



## **Constructivism Theory Of Learning Solutions During The Covid-19 Pandemic In Indonesia**

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### **ABSTRACT**

*Constructivism implies that learners are encouraged to construct their own knowledge instead of copying it from an authority, be it a book or a teacher, in realistic situations instead of decontextualised, formal situations such as propagated in traditional textbooks, and together with others instead of on their own. Constructivism's central idea is that human knowledge is constructed, that learners build new knowledge upon the foundation of previous learning. This view of learning sharply contrasts with one in which learning is the passive transmission of information from one individual to another, a view in which reception, not construction, is key. Indonesia was affected by a new epidemic namely the covid-19 virus. Covid-19 has become a pandemic because the number of confirmed cases in Indonesia continues to increase, so Indonesia urgently needs procedures for controlling and preventing the covid-19 pandemic especially in education. The method used by the authors is literature review. This paper tries to analyze That the theory of constructivism is a learning solution during the covid-19 pandemic in Indonesia.*

**Keywords:** constructivism, pandemic covid-19

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## **INTRODUCTION**

Currently there are various new innovations in the world of education, especially in the learning process. One such innovation is constructivism. (Azhari & Somakim, 2014; Laia, 2018; Oviyanti, 2013) The selection of this approach is more because the learning makes students enthusiastic about the problems that exist so that they want to try to solve the problem independently.(Wahyuni dkk., 2019)

According to Brooks & Brooks the original constructivism was more of a philosophy and not a strategy, approach, or learning model. "Constructivism is not an instructional strategy to be deployed under appropriate conditions. Rather, constructivism is an underlying philosophy or way of seeing the world". (Pritchard & Woppard, 2013) Even according to Von Glaserfeld constructivism as "the theory of knowledge with roots in philosophy, psychology and cybernetics". Von Glaserfeld defines constructivism whatever its name is actively and creatively will always shape the conception of knowledge. (Von Glaserfeld, 1998)

He sees that knowledge as something that actively accepts anything through a healthy mind or through its communication and interaction. It is actively and creatively especially by building that knowledge.(Supardan, 2016; Yusuf & Arfiansyah, 2021) There is no single constructivism theory, but most constructivism has the same two main ideas, namely; —learners are active in constructing their own knowledge, and that social interaction is important for the construction of knowledge. Constructivism sees learning as more than just receiving and processing information submitted by teachers and texts. Learning is the construction of active and personal knowledge. So many theories in the field of cognitive science incorporate certain types of constructivism because those theories assume that individuals construct their own cognitive structures at the time they interpret their experiences in certain situations. (Bächtold, 2013; Driver & Oldham, 1986)

As a facilitator the teacher is responsible for the learning activities in the classroom. Among the responsibilities of teachers in learning is to stimulate and motivate students. Diagnose and overcome student difficulties and provide experiences to foster student understanding. (Amandu dkk., 2013; Nilson, 2016)

Therefore, teachers should provide and provide as many opportunities as possible to students to actively learn. In such a way that students can create, build, discuss, compare, work together, and experiment in their learning activities. (Barlian, 2013; Kirom, 2017) During this covid-19 pandemic, distance learning provides students with great opportunities to learn actively and teachers should appreciate the process more during learning than the results. From the explanation above, the writing of this journal aims to examine the application of constructivism theory as a learning solution during the covid-19 pandemic in Indonesia.

## RESEARCH RESULTS AND DISCUSSIONS

### A. Understanding Constructivism

Constructivism comes from the word constructivism and ism. Constructivism means to build, repair, and build. Whereas Ism in the Indonesian dictionary means understanding or flow. Constructivism is a philosophical school of knowledge that emphasizes that our knowledge is the result of our own construction (von Glaserfeld in Pannen et al., 2001:3).

Construction means constructive. Constructivism is a theory that gives freedom to human beings who want to learn or seek their needs with the ability to find their desires or needs with the help of facilitation of others. Construction means constructive, in the context of educational philosophy, Constructivism is an effort to build a modern cultured living arrangement. Constructivism is the basis of the thinking (philosophy) of contextual learning that knowledge is built by humans little by little, the result of which is expanded through a limited context and not suddenly. Knowledge is not a set of facts, concepts, or rules that are ready to be taken and remembered. Man must construct that knowledge and give meaning through real experience.

