



CONSTRUCTIVIST APPROACH: A NEW WAY OF LEARNING

Ms. Bhawna Phogat

Assistant Professor, Vasmm, Bahadurgarh.

ABSTRACT

Education is considered as a third eye of man and is a vast and dynamic process which keeps on changing according to situation, timing, place and conditions. It keeps on moving life long and making the journey of education more comprehensive for learners. Over the years there are many approaches to teaching and learning but the current focus is on constructivist approach to teaching and learning which is gaining a lot of attention in education system now a days. Time has come to effectively explore our educational system and examine the core unit of the whole enterprise, the textbook, the classroom, a setting that is often dominated by teacher talk and student listens. So, for fulfilling the aim of child-centered education, constructivism works efficiently for achieving this aim at hand.

"Constructivism is the view that emphasis the active role of the learner in building understanding and making sense of information"

The most amazing contribution of constructivism is a focus on student-centered learning. A teaching and learning environment dominated by the constructivist approach is different from a teaching and learning environment dominated by the traditional approach. Constructivism has emerged as one of the greatest influences on the practice of education in the last twenty-five years. The present paper is a conceptual paper focusing on the need and importance of constructivist approach in teaching and learning, which provides sufficient light on the learning design required for successful implementation of constructivism in teaching-learning process.

KEYWORDS : Constructivism, Teaching, Learning.

INTRODUCTION

A significant obstacle of our education is that teachers simply transfer knowledge to their students rather student should themselves create it in their own minds. We think that students learn something themselves and some facts are made learnt to them. But in psychology and philosophy some thinkers are of view that child construct their own knowledge and skills themselves. An American psychologist thinks that a person develops knowledge through participation in social activities. Piaget, Drever, Posner, Nobak etc. also think the same thing. In psychology this type of thinking is known by the name Constructivist Learning or Constructivism. This constructivist view of learning considers the learner as an active agent in the process of knowledge acquisition. Now, a system where learner receive all information as ready from the teacher is considered inadequate, but instead, it is necessary to pass a system where, the learners are active in their educational environment, configure the old information in mind with the new information, and use this information in order to produce new information. Because of this necessity, many countries change their traditional education system and adopt the constructivist learning approach and they organized their institutions of education accordingly. Due to the situations discussed, in the researches and discussions about the education, the constructivism is, now, more and more, used in remarkable way (Cunningham Duffy, 1996).

Constructivism's success may be due to the problems or frustrations that educators faced with behaviorist educational practices. In 1960s behaviorism came in to educational field through psychology with an air of authority that is startling. The famous framework was prepared that if the teachers provided the correct stimuli, then students would not only learn, their learning could be measured through observations of student behaviors. Behaviorism in schools loaded the shoulders of the teachers with responsibilities directly. They were forced to believe that is the learning is not happening, then I was their duty to restructured the learning environment, determine the most appropriate reinforcement to promote the desired student behavior, or provide a negative reinforcement to extinguish unwanted behaviors. After years of implementation, behaviorism fell short of producing positive effects within the complex context of the classroom and left teachers feeling shortchanged and cheated by a system that placed the guilt for students' failure to learn in their hands. Teachers knew that the programs failed to explain why students weren't learning and why instruction wasn't effective. Following the legacy of behaviorism, constructivism has been welcomed as a theory of knowing that more fully explains the complexity of the teaching-learning process.

Meaning and Definition of Constructivism in Education

Constructivism is an approach to teaching and learning which considers that cognition (learning) is the result of "mental construction" or we can also say that students learn adjust their new knowledge with that of the previous know things. Constructivists believe that learning is affected by the context in which an idea is taught as well as by students' beliefs and attitudes. It is directly related to the education. Constructivism is not specific to pedagogy. Constructivism is basically a theory which is based on observation and scientific study, about how people learn. It says that people construct their own understanding and knowledge of

the world, through experiencing thing and reflecting on those experiences (Bereiter, 1994). The meaning of constructivism varies to one's perspective and position. Within educational contexts there are philosophical meaning of constructivism, as well as personal constructivism as described by Piaget (1967), Social constructivism outlined by Vygotsky (1978), Racial constructivism advocated by Von Glasersfeld (1995), Constructivist epistemologies and educational constructivism (Mathews, 1998). Social Constructivism and educational constructivism have had the greatest impact on instruction and curriculum design because they seem to be the most conducive to integration into current educational approaches.

