



## TRANSACTIONAL STRATEGIES: CONSTRUCTIVISM IN EDUCATION

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## KEYWORDS :

## INTRODUCTION:

Constructivism can be traced back to educational psychology in the work of Jean Piaget (1896–1980) identified with Piaget's theory of cognitive development. Piaget focused on how humans make meaning in relation to the interaction between their experiences and their ideas. His views tended to focus on human development in relation to what is occurring with an individual as distinct from development influenced by other persons. Lev Vygotsky's (1896-1934) theory of social constructivism emphasized the importance of sociocultural learning; how interactions with adults, more capable peers, and cognitive tools are internalized by learners to form mental constructs through the zone of proximal development. Expanding upon Vygotsky's theory Jerome Bruner and other educational psychologists developed the important concept of instructional scaffolding, whereby the social or informational environment offers supports (or scaffolds) for learning that are gradually withdrawn as they become internalized.

Constructivism is relatively new word as far as its usage in educational literature is concerned. Constructivism is an epistemology a philosophical explanation about the nature of knowledge; it describes how one attains, develops and uses cognitive process. It is based on the fundamental assumption that people create knowledge from the interaction between existing knowledge or beliefs and the new ideas or situations they encounter.

## MEANING:

Constructivism is a learning theory found in psychology which explains how people might acquire knowledge and learn. It therefore has direct application to education. The theory suggests that humans construct knowledge and meaning from their experiences. Constructivism is not a specific pedagogy. Piaget's theory of Constructivist learning has had wide ranging impact on learning theories and teaching methods in education and is an underlying theme of many education reform movements. Research support for constructivist teaching techniques has been mixed, with some research supporting these techniques and other research contradicting those results

## DEFINITION OF CONSTRUCTIVISM

Various scholars have been defined constructivism and elaborated or indicated a variety of aspects so that the concept got clarity and wide scope. A few of the definition have been discussed below

- By Davis, Mathur and Nodding (1990) It is assumed that learners have to construct their own knowledge individual a collectively. Each Learner has tool kit of concepts and skill with which he or she must construct knowledge to solve problems present by the environment. The role of the community other learners and teacher – is to provide the sitting, face the challenges, and after the support that will encourage mathematical construction.
- According to Brooks and Brooks (1993) Constructivism is not a theory about teaching. It is theory about knowledge and learning...the theory defines knowledge as temporary, developmental, socially mediated, and thus, non objectives.
- Von Glassfeld (1995) said knowledge, no matter how to be defined, is in the heads of persons and the thinking subject has no alternative but to construct what he or she knows on the basis of his or her own experience.
- According to Nola (1998) Constructivist allege that is we who constitute or construct on the basis of our theories or experience the allegedly unobservable items postulated in our theories.
- Naylor and Keogh (1999) suggested that, the central principles of this approach are that learners can only make senses of new

situation in term of their existing understanding, learning involves an active process in which learners construct meaning by linking new ideas with that existing knowledge.

- Jenkins (2000) said that constructivist of different persuasion commitment to the idea that the development of the understanding requires active engagement on the part of the learner

## What are the principles of constructivism?

- **Knowledge is constructed, rather than innate, or passively absorbed**

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

This prior knowledge influences what new or modified knowledge an individual will construct from new learning experiences (Phillips, 1995).

- **Learning is an active process**

The second notion is that learning is an active rather than a passive process.

The passive view of teaching views the learner as 'an empty vessel' to be filled with knowledge, whereas constructivism states that learners construct meaning only through active engagement with the world (such as experiments or real-world problem solving).

Information may be passively received, but understanding cannot be, for it must come from making meaningful connections between prior knowledge, new knowledge, and the processes involved in learning.

- **All knowledge is socially constructed**

Learning is a social activity - it is something we do together, in interaction with each other, rather than an abstract concept (Dewey, 1938). For example, Vygotsky (1978), believed that community plays a central role in the process of "making meaning." For Vygotsky, the environment in which children grow up will influence how they think and what they think about. Thus, all teaching and learning is a matter of sharing and negotiating socially constituted knowledge. For example, Vygotsky (1978) states cognitive development stems from social interactions from guided learning within the zone of proximal development as children and their partner's co-construct knowledge.

- **All knowledge is personal**

Each individual learner has a distinctive point of view, based on existing knowledge and values. This means that same lesson, teaching or activity may result in different learning by each pupil, as their subjective interpretations differ.

- **Learning exists in the mind**

The constructivist theory posits that knowledge can only exist within the human mind, and that it does not have to match any real world reality (Driscoll, 2000).

Learners will be constantly trying to develop their own individual mental model of the real world from their perceptions of that world.

As they perceive each new experience, learners will continually update their own mental models to reflect the new information, and will, therefore, construct their own interpretation of reality.

## What is the role of the teacher in a constructivist classroom?

The primary responsibility of the teacher is to create a collaborative

problem-solving environment where students become active participants in their own learning. From this perspective, a teacher acts as a facilitator of learning rather than an instructor.

The teacher makes sure he/she understands the students' preexisting conceptions, and guides the activity to address them and then build on them (Oliver, 2000). Scaffolding is a key feature of effective teaching, where the adult continually adjusts the level of his or her help in response to the learner's level of performance. In the classroom, scaffolding can include modeling a skill, providing hints or cues, and adapting material or activity (Copple & Bredekamp, 2009).

#### Characteristics:

Tam (2000) lists the following four basic characteristics of constructivist learning environments, which must be considered when implementing constructivist teaching strategies:

- Knowledge will be shared between teachers and students.
- Teachers and students will share authority.
- The teacher's role is one of a facilitator or guide.
- Learning groups will consist of small numbers of heterogeneous students.
- Developing understanding of concepts in ways that make sense to the learners
- Learning new things depends on how they are interpreted or understood in that context
- Learning taking place more with the help of social interaction
- Meaningful learning takes place when there are learning activities that require to be understood
- Engaging in meaningful discussion and conversation
- Understanding and making connections beyond what is taught
- There are various characteristics of constructivism some of them are following:
- Passive learning is less preferred than the active learning.
- Learning actually takes place in a good way within the communities of learners.
- Learners should learn the new information and then link this information with the information that they already have.

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#### Activities

In the constructivist classroom, students work primarily in groups to engage with daily activities. Constructivist teaching methods emphasize communication and social skills, as well as intellectual collaboration. This is different from a traditional classroom where students primarily work alone, learning through repetition and lecture. Activities encouraged in constructivist classrooms include:

- **Experimentation:** Students individually perform an experiment and then come together as a class to discuss the results.
- **Research projects:** Students research a topic and can present their findings to the class.
- **Field trips:** This allows students to put the concepts and ideas discussed in class in a real-world context. Field trips would often be followed by class discussions.
- **Films:** These provide visual context and thus bring another sense into the learning experience.
- **Class discussions:** This technique is used in all of the methods described above. It is one of the most important distinctions of constructivist teaching methods.
- **Campus wikis:** These provide learners with a platform for curating helpful learning resources.

#### CONCLUSION:

Constructivist approaches can also be used in online learning. Tools such as discussion forums, wikis and blogs can enable learners to actively construct knowledge. Because existing knowledge schemata are explicitly acknowledged as a starting point for new learning, constructivist approaches tend to validate individual and cultural differences and diversity.

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