Original Article

Constructivism: A Practical Guide For Training Colleges Teachers

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CONCEPT AND MEANING OF CONSTRUCTIVISM

Constructivism is a holistic philosophy. Tenets of this philosophy includes : the need to situated learning and problem solving in real life contexts where the environment is very rich in information and there are no right answers ; authentic tasks ; cognitive apprenticeship ; meaning negotiated through interactions with others nurturance of reflexivity and learning in ill-structured domains.

Constructivist believes that it is important to encourage reflexivity, the process whereby a student becomes aware of how their own thinking processes work. The concept of constructivism emphasizes, the student as being the active learner, playing a central role in mediating and controlling learning. It maintains that individual creates or construct their own new understanding, or knowledge through the interaction of previous experiences, ideas, believes, events, etc, and activities with which they come in contact. Then, individuals make choices about, what new ideas to accepts and how to fit them into their established views of the world.

The generic definition of constructivism is centered on the active participation of learner. The word constructivism has its etymological origin form a Latin word "conserver" that mean "to arrange or give structure". It is a doctrine according to which perceptions, memories and other mental structures are explored. It is the "Art of life" and its goal is to write purely artistic forms with utilitarian value. It is the theory of teaching and learning that draw out range of teaching practices including inquiry-based learning and cooperative learning.

ORIGIN OF THE CONCEPT

As a philosophy of learning ; constructivism can be traced to the eighteenth century and the works of the first constructivist Philosopher *Giambattista Vico 1710* commented that "one only knows something if one can explain it," it mean human can only clearly understand what they have themselves constructed.

Many others worked with these ideas, but the major philosophers behind this theory are *Dewey, Piaget, Vygotsky* and *Novak*. Piaget believed that humans learn through the construction of one logical structure after another. The implication of this theory have shaped the foundation for constructivist education. According to Dewey, inquiry is a key part of this learning. While, Vygotshy introduced the social aspect of learning into constructivism.

Constructivism is a theory of knowledge with its roots in philosophy, psychology, and cybernetics. It asserts two main principles whose application has for reaching consequences for the study of cognitive development and learning as well as for the practice of teaching, psycho-therapy and interpersonal management in general Constructivism is not a unitary theoretical position rather it is representing a continuum. Typically, this continuum is divided into three broad categories *viz.*, Cognitive constructivism social constructivism and Radical constructivism. It can be illustrated as below:

1. COGNİTİVE CONSTRUCTİVİSM

It represents one end, or extreme of the Constructivism continuum and is typically associated with information processing and its *reliance on the component processes of cognition*. It emphasizes that knowledge acquisition is an adaptive process and results from active cognizing by the individual learner. It believes in external nature of knowledge and the belief. That on independent reality exists and is knowable to individual knowledge, thus is the result of the accurate internalization and (re) construction of external reality.

Cognitive Constructivism, and its historical association with information processing, led to a multitude of significant empirical findings regarding learning, memory and cognition, including *schema theory,*

working memory models, neurological models of brain function etc. It led to successful of advanced organizer, concept map, elaborative practice, problem solving strategies (e.g. ideal, identifying problems, defined goals, etc.
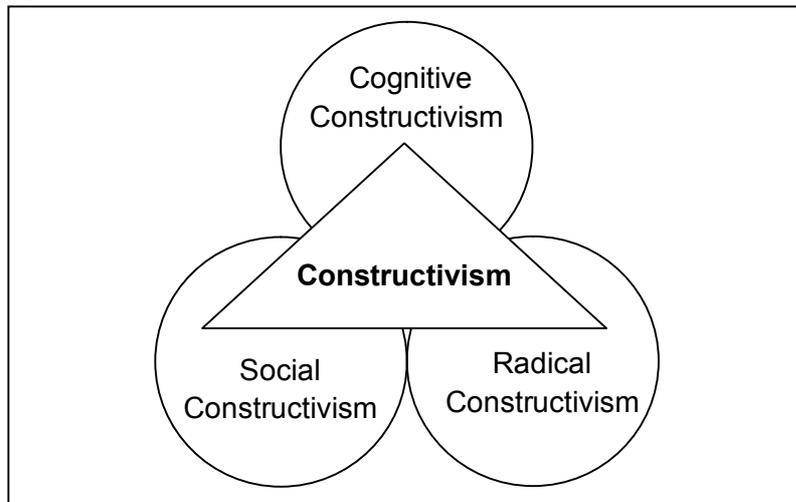
2. SOCIAL CONSTRUCTIVISM
Knowledge is the result of social interaction and language usage, and thus is a shared, rather than an individual, experiences,

Social Constructivism, an another strand of Constructivism idea has been *identified by Vygotsky*, who believed that *culture and social interactions are essential factors in shaping knowledge*. According to Vygotshy the child's mind is inherently social in nature and so. Speech moves from communicative social to inner egocentric. Therefore, he claims that thought develops from society to the individual.

A major focus of social Constructivism is to uncover the ways in which individuals and group participation in the creation of their perceived social reality. Socially constructed reality is seen as an ongoing, dynamics, process ; reality is reproduced big people activity on their interpretations and their knowledge of it.

3. RADICAL CONSTRUCTIVISM
If represents the opposite end of the constructivism. It fully embraces the basic *epistemological tenets, Knowledge acquisition* is an adaptive process that results form active cognizing by the individual learner, rendering on experientially based mind, not mind that reflects some external reality. In addition, there is a current movement within radical constructivism to more fully accepted the fourth epistemological tenet, thus recognizing social interactions as a source of knowledge. The adaptive nature of knowledge.

FİVE STAGES OF CONSTRUCTİVE LESSON PLANNİNG
Stage I : To Engage the Students in Construction at Task
In this stage, the students first encounter and identify the instructional task. Then, they make connections between past and present learning experiences, and lay the organizational ground work for the activities ahead. And finally stimulate their involvement in the anticipation of these activities ahead identify the relevance.

The various ways to engage the students are asking questions, defining the problems, showing surprising events, posing the problematic situations, etc.

Stage II : To Explore the Constructional Tasks.
In this stage, the opportunity to get involve directly with phenomena and materials. While they are involved in these activities they develop a grounding experiences with the phenomena. As they work is team, student's builds a base of woman experience which develops in them the skill of sharing and communicating. The teachers acts as a facilitator, provides materials, guides the students.

Stage III : To explain by the students what they have learned
In this stage, learners start explaining the discoveries, processes, concepts that have been learned by them through written, verbal or creative projects, communication occurs between peers, the facilitator or within the learner himself. Facilitator or within the learners himself. Facilitator supplies resources feedback, vocabulary and clarifies the misconceptions of the learner. Created work such as writing, drawing, video or tape recordings are communication that provides recordable evidence of the learners development, progress and growth.

Stage IV : To elaborate the constructionist concept by the students.

In this, students expand the concepts they have learned, make connections to other related concepts and apply their understanding in practical life. They connect it to other concepts and try to understand it, and apply to real life situations. This also leads to new inquiry process.

Stage V : To evaluate the constructivists concepts by the teachers.

In this, diagnosis in done by teacher to determine if the learner has attained understanding of concepts and knowledge. Evaluation and assessment can occur throughout the instructional process. Some of the tools that assists in this process are: expected outcome determined with the lesson design, teacher observation through checklist, students interview, project and problem-based learning products.

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