Defining Constructivism :

- "Constructivism is not a theory about teaching it is a theory about knowledge and learning ... the theory defines knowledge as temporary, development, socially and culturally mediated, and thus, non-objective." (Brooks & Brooks, 1993, p. vii)
- "The central principles of this approach are that learners can only make sense of new situations in terms of their existing understanding. Learning involves an active process in which learners construct meaning by linking new ideas with their existing knowledge." (Naylor & Keogh, 1999, p. 93)
- "Constructivist Learning is a process in which individual construct their own knowledge through meaningful interactions with the world." (Good & Brophy)

One of the common threads of constructivism that run across all these definitions is the idea that development of understanding requires the learner actively engage in meaning-making. In contrast to behaviorism, constructivists argue that "knowledge is not passively received but built up by the cognizing subject" (Von Glasersfeld, 1995). Thus, constructivists shift the focus from knowledge as a product to knowing as a process.

Types of Constructivism

Constructivism builds on knowledge previously gained by the learner and furthers learning by constructing learning through interior mental processes. Constructivism is a very complex approach for different educators and teachers in has different meanings, as a work at hand they modify its meaning in their own terms but to take of formally constructivism can be safely classified in to two types, i.e., Cognitive Constructivism and Social Constructivism.

- **Cognitive Constructivism:** In cognitive constructivism, ideas are constructed in individuals through a personal process. Cognitive constructivism deals with how an individual construct his understanding of the world around him, based on their values, beliefs, prior knowledge, self-control or identity. This form of constructivism is profounded by Piaget.
- **Social Constructivism:** Where ideas are constructed through interaction with the teacher and other students. Public bodies of knowledge are social

constructs . Knowledge takes its form based on things like politics , values, power and status struggles, religion and economics.

Conceptually both the forms of constructivism are different but ultimately form overall constructivism or constructed learning elements for students to easily grasp the meaning for the student.

Characteristics of Constructivism

As the school of psychology , constructivist approach has its features which basically provides light on the framework of this approach , these characteristics of constructivist learning helps the teacher to create the similar kind of learning environment for the learner to flourish his new knowledge in relation to the knowledge base he already has. The following are the characteristics of constructivism:

- Constructivism emphasizes the active role of the learner in the teaching learning situation.
- Learner's autonomy and initiative is accepted and encouraged in this approach.
- Learning involves a process of mental construction.
- Rich and complex environment is required for mental processes to work on.
- Constructivism supports co-operative learning.
- Learning is based on active prior understanding.
- Learner's natural curiosity is nurtured.

Tam (2000) lists the following four basic characteristics of constructivist learning environment, which must be considered when implementing constructivist approach in education:

- 1) Knowledge will be shared between teachers and students.
- 2) Teachers and Students will share authority.
- 3) The teacher's role is one of a facilitator or guide.

- 4) Learning groups will consist of small numbers of heterogeneous students.

Features of Constructivist Education

Children learn best when they construct their own personal understanding based on active interaction with their environment . An individual's own knowledge , attitude and learning experiences shape one's unique perspective about the process of education in turn influences one's decisions as an administrator , a manager or policy maker in adulthood. In constructivist educational environment learners are active and collective work is done. The basic features of constructivist education are as under :

In the constructivist learning environment, debates, and activities for the interests and needs of learners, a certain uncertainty and collaboration to provide creative thinking are organized for the learners (Taylor, Fraser and Fisher, 1997). In such an environment, students are motivated and directed to solving the problem with collaborative work. While doing these works, students' experiences are taken into account (Rice and Wilson, 1999). In the constructivist learning environment, the technology is used at the highest level. In the technology-assisted classrooms, project-based training, methods and techniques based on the collaborative work are used in order to make learners active (Means and Olson, 1995). In terms of these aspects, the constructivist approach proposes radical changes in teaching and learning environment unlike the traditional educational approach. In an environment, in a relaxed manner without being under any pressure, using students' past experiences and ideas acquired by a variety of sources, working on real-life problems by doing researches and interrogations, continuing teaching outside of the classroom, and where students are responsible for their own learning, it is seen that these learning approaches have a positive influence on students' academic achievement (Tenenbaum, Naidu, Jegede and Austin, 2001, Maypole and Davies, 2001). All of these in mind, in an educational environment dominated by constructivist learning, learning will be realized in a high level of efficiency and durability (Taşpınar, 2012). In the constructivist approach, in place of product-oriented learning, focusing on the process of learning by exhibition, project work, portfolio, scoring key diagnostic tree, checklists, performance evaluation, self-assessment, alternative assessment tools such as peer reviews should be used. Here, which is evaluated is not the product of learning but the learning process and that students continue learning throughout the assessment and evaluation studies. Considering all of this information, it can be concluded that the constructivist learning approach which uses a different view in learning activities, have an important contribution on the academic achievement of students and on the durability of the information learned.