Constructivism theory is defined as generative learning, which is the act of creating something meaningful from what is learned. Constructivism is not really a new idea, what goes

through in our lives so far is a set and coaching experience after experience. This causes a person to have knowledge and become more dynamic.

The constructivism approach has several general concepts such as:

- 1) Students are actively building experience-based knowledge already in.
- 2) In the context of learning, students should build their own knowledge.
- 3) The importance of actively nurturing knowledge by students themselves through the process of influencing each other between previous learning and the latest learning.
- 4) The most important element in this theory is that a person actively develops his or her knowledge by comparing new information with his or her existing understanding.
- 5) Imbalance is the main learning motivational factor. This factor applies when a student realizes his ideas are inconsistent or in accordance with scientific knowledge.
- 6) The teaching materials provided should have an association with the student experience to attract students.

According to Wheatley (1991: 12) argued by proposing two main principles in learning with the theory of learning constructivism. First, knowledge can not be obtained passively, but actively by the cognitive structure of the student. Second, cognition functions are adaptive and help organize through real experiences that children have.

From the above understanding emphasizes how important the involvement of children actively in the process of hooking a number of ideas and constructing science through their environment. Hudoyo (1990: 4) specifically said that it is easier for a person to learn something if learning is based on what others already know. Therefore, to learn a new material, the experience of learning from a person will influence the occurrence of the learning process.

Constructivism theory is also the basis of contextual learning thinking that knowledge is built by humans little by little, the result of which is expanded through a limited context. Knowledge is not a set of facts, concepts or rules that are ready to be taken and remembered. Man must construct that knowledge and give meaning through real experience.

This theory of constructivism learning is the same as the experiential learning model, which is a model in which, the teaching and learning process that activates the learner to build knowledge and skills through his experience directly. Experiential Learning is a process by which knowledge is created through the transformation of experience. The result of knowledge from a combination of grasping and transforming experience (Kolb, 1984).

Constructivistic theory considers that learning is constructing the meaning of information and inputs that enter the brain. This constructive learning is often used to describe the type of learning that occurs during scientific discovery and creative problem solving in everyday life. In theory it also sees learners as individuals who are always examining new information that is contrary to existing principles and revising those principles if they are deemed to be no longer usable. This has the implication that learners should be actively involved in learning activities.

Thus, learning according to constructivism theory is not just memorization, but the process of constructing knowledge through experience. Knowledge is not the result of "giving" from others such as teachers, but the result of the constructive process carried out by each individual. Knowledge resulting from "giving" will not be meaningful. The knowledge gained through the process of constructing that knowledge by each individual will give deep meaning or more mastered and longer stored / remembered in each individual.

The purpose of this theory is as follows:

- 1) There is motivation for students that learning is the responsibility of the student itself.
- 2) Develop students' ability to ask questions and look for their own questions.
- 3) Helping students to develop a complete understanding and understanding of concepts.
- 4) Develop students' ability to become independent thinkers.
- 5) Put more emphasis on the learning process of how to learn it.

## **B. Characteristics of Constructivism**

According to Constructivism, learning is an active process of students constructing meaning, discourse, dialogue, physical experience, etc. Learning is also the process of assimilating and connecting the experience or information learned with the understanding that students already have so that their knowledge develops. Characteristics of constructivism:

- 1) Learning means shaping meaning. Meaning is created by students from what they see, hear, feel, and experience. The construction of that meaning is influenced by the notion that it already has.
- 2) The construction of meaning is a continuous process. Whenever faced with a new phenomenon or problem, students will always conduct reconstruction.
- 3) Learning is not a fact-gathering activity, but rather a process of developing thought by forming a new understanding. Learning is not a result of development, but rather a development itself, which demands the discovery and rearrangement of one's thinking.
- 4) The actual learning process occurs at the time of a person's scheme in a gap that stimulates further thought. Situation imbalance (disequilibrium) is a good situation to spur learning.
- 5) Learning outcomes are influenced by students' experience with the physical world and their environment.
- 6) A person's learning outcomes depend on what the student already knows, namely the concepts, objectives, and motivations that influence interaction with the materials studied.

