



Constructivist Approach to Learning: A Paradigm Shift in Teaching Learning Process

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Abstract: The present paper focuses on the need of a paradigm shift in teaching learning process in which students may be given opportunity to construct knowledge by their own experiences. This paradigm shift referred to as constructivist paradigm is the need of the hour in which students may be given opportunities to reflect, develop critical thinking and problem solving abilities. The paper also focuses on the principles and strategies needed to be adopted for successful implementation of constructivism in teaching learning process.

Key words: constructivism, Teaching-Learning process, paradigm shift

Introduction

Constructivism is based on the theory that learners construct their own understanding and knowledge through experience and by reflecting on those experiences. It challenