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RELEVANCE OF CONSTRUCTIVIST APPROACH IN TEACHING & LEARNING

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Abstract

Constructivism is a set of assumptions governing the way people learn and make sense of the world. It's founded on the premise that, by reflecting on personal experiences, people create their own understanding of the world they live in. People need to come out of rote learning to discovery, enquiry, and problem solving learning where they learn through themselves, with their peer group, family and field experiences. In this competitive world learning is more comprehension includes both knowledge and attitude. In a constructivist classroom knowledge is constructed, pupils are active learners and collaborative work is done.

Key Words: Constructivism, Language, Learning, Classroom.

Introduction:

Constructivism is a philosophy of learning founded on the premise that, by reflecting on our experiences, we construct our own understanding of the world we live in. Each of us generates our own "rules" and "mental models," which we use to make sense of our experiences. Learning, therefore, is simply the process of adjusting our mental models to accommodate new experiences.

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Constructivism is a theory of knowledge (epistemology) that argues that humans generate knowledge and meaning from an interaction between their experiences and their ideas (During infancy, it is an interaction between their experiences and their reflexes or behavior-patterns -Piaget called these schemas). Constructivism is not a specific pedagogy, although it is often confused with constructionism, an educational theory developed by Seymour Papert, inspired by constructivist and experiential learning ideas of Jean Piaget. 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. Thus it is a theory based on observation and scientific study about how people learn.

A principal scholar and point of reference for educationalists interested in constructivism is Swiss philosopher and psychologist Jean Piaget (1896-1980). He suggested that people construct new knowledge by assimilating it with their internal representations of the world. Accommodation may be required, by reframing one's view of the world, in order to allow new experiences to fit. Thus constructivism is basically a theory based on observation and scientific study about how people will learn. It says that people will construct their own understanding and knowledge of the world through experiencing the things and reflecting on those experiences. To do this we must ask questions, explore and assess what we know.

Constructivism: Meaning

Constructivism is a set of assumptions governing the way people learn and make sense of the world. It's founded on the premise that, by reflecting on personal experiences, people create their own understanding of the world they live in. Constructivist teaching is based on constructivist learning theory. Constructivist teaching is based on the belief that learning occurs as learners are actively involved in a process of meaning and knowledge construction as opposed to passively receiving information. Learners are the makers of meaning and knowledge. Constructivist teaching fosters critical thinking, and creates motivated and independent learners. This theoretical framework holds that learning always builds upon knowledge that a student already knows; this prior knowledge is called a schema. Because all learning is filtered through pre-existing schemata, constructivists suggest that learning is more effective when a student is actively engaged in the learning process rather than attempting to receive knowledge passively

Constructivism: Guiding Principles

- Learning is a search for meaning. Therefore, learning must start with the issues around which students are actively trying to construct meaning.
- Meaning requires understanding wholes as well as parts. And parts must be understood in the context of wholes. Therefore, the learning process focuses on primary concepts, not isolated facts.
- ➤ In order to teach well, we must understand the mental models that students use to perceive the world and the assumptions they make to support those models.
- The purpose of learning is for an individual to construct his or her own meaning, not just memorize the "right" answers and regurgitate someone else's meaning. Since education is inherently interdisciplinary, the only valuable way to measure learning is to make the assessment part of the learning process, ensuring it provides students with information on the quality of their learning.

Constructivism: Important Ideas

- 1. Discovery Learning
- 2. Learning through debate
- 3. Learning through problem solving
- 4. Collaborative learning
- 5. Co-operative learning
- 6. Zone of Proximal Dent (ZPD)
- 7. Scaffolding
- 8. Learning is an active mental process

Honebein (1996) describes seven goals for the design of constructivist learning environments:

- ➤ Provide experience with the knowledge construction process;
- ➤ Provide experience in and appreciation for multiple perspectives;
- Embed learning in realistic and relevant contexts;
- Encourage ownership and voice in the learning process;
- > Embed learning in social experience;
- Encourage the use of multiple modes of representation;
- Encourage self-awareness in the knowledge construction process.

Jonassen (1994) illustrates how knowledge construction can be facilitated:

- Provide multiple representations of reality;
- Represent the natural complexity of the real world;
- Focus on knowledge construction, not reproduction;
- Present authentic tasks (contextualizing rather than abstracting instruction);
- ➤ Provide real-world, case-based learning environments, rather than pre-determined instructional sequences;
- > Foster reflective practice;
- ➤ Enable context-and content dependent knowledge construction;
- Support collaborative construction of knowledge through social negotiation.

Constructivism: Five E's

According to the Educational Psychologist the five E's of constructivism plays a vital role in preparing a lesson plan as follows:

- > Engage
- > Explore
- > Explain
- **Elaboration**
- > Evaluation

It is often associated with pedagogic approaches that promote "Active Learning" or "Learning by doing"

Constructivist Classroom: Student's Role

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Today constructivism influence the classroom strategy, teacher provides environment (constructive) to learn and reflect their own ideas and experiences in an innovative way. It is important to know that constructivism is not pedagogy; in fact constructivism is a theory describing how learning happens, regardless of whether learners are using their experiences to understand a lecture or following the instructions.

Children learn best when they are allowed to construct a personal understanding based on experiencing things and reflecting on those experiences. An individual's own knowledge, attitude and learning experiences shape one's unique perspective about the process of education which in turn influences one's decisions as an administrator, a manager or policy maker in adulthood. In a constructivist classroom knowledge is constructed, students are active learners and collaborative work is done.

Characteristics of a constructivist classroom are as follows:

- Learners are actively involved
- > Environment is democratic
- Activities are interactive and student-centered
- Teacher facilitates a process of learning in which students are encouraged to be responsible and autonomous

Constructivist Classroom: Teacher's Role

In the constructivist classroom, the teacher's role is to prompt and facilitate discussion. Thus, the teacher's main focus should be on guiding students by asking questions that will lead them to develop their own conclusions on the subject. According to constructivist approach, teacher should adapt the role of facilitator and good practitioner in the classroom and not a mere teacher (Bautrsfeld, 1995)

The qualities, capacities and skills that should be exhibited by a constructivist teacher are:

- A cheerful and enthusiastic disposition capable of inspiring students to pursue their work with sincerity and dedication;
- A spontaneous but well cultivated interest in observing students with deep insight and sympathy;
- > Capacity of guiding and counselling;
- ➤ Capacity to handle self learning equipment, audio visual instruments and various kinds of new learning materials.
- > Capacity to lead students to the art of self learning;
- ➤ Knowledge of art and science of educating the personality in all its aspects with a special emphasis on integration, harmony and excellence.
- > Psychological tact to deal with collective and individual needs of growth of students;
- ➤ Well versed with instructional methods like problem solving, inquiry training, discovery method and other teaching schemes.

Constructivism: Learning Design

The constructivist learning design emphasizes the following six important elements in the process of teaching and learning:

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- ➤ Developing a situation: The Teacher has to develop the situation for students about the process of their learning.
- > Grouping: The teacher has to select a process for grouping of students and learning materials
- ➤ Bridging: The teacher has to develop a bridge between what the students already know and what the teacher wants them to learn.
- ➤ Questioning: The teacher should anticipate questions to be asked to the students.
- > Exhibiting The teacher should encourage students to record of their thinking by sharing it with others
- ➤ Reflecting: The teacher has to solicit reflection of students on their learning.

Conclusion

Today, constructivist approach is widely discussed and used in many of the schools. NCTE & NCERT in their documents for curriculum revision emphasized the construction of knowledge. But actually schools / educational institutions are pressurized in theoretical results rather than actual learning. Thus, it is a hidden problem, which requires immediate attention from the experts and the government to take step towards discovery learning of constructivism.

References:

Bricker, David C. (1989). Classroom Life as Civic Education: Individual Achievement and Student Cooperation in Schools. Teachers College Press: New York.

Johnson, D.W. and R.T. Johnson. (1989). Cooperation and Competition: Theory and Research. Edina, MN: Interaction Book Company.

Jonaseen, D.H; Peck, K.L; and Wilson, B.G. (1999). Learning with technology: A Constructivist Perspective, New Jersey: Merrill / Prentice Hall.

Mangal S.K & Mangal Uma. (2009). Essentials of Educational Technology. New Delhi: PHI Learning Private Limited.

Mishra R.C. (2005). Teaching of Information Technology. New Delhi: A.P.H. Publishing Corporation

National Curriculum Framework. (2005). Constructivist Approach. New Delhi: National Council of Educational Research and Training.

Sharma, S.R. (2003). Educational Technology. New Delhi: Mohit Publications.

William J. Matthews. (2003). Constructivism in the classroom: Epistemology, History, and Empirical Evidence. *Teacher Education Journal*.

Woolfolk, A.E (1993). Educational Psychology, Boston: Allyn and Bacon.