Aims of Education	Constructivist Curriculum	Methods of Teaching	Teacher	Student / Learner	Discipline	Evaluation & Assessment
Development of reasoning, critical thinking & problem-solving ability Development of mental flexibility Self-reflection Retrieval, understanding and use of information.	Student proceed from part to whole It emphasizes discovery learning. Students interest and questions are valued rather than fixed curriculum. Overall curriculum is flexible and child-centered.	Methods which seeks student participation are adopted like: Critical exploration, Inquiry based learning, Problem-solving, Collaborative learning, Co-operative learning, Discussion Method, Project method.	The teacher acts like a facilitator, guide, cognitive support, motivator, encouraging agent and also set limits and boundaries.	The student remains in limelight in this approach. Student remains curious, takes initiative, organize his work, open-minded, self-motivated, remain self-control, acts as critical and analyser, be realistic, flexible and socially active.	In this kind of educational environment the students remain in self-discipline and self-motivated.	In constructivist learning approach evaluation is done through observation. Assessment of the process adopted by the students rather than product of their process.

Principles of Constructivist Classroom

- **Principle of Activity:** Students themselves are inquirer, explorer so they remain active in the teaching-learning process. They set their goals and even means of their assessment.
- **Principle of Construction:** In constructivist approach learning is a constructive process. Students construct their new knowledge on their experiences and knowledge.
- **Principle of Collaboration:** They learn through collaborative efforts and also in co-operation with each other. It helps them to explore new knowledge in an easy way.
- **Principle of Conversation:** Through conversation among students and teacher or between student-student they construct their new knowledge.
- **Principle of Complexity:** In Constructivist classroom such a situation, environment, skills, content and tasks are employed which are relevant, authentic realistic and represents the natural complexities of the real world environment.
- **Principle of Reflection:** The process of learning through self reflection enables them to become master of their own learning and helps in self analysis, self regulation, self awareness.

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Also there are many psychologists who have suggested some more principles of constructivist learning as Driscoll (2000) has given following principles for designing learning in constructivism:

- 1) Embed learning in complex, realistic and relevant environment.
- 2) Provide a social negotiation as an integral part of learning.
- 3) Support multiple perspectives and the use of multiple modes of representation.
- 4) Encourage ownership in learning.
- 5) Nurture self-awareness of the knowledge construction process.

Relevance and Implications of Constructivist Approach in Teaching-Learning Process

Constructivism allows teachers to take instructional approaches that are congruent with the current research on learning. Taking learning as an active process, keeping students previous knowledge into consideration, building on preconceptions and eliciting cognitive conflict, teachers can design instruction that goes

beyond rote learning to meaningful learning that is more likely to lead to deeper, longer lasting understandings. The influence of constructivism in education today can be seen in a variety of curricula as well as instructional practices. Relevance on need of constructivism in education can be made clear through following points:

- This is active form of learning as students learn more, enjoy more and are actively involved in the process.
- This helps in transfer of learning, the students organize and create new knowledge based on prior one.
- Through constructivist approach social skills of students are enhanced, as the work is also done in groups and in co-operative manner.
- Development of communication skills in child through active participation in the learning activities.
- Students' natural curiosity is also nurtured through this approach, they learn to ask questions and solve their curiosity.
- Many of the opportunities are provided to the students for ownership, responsibilities lie in hands of the learners.
- In this approach to teaching and learning, teacher feels less burdened as students remain more active.
- Development of higher order intellectual abilities which helps the learner to develop the skill of evaluation, abstract thinking, reasoning etc.
- It encourages and accepts student autonomy and initiative.
- Encouragement to students to construct relations and create metaphors.

Considering all the above significance of constructivism we can say that it is a teaching-learning approach or philosophy that is focused on laying utmost responsibilities on students' shoulders and encourage them to construct or discover his own knowledge from things available in the existing environment.

CONCLUSION

Constructivism in education emerged after the behaviorist movement loses its importance. The constructivist focuses on individual and his capabilities in constructing new knowledge from the present environment. In Constructivist approach, the work of planning and development of the learning experiences is mutually shared and negotiated. The teacher and students together make decisions about content, activities and approaches associated with teaching-learning process to be carried out in the classroom or outside the classroom in other learning environments (Woolfolk, 2004). Finally, Constructivism's greatest contribution to education may be through the shift in emphasis from knowledge as a product to knowing as a process. This legacy of constructivism will likely prove to be a lasting and meaningful shift in the structure of schooling.

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