

The history about constructivism education essay

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Formalization of the theory of constructivism is generally attributed to Jean Piaget. He suggested that individuals construct new knowledge from their experiences. Constructivism is a theory to explain how knowledge is constructed in the human being when information comes into contact with existing knowledge that had been developed by experiences. It has its roots in cognitive psychology and biology and an approach to education that lays emphasis on the ways knowledge is created in order to adapt to the world. The theory suggests that humans construct knowledge and meaning from their experiences. [http://en.wikipedia.org/wiki/Constructivism_\(learning_theory\)](http://en.wikipedia.org/wiki/Constructivism_(learning_theory))

Constructivism states that learning is an active, contextualized process of constructing knowledge rather than acquiring it. Knowledge is constructed based on personal experiences and hypotheses of the environment. Learners continuously test these hypotheses through social negotiation. Each person has a different interpretation and construction of knowledge process. <http://www.eric.ed.gov/PDFS/ED444966.pdf>

A person constructs knowledge through experience. The person then forms his own perspective of the way the knowledge should be interpreted and then implements this with his existing thought of knowledge. It focuses that everyone has a different perspective of the way knowledge should be interpreted when they come across an experience.

Constructivism's central idea is that human knowledge is constructed, that learners build new Knowledge upon the foundation of previous learning.

Constructivism is made of two different parts: Social constructivism
Cognitive constructivism
Social constructivism views each learner as a unique individual with unique needs and backgrounds. Social Constructivism encourages the learners to arrive at their own version of the truth,

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influenced by their background, culture of embedded worldview. From the social constructivist viewpoint, it is thus important to take into account the background and culture of the learner throughout the learning process, as this background also helps to shape the knowledge and truth that the learner creates, discovers and attains in the learning process. (Wertsch 1997).

<http://ccti.colfinder.org/sites/default/files/guyana/resources/TL/TL>

[%20M03U01%20Docs/Constructivism.pdf](http://ccti.colfinder.org/sites/default/files/guyana/resources/TL/TL%20M03U01%20Docs/Constructivism.pdf) Cognitive constructivism is based on the work of Jean Piaget. His theory has two major parts: an ages and stages component that predicts what children can and cannot understand at different ages, and a theory of development that describes how learners develop cognitive abilities. Piaget's theory of cognitive development proposes that humans cannot be given information, in which they immediately understand and use. Instead, learners must construct their own knowledge. They build their knowledge through experience. Experiences enable them to create schemas — mental models of the world. These schemas are changed, enlarged, and made more sophisticated through two complimentary processes: assimilation and accommodation. Cognitive constructivism is based on two different senses of construction. First, on the idea that people learn by actively constructing new knowledge, not by having information poured into their heads. Moreover, constructivism asserts that people learn with particular effectiveness when they are engaged in constructing personally meaningful artifacts (e. g. computer programs, animations). <http://www.nwlink.com/~donclark/hrd/history/constructivism.html>

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Critical reflection

Critical Reflection implements the process of analyzing, reconsidering and questioning experiences . Four activities are central to critical reflection (Brookfield 1988): Assumption analysis - This is the first step in the critical reflection process. It involves thinking in such a manner that it challenges our beliefs, values, cultural practices, and social structures in order to assess their impact on our daily proceedings. Assumptions are our way of seeing reality and to aid us in describing how the order of relationships. Contextual awareness - Realizing that our assumptions are socially and personally created in a specific historical and cultural context. Imaginative speculation - Imagining alternative ways of thinking about phenomena in order to provide an opportunity to challenge our prevailing ways of knowing and acting. Reflective skepticism - Questioning of universal truth claims or unexamined patterns of interaction through the prior three activities - assumption analysis, contextual awareness, and imaginative speculation. It is the ability to think about a subject so that the available evidence from that subject's field is suspended or temporarily rejected in order to establish the truth or viability of a proposition or action. <http://www.nwlink.com/~donclark/hrd/development/reflection.html> An important part of critical reflection is asking ourselves " why" questions about teaching and learning, considering possible reasons why we think a class, assignment etc went well, or didn't, and considering alternatives for how and why we might do things differently. Thinking about why we do things, whether they have gone as intended, why we think they worked well or didn't and how we might do them differently next time? <http://www.iml.uts.edu.au/scholarship-research/reflection.html> " Critically reflective teaching happens when we <https://assignbuster.com/the-history-about-constructivism-education-essay/>

identify and scrutinise the assumptions that undergird how we work. The most effective way to become aware of these assumptions is to view our practice from different perspectives. Seeing how we think and work through different lenses is the core process of reflective practice".(Brookfield 1995, p. xii-xiii)

Lateral Thinking

Lateral thinking is solving problems through an indirect and creative approach, using reasoning that is not immediately obvious and involving ideas that may not be obtainable by using only traditional step-by-step logic. The term was coined in 1967 by Edward de Bono. Lateral thinking is more concerned with the movement value of statements and ideas. A person uses lateral thinking to move from one known idea to creating new ideas. Edward de Bono defines four types of thinking tools: Idea generating tools that are designed to break current thinking patterns—routine patterns, the status quoFocus tools that are designed to broaden where to search for new ideasHarvest tools that are designed to ensure more value is received from idea generating outputTreatment tools that are designed to consider real-world constraints, resources, and supporthttp://en.wikipedia.org/wiki/Lateral_thinking

Edward de Bono has written extensively about the process of lateral thinking--the generation of novel solutions to problems.

The point of lateral thinking is that many problems require a different perspective to solve successfully. <http://www.tuti.com.au/2003aba.pdf>

Example of Lateral ThinkingThe following anecdote is provided by DeBono (1967). A merchant who owes money to a money lender agrees to settle the debt based upon the choice of two stones (one black, one white) from a

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money bag. If his daughter chooses the white stone, the debt is cancelled; if she picks the black stone, the moneylender gets the merchant's daughter. However, the moneylender 'fixes' the outcome by putting two black stones in the bag. The daughter sees this and when she picks a stone out of the bag, immediately drops it onto the path full of other stones. She then points out that the stone she picked must have been the opposite color of the one remaining in the bag. Unwilling to be unveiled as dishonest, the moneylender must agree and cancel the debt. The daughter has solved an intractable problem through the use of lateral thinking. DeBono, E. (1967). *New Think: The Use of Lateral Thinking in the Generation of New Ideas*. New York: Basic Books. Question Learning is a lifelong process of keeping abreast of change. To make 'meaning' means to make sense of an experience, we make an interpretation of it. When we subsequently use this interpretation to guide decision-making or action, then making 'meaning' becomes 'learning'. We learn differently when we are learning to perform than when we are learning to understand what is being communicated to us. Reflection enables us to correct distortions in our beliefs and errors in problem-solving. Critical reflection involves a critique of the presuppositions on which our beliefs have been built. Learning may be defined as 'the process of making a new or revised interpretation of the meaning of an experience, which guides subsequent understanding, appreciation and action'. What we perceive and fail to perceive, and what we think and fail to think are powerfully influenced by habits of expectation that constitute our frame of reference, that is, a set of assumptions that structure the way we interpret our experiences. It is not possible to understand the nature of adult learning or education without taking into account the cardinal role played by these habits in making

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meaning. <http://www.graham-russell-pead.co.uk/articles-pdf/critical-reflection.pdf>