills independently and requires learners to analyze and manipulate information.

3. Theory of Cognitive Development developed by Robert M. Gagne

According to Gagne learning is seen as the process of processing information in the human brain. In learning there is a process of receiving information, to then processed so as to produce output in the form of learning outcomes. Processing the human brain*: a). Reseptor; b). Sensory register; c). Short-term memory; d). Long-term memory; e). Response generator.*

One theory derived from cognitiv psychologists is the theory of information processing put forward by Robert M. Gagne. According to this theory learning is seen as the process of processing information in the human brain. While the processing of the human brain itself can be explained as follows:

a. *Reseptor* (sensory device): receiving stimuli from the environment and turning them into neural circuits, giving symbols the information they receive and then forward.
b. *Sensory register* (the placement of sensory effects): found in the central nerve, its function accommodates sensory effects and conducts selection until a perceptual roundness is formed. The information that comes in part goes into short-term memory and some is lost in the system.
c. *Short term memory*: holds the results of perceptual processing and stores them. Certain information is stored to determine its meaning. Short-term memory is also known as working memory information, its capacity is very limited, the storage time is also short. Information in this memory can be transformed in the form of codes and then passed on to long-term memory.
d. *Long Term memory*: It holds processing results that exist in short-term memory. Information that is stored in the long term, lasts a long time, and is ready to be used at any time.
e. *Response generator*: hold information stored in long-term memory and turn it into an answer reaction.[16]

4. Theory of Cognitive Development developed by David Paul Ausebel

David Paul Ausubel is a cognitive psychologist. According to Ausubel the subject material studied by learners must be "meaningful". Meaningful learning is the process of linking new information to relevant concepts contained in a person's cognitive structure. Cognitive

[15]Bambang Warsita, *"Teknologi Pembelajaran; Landasan dan Aplikasinya* (Jakarta: Rineka Cipta, 2016), h. 72.

[16]Nurhadi, "Teori Kognitivisme serta Aplikasinya dalam Pembelajaran", h. 88-89.

structure is the facts, concepts, and generalizations that learners have learned and remembered.

Meaningful learning is a learning process in which new information is connected to the structure of understanding that someone who is going through learning. Meaningful learning occurs when learners connect new phenomena into the structure of knowledge they already have. That is, the subject material must be in accordance with the skills of learners and must be relevant to the cognitive structure of learners. Therefore, the subject must be associated with the concepts that the learners already have, so that the new concepts are completely absorbed by it. Thus, the intellectual-emotional factors of learners are involved in learning activities.[17]

The learning process takes place in the following stages: a) Pay attention to the stimulus provided; b) Understand the meaning of stimuli to store and use information understood; Meaning full learning is a process associated with it.

At the core of ausubel's theory of meaningful learning is the process of attributing new information to releven concepts found in a person's cognitive structure. Learning will bring results or meaningful if the teacher in presenting new subject matter can connect it with relevant concepts that already exist in the structure of child cognition.[18]

According to Ausebel learners will learn well if the content of the lesson is defined and then presented properly and appropriately to learners (Advanced Organizer), thus will affect the arrangement of learners' learning abilities. Advanced organizer is a general concept or information that accommodates the entire content of the lesson that will be learned by learners. Advanced organizers provide three benefits: a) Provide a conceptual framework for the material to be studied. b) Serves as a bridge connecting between what is being studied and what will be studied. c) Can help learners to understand learning materials more easily.

Therefore, the teacher must have a very good understanding of the content of the learning, thus he will be able to find very abstract, general and inclusive information that accommodates what will be taught. Teachers must also have good thinking logic, in order to be able to sort through learning materials, formulate them in short formulations, and sort the material in a logical and easy-to-understand structure.

IMPLICATIONS OF COGNITIVISM THEORY IN ISLAMIC EDUCATION

Learning is a gradual process of adapting or adjusting behavior. Learning in this theoretical view does not only involve the relationship between stimuli and responses. However, it is an activity that involves complex thought processes. This means that there is complex activity in the individual's brain during the learning process. Therefore, cognitive learning theory believes that learning is a thought process, and focuses more on the learning process itself than learning outcomes. Where in the context of psychology this thought process is referred to as mental activity, and in the context of education is called learning.

Al-Qur'an strongly emphasizes the process of thinking. There are many verses that provide a stimulus for humans to think. As in surah al-'Alaq verse 1 is mentioned:

[17]Puspa Nugroho, "Pandangan Kognitivisme dan Aplikasinya dalam Pembelajaran Pendidikan Agama Islam", h. 294.

[18]Mulyati, *Psikologi Belajar* (Yogyakarta: Andi Ofset, 2005), h. 78.

ٱقۡرَأۡ بِٱسۡمِ رَبِّكَ ٱلَّذِي خَلَقَ ١

Translated:

"Read the name of your Lord who created you"[19]

The word that begins this letter is the word of command (fi'l amr) which is "read!" (iqra'). The word iqra' itself comes from the basic word qara'a which means to gather, arrange things in order. This command word "read" has no object from the command itself, so it is general in nature. That is, man is required to read whatever he can read (not necessarily writing), so that humans are used to thinking. In the context of such an understanding of iqra', then actually man is required to do contemplation, which is nothing but abstraction. The definition of iqra' who does not have the object is in accordance with mathematical knowledge that is supraorganic.

And in surat al-Ghasyiyah/88:17-21 it is mentioned:

أَفَلَا يَنظُرُونَ إِلَى ٱلۡإِبِلِ كَيۡفَ خُلِقَتۡ ١٧ وَإِلَى ٱلسَّمَآءِ كَيۡفَ رُفِعَتۡ ١٨ وَإِلَى ٱلۡجِبَالِ كَيۡفَ نُصِبَتۡ ١٩ وَإِلَى ٱلۡأَرۡضِ كَيۡفَ سُطِحَتۡ ٢٠ فَذَكِّرۡ إِنَّمَآ أَنتَ مُذَكِّرٞ ٢١

Translated:

"(17) So have they not noticed the camel how he was created, (18) And the heavens, how is it exalted?, (19) And the mountains how is it established?, (20) And how is the earth spread?, (21) So give a warning, for you are the only ones who warn."[20]

The above verse shows how God stimulates man to think about how the biological processes of camels are created. Encourage everyone to think about the things around them, such as the sky, mountains, even the cognitive factors of the earth that we have stepped on, namely the physical environment, maturity, social environment and justice (personal interaction) and environment and physical experience). Human meditation on the environment is part of "mental activity" (a key term in psychological research). But what is interesting about the above verse (QS. al-Ghasyiyah) is that the excitement of thinking is accompanied by a command to remind (فذكر). Reminders are activities that stimulate others to remember something. Memory is also a type of mental activity which in psychological terms is called memory.

Then in the word of God, the letter az-Zumar in verse 9, is said:

أَمَّنۡ هُوَ قَٰنِتٌ ءَانَآءَ ٱلَّيۡلِ سَاجِدٗا وَقَآئِمٗا يَحۡذَرُ ٱلۡأٓخِرَةَ وَيَرۡجُواْ رَحۡمَةَ رَبِّهِۦۗ قُلۡ هَلۡ يَسۡتَوِي ٱلَّذِينَ يَعۡلَمُونَ وَٱلَّذِينَ لَا يَعۡلَمُونَۗ إِنَّمَا يَتَذَكَّرُ أُوْلُواْ ٱلۡأَلۡبَٰبِ ٩

Translated:

"Are you the luckier guy? Or are you a man who kneels and stands at night, and he is afraid? It will be hereditary, and hope for the mercy of his Lord. Say, "Are those who know

[19]Kementerian Agama RI, *Al-Qur'an dan Terjemahnya* (Bandung: Diponegoro, 2014), h. 597 .

[20]Kementerian Agama RI, *Al-Qur'an dan Terjemahnya,* h. 592.

the same as those who do not?" Surely the one who can learn is the one who is intelligent."(QS. Az-Zumar/39: 9).”[21]

From this verse we can see how important the human mind is as a means of acquiring knowledge, and it can benefit oneself and others. Because people who are knowledgeable are different from people who do not knowledge. People who are higher than people who don't have knowledge. Knowledge can only be gained through the learning process. Therefore, it is very important to study the position of the human brain here through the thought process. This is why God requires people to learn.

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[21]Kementerian Agama RI, *Al-Qur'an dan Terjemahnya,* h. 458.