



CONSTRUCTIVISM LEARNING THEORY IN EDUCATION: CHARACTERISTICS, STEPS AND LEARNING MODELS

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ABSTRACT

Education seeks to build the best quality human resources for the future. One way to make this happen is by knowing the various forms of learning theories that function so that the process of errors in learning can be minimized. Apart from that, to increase students' enthusiasm for learning, teachers must innovate, including by using a constructivist approach to learning. So this research aims to describe the Constructivist Learning Theory in Education. The method used is a literature study with a qualitative descriptive approach, collecting data from primary and secondary sources, then analyzing the content of relevant discussions and drawing conclusions. The results of the research show that constructivist learning theory is an approach to the individual learning process in which it has principles and characteristics to answer various relevant problems, adapts to the current curriculum, focuses on student activity, and participates in assessing students' opinions when they express their opinions. The steps must include apperception, exploration, consolidation, attitude formation, and assessment using a format. Meanwhile, several learning models that are currently running are based on constructivism, including Problem-Based Learning, Authentic Learning, Inquiry-Based Learning, and Cooperative Learning.

Keywords: Learning Theory, Constructivism, Education, Learning Models

INTRODUCTION

Education is interpreted as a process and effort that educators must consciously make to influence, guide, motivate, and be an example for students so that they can develop their potential and adapt to their environment so that they will continue to change for the better from time to time. So it could be said that education seems like a primary need that cannot be separated from human life. Meanwhile, in the educational process, learning is the core thing that must be done because there is interaction between teachers and students (Yunarti, 2017).

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In this interaction, there is a learning process carried out by students and teaching which is carried out by the teacher. Apart from that, this teaching and learning process also involves human mental activity as an interactive social creature which is often relatively free and easy to change because of its activities together with its environment so that it has an impact on its behavior and thought patterns such as from not being able to be able to, from not knowing to You know, from having less morals to being more moral, and other than that (Slavin, 2006).

Human change in a better direction is an effort to develop oneself and maintain life because a person can easily understand a new concept or become someone more skilled in cognitive, affective, or psychomotor matters just by going through a process called learning. Then apart from learning, another process that can change a person in a better direction is the process of experience. This is because as time goes by when someone is in the process of learning they will never be able to escape from mistakes (Idrus, 2019).

To minimize the number of learning mistakes made, usually a person, whether consciously or not, has carried out his learning tasks using various theories to optimally achieve something that is desired and expected. Such as behavioristic learning theory, humanistic learning theory, cognitive learning theory, and constructivist learning theory (Simanjuntak, 2018). These various learning theories give educators more freedom to determine the initial concept of learning for students so that they do not give rise to problems with learning difficulties later on. The essence of teaching is to convey ideas and at the same time change students' existing conceptions so that they are more carefully constructed and can change them in a better direction.

It's just that in the current era, educators need to be creative and innovative so that students are more enthusiastic in learning so they don't constantly lecture or tell stories like the condition of most educators' teaching models today (Pandie et. al., 2022). However, educators can do it in other ways, such as problem-solving, where this method is part of the constructivist learning theory, where students are given direct opportunities to interact with concrete objects so that the desired learning goals can be achieved more effectively and efficiently. From this background, the author is interested in discussing constructivist learning theory in education.

Meaning of Learning Theory

The meaning of learning theory is to explain descriptively how the learning process occurs optimally because one person influences other people. Later will be provided an overview of the results of the interaction between the method and the students' psychological conditions, which aims to make it easier for students to learn. The specialty is that if students know learning theory then they will be more conceptual about their thought patterns, their brain will work optimally, they will also be more systematic in determining goals because of their clarity and they will be more enthusiastic in seeking knowledge from various sources when doing assignments (Aslan, 2018). It's just that students will need quite a long time to study learning theory so sometimes they forget that they don't pay attention to the psychological side of themselves when studying the material in depth. Meanwhile, in another opinion, it is said that learning theory is a conceptual framework for how a person acquires, processes, and stores knowledge during the learning process (Agus Pribadi, 2023).