## **C. Principles of Constructivism**

Broadly speaking, the principles of Constructivism applied in teaching and learning are:

- 1) Knowledge is built by the students themselves.
- 2) Knowledge cannot be transferred from the teacher's wrath, except only by the student's own activeness to reason.
- 3) Students actively construct continuously, so that there is always a change in scientific concept.
- 4) Teachers just help provide advice and situations so that the construction process runs smoothly.
- 5) Face issues relevant to students.
- 6) The structure of learning around the main concept of the importance of a question.
- 7) Seek and assess students' opinions.
- 8) Customize the curriculum to respond to student assumptions.

Of these there is only one principle that matters most is that teachers should not merely provide knowledge to students. Students must build knowledge in their own minds. A teacher can help with this process by teaching ways that make information very meaningful and highly relevant to students, by giving students the opportunity to discover or implement ideas themselves and by inviting students to realize and use their own strategies for learning. Teachers can provide ladders to students where they are intended to help them reach the level of discovery.

## **D. Construction Theory of Learning Solutions during the Covid-19 Pandemic in Indonesia**

Learning is the process of internalizing science into student schematics. In this process there are student activities as students and there are teacher activities as learners. Learning is done by planning, implementing, and evaluating by educators and then applied through classic meetings supported by appropriate media, tools, and materials.

The teacher's job as a learner is as a controller or director of the skills and knowledge that students will master. Meanwhile, students as students play an active role in carrying out teacher instruction to complete learning objectives reflected in competency achievement indicators. Based on this statement, learning can be interpreted as the process of internalization of science that occurs in the classroom involving teachers and students stoned with media, tools, methods, and materials that have been designed based on Indonesian education standards and curriculum development patterns in 2013.

In the 2013 curriculum, learning is focused on students, which then makes the role of teachers in delivering learning very limited. Students will find themselves or reconstruct the science they will master. Therefore, the theory of constructivism learning is very influential on the form of learning carried out by educators in developing the 2013 curriculum. In addition, the 2013 curriculum demands active and contextual learning. Active is learning that is designed to make students active in opinion, active in discussions, and active in completing tasks given by teachers, as an active learning effort on the learning steps a teacher must start with the division of learning groups. Contextual means meaningful learning that can be applied and beneficial to daily life.

Active and contextual learning will be carried out to the maximum if supported by adequate media, methods, tools, and materials. In this era of technology development, various forms of media, tools, and materials in digital are growing rapidly. Even the form of learning is done in a virtual form. Through virtual learning or online learning, learning is not limited by space and time. Interaction between teachers and students takes place anytime and anywhere. Online learning is an advantage for teachers and students who can make students more active in constructing science.

Online learning can be a solution for distance learning in the event of a natural disaster. As happened when the government established a social distancing policy. Social distancing is implemented by the government in order to limit human interaction and keep people away from crowds in order to avoid the spread of the Covid-19 virus.

This policy makes teaching and learning activities in the context of face-to-face suspended. The government replaced learning with an online learning system through an existing online learning application. With this policy, making online learning that was not optimally applied is the only option in the form of learning.

## CONCLUSION

From the discussion above, it can be concluded that in the 2013 curriculum the learning is centered on students who then make the role of teachers in delivering learning is very limited. Students will find themselves or reconstruct the science they will master. Therefore, the theory of constructivism learning is very influential on the form of learning carried out by educators in developing the 2013 curriculum. In addition, the 2013 curriculum demands active and contextual learning.

Active and contextual learning will be carried out to the maximum if supported by adequate media, methods, tools, and materials. In this era of technology development, various forms of media, tools, and materials in digital are growing rapidly. Even the form of learning is done in a virtual form. Through virtual learning or online learning, which is currently the solution when the covid-19 pandemic in Indonesia, because learning is not limited by space and time. Interaction between teachers and students takes place anytime and anywhere. Online learning is an advantage for teachers and students who can make students more active in constructing science. Therefore, the theory of constructivism is a solution in learning during the covid-19 pandemic in Indonesia.

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