This research uses a qualitative method with a library study approach, namely by collecting various library sources ranging from books, journal articles, websites, ebooks, or other relevant sources, both primary and secondary (Nurhuda, 2022). After the data is collected, it is then analyzed using a content analysis model, namely reducing, presenting, and finally drawing conclusions that can be accounted for to answer the problem (Nurhuda & Putri, 2023).

Various Learning Theories

Learning theories themselves consist of various kinds, some of which are:

1. Behavioristic Learning Theory means that it can be said that there is a learning process if a person's behavior changes as a result of a stimulus and response. So the most important thing here according to this theory is the input, namely the teacher provides stimulation and the output is the student who responds so that all changes in behavior that occur must be measurable and observable, in other words, this theory prioritizes measurement. Several figures who supported and initiated this theory include Thorndike, Watson, Clark Hull, Edwin Guthrie, and Skinner (Nahar, 2016).

When behavioristic learning theory has become a school of belief, it becomes behaviorism, which means that psychologically it only looks at individuals from the physical side and does not recognize feelings, talents, intelligence, and interests. Of the several behaviorist theory figures who have been mentioned, Skinner was the figure who had the most influence on the development of this theory. Apart from that, this theory still dominates today, starting from kindergartens to universities where the way to shape behavior is through drill (habituation) accompanied by punishment as people who learn must be faced with clear rules to be disciplined.

2. Cognitivism Learning Theory can be interpreted as learning if a person's mental changes have occurred which are reflected in different behaviors so the learning process must be accompanied by belief, intention, motivation, and so on. Examples of this theory include remembering someone's telephone number and other things. Several figures who support and trigger this theory include Piaget, David Ausubel, Jerome Bruner, and Albert Bandura (Nurhadi, 2020).

Cognitivist theory, when applied in the learning process, is based on a person's activities in organizing information and internal learning processes. In this case, cognitive learning theory has been widely used in formulating learning objectives, developing strategies, and providing freedom and active involvement of students by following the principle of having stages in students' thinking processes in certain periods (such as from simple patterns to concrete patterns), introduction to PIAUD and elementary school children regarding concrete objects, linking them to student experiences, and the existence of individual differences. It's just that at the implementation level, there are problems where the theory is not comprehensive for all levels of education and is very difficult to put into practice at advanced schools.

3. Humanistic Learning Theory, which means encouraging someone to develop a curious nature, a desire to investigate the world, and a desire to continue to progress creatively so that a sense of caring and mutual respect arises between fellow humans without any prejudice towards other people so that a sense of security arises between them. So it can

be said that this theory is a form of learning process that must lead to the human soul itself (Perni, 2018).

This theory is also considered successful and ideal if it can enable the student to understand himself and his environment so that he can actualize himself maximally and as well as possible. Some of the principles of this learning theory include learning that focuses on developing their potential as human beings, where they need to fulfill and fill the emptiness of their souls in the form of spiritual, emotional, and intellectual materials so that they do not only study teaching materials. The next principles are natural learning, learning relevance, learning perception, learning experience, learning self-confidence, and learning social sensitivity.

Some of the experts who coined this theory were Carl Rogers and Arthur Combs. Meanwhile, the application exemplifies the role of the teacher as a facilitator, companion, example, and motivator for students so that the meaning of learning becomes more meaningful in their lives. The success of this theory is characterized by students feeling enthusiastic, and happy to take the initiative, changing behavior, changing thought patterns, and being able to act of their own accord. He also became a person who was brave, free, and responsible for his actions without violating applicable rules, discipline, norms, or ethics.

4. Constructivist Learning Theory, means that the learning process places more emphasis on the process of constructing experience and freedom in exploring knowledge. From there students become more creative in thinking, and expressing their ideas until they can create a conducive learning environment. This happened because constructivism had followers so it became a school of constructivism, which is a philosophy of knowledge that emphasizes that a person's knowledge can be built on his formation (Sugrah, 2019).

Apart from that, this theory was also put forward by two famous experts, namely Piaget and Vygotsky. Some examples of applications of constructivist theory in everyday life include discussions with colleagues, concrete experiences in the laboratory, and the assumption that knowledge can be reformulated and created either objectively or subjectively. This also provides an understanding that the theory above emphasizes the process rather than the results. Apart from that, this theory also assumes that knowledge is not the result of a "gift" from other people such as teachers, but is the result of a construction process carried out by each individual.

CONSTRUCTIVIST LEARNING THEORY IN EDUCATION

Constructivist Approach to Learning

Constructivism is defined as an approach that attempts to build knowledge by adapting the cognitive structure of new information to previously obtained information. So it can be said that constructivism has characteristics that can be organized independently by individuals along with their particular environment to build knowledge so that it will encourage the development of natural curiosity (Yatim, 2009). Meanwhile, in another opinion, it is said that constructivism explains how students can gain knowledge when interacting with the environment. Thus, it can be said that constructivism is defined as a situation where individuals believe and respect the knowledge that is the result of the product of their activities

Meanwhile, an approach is a set of assumptions that can be justified in the form of the nature of language, the nature of learning, and other things used to achieve pedagogical goals (Wardoyo, 2013). So, it can be concluded that the constructivist approach is a set of assumptions that can be justified theoretically to achieve pedagogical goals, namely a situation where a person acquires knowledge as a product of his brain and from his organizational activities to encourage natural curiosity. Apart from that, the aim of this approach is, firstly, so that the learning process becomes dynamic, active, and generative. Both students are expected to be able to connect information simultaneously and sequentially because previous knowledge is still there when they come together to form new knowledge.

Principles and Characteristics of Constructivism

The most basic thing about this theory is that educators should help students' learning process by building their knowledge independently so that educators do not only focus on providing knowledge. If you do this, the information received by students will feel more meaningful, and they will have the opportunity to express their ideas (Sumarmo, 2013). All of this can happen if several basic principles that must exist in constructivism theory are fulfilled, including establishing the importance of a question, answering various relevant problems, adapting to the current curriculum, assessing students' opinions when they express their opinions, and in the learning context educators only help. because knowledge will not be able to transfer if students are not active (Mulyasa, 2007).

Meanwhile, the Constructivist learning theory itself also has characteristics in building human resources in the future by developing all the potential they have so that the concept from UNESCO is implemented regarding a continuous learning process to find one's identity or what is usually called learn to be (Herliani et al., 2021). Some of these characteristics include learning that is student-centered, integrating old knowledge and new knowledge, having different views in students, seeking knowledge naturally, learning that is contextual so that it can lead to real experiences, and finally a fun learning process, competitive, cooperative, creative, active and innovative.

Meanwhile, in another opinion, it is said that constructivist learning theory has special characteristics where students are born as humans who are always thirsty and curious about something so it is conceptualized into several characteristics as follows: first, developing alternative strategies for obtaining and analyzing information. Second, it is possible to have various perspectives in the learning process. Third, students become the main actors in the learning process. Fourth, educators become facilitators, mentors, and tutors in the student learning process. Fifth, there is an authentic evaluation related to the learning activities obtained with real problems that occur in society (Putrayasa, 2013).

From the characteristics above, it can be said that constructivist learning theory has principles and characteristics that are centered on students during the learning process, then some problems must be solved, the process of finding answers, then social interactions with teachers or peers, and finally the building of overall understanding. independent. This is also by the verse in the Al-Qur'an regarding how humans are always stimulated to continue thinking with the sentences *Afala ta'qilun*, *afala tadzakkarun*, and other things. Then in Surah Al-Ghasiyah verses 17-20, Allah also stimulates humans to see how camels were created,

how the sky was raised, how mountains were firmly planted, and how the earth was spread out (Nurhuda et al., 2023).

Strengths and Weaknesses of Constructivist Learning Theory

In implementing the learning process, of course, when applying a learning theory, there will be something special about why this theory is widely used, even in the current era where the independent curriculum is the basis for the Ministry of Education and Culture, Research and Technology in making policies and regulations, of course, this learning theory is increasingly being used (Suparno, 2001). Some of the advantages include that students will be active in learning, the learning process will be more meaningful and enjoyable for students, it will be relevant to social reality, build students' knowledge independently, collaboration will be formed between groups and students will have a gentle character because they feel appreciated.

Meanwhile, even though the constructivist learning theory explains many advantages, there are still some small notes regarding its shortcomings so that educators can anticipate them, including not all students can easily find the answers themselves, smart students can't wait for their friends who haven't finished yet, it requires a process. new adaptations and require a long time for students who are somewhat lacking and weak (Wardoyo, 2013). The shortcomings that have been mentioned can be minimized if the teacher can guide all students so that they can find their answers, then provide additional special time for somewhat weak students, and at the same time provide understanding and advice so that other students who have finished can respect their friends and be patient in achieving learning goals.

Steps to a Constructivist Approach to Learning

The steps in the learning process using a constructivist approach include the following (Supraptini, 2015):

1. Warm-up or Apperception, which in the learning process must start with things that are interesting and useful for students, such as asking about news, motivating, and so on.
2. Exploration, which consists of introducing new material, and then linking it to old material while using the most appropriate methodology so that it is easily accepted by students as understanding.
3. Consolidation of Learning, which includes students' activeness in interpreting or understanding the material, then their astuteness in problem solving/solving problems, and most importantly connecting the material studied with various aspects in real life so that all the material that has been studied can be processed into parts from student experiences.
4. Formation of Attitudes and Behavior, where students are encouraged to apply what they have learned in everyday life, as well as developing attitudes and behavior in students so that they become good habits with a certain methodology from the teacher.
5. Formative Assessment, which was developed by teachers to assess student learning outcomes, as well as identify problems that occur to minimize them so that in the future it

won't be like that again. Apart from that, this assessment can also be used to see students' weaknesses and then find solutions using other alternative learning methods.

Learning Models Based on Constructivism Theory

Learning models that reflect constructivism theory because they by their principles and characteristics include problem-based learning, inquiry-based learning, cooperative learning, and authentic learning. The detailed explanation is as follows:

1. Problem Based Learning where students try to solve problems independently accompanied by direction from the teacher as a facilitator so that the learning process can be carried out in a focused manner. Several things that need to be considered in this learning model include instructional objectives, students' initial knowledge, subject matter/material presented, supporting facilities and time allocation, number of students, experience, and teaching authority (Yamin, 2008).
2. Authentic Learning, where the learning process takes place directly in the real world, is often called situated learning. This learning can occur through Modeling (the teacher demonstrates the learning tasks that will be carried out by students), Coaching (Training or direction when students carry out these tasks), Scaffolding (Facilities that make students' tasks easier), Articulation (Are certain formulas that make it easier for students to learn independently), Reflection by comparing so that students' performance can be maximized, and finally Exploration applies students' abilities to other situations (Muijs & Reynolds, 2008).
3. Inquiry-based learning is where in the learning process students are required to be active in asking, examining, and investigating something to obtain information logically, critically, systematically, and analytically. This learning model aims to increase students' potential and abilities both cognitively, affectively, and psychomotorically based on Orientation, Solving Problems, Proposing Hypotheses, Collecting Data, Testing Hypotheses, and Formulating Conclusions (Trianto, 2010). Then in the evaluation process, he uses Observation, Student Performance, Conferences, Portfolios, and Products.
4. Cooperative Learning is interpreted as learning through joint activities so that it can form a learning community in groups. So in the learning process, there is interaction between exchanging ideas, and discussions, those who don't know become those who know, increasing the attitude of helping each other and other things, which in essence changes students in a better direction. Some of the characteristics of this learning model are that the group is made up of diverse students (from high level to low level), interdependence, individual responsibility, equal division of tasks between individuals, communication, and group evaluation at the end of the assignment. Apart from that, this learning model aims to achieve optimal learning outcomes, develop social skills, and accept the existence of individual differences in students (Komalasari, 2011).

CONCLUSION

From this explanation, it can be said that learning theory is descriptive content related to the interaction process during which the individual attempts to change in a better direction with the guidance of educators, their awareness, or encouragement from the surrounding environment. Learning theories are divided into several types, including behavioristic, cognitive, humanistic, and constructivist. One of these theories has now become a school that is widely implemented by most people, which is often called constructivism, which is an approach to individual learning. It has principles and characteristics to answer various relevant problems, adapt to the current curriculum, focus on student activity, and participate in assessing students' opinions when they express their opinions. The steps must include apperception, exploration, consolidation, attitude formation, and assessment using a format. Meanwhile, several learning models that are currently running, and are formed based on constructivism, include Problem-Based Learning, Authentic Learning, Inquiry Learning, and Cooperative Learning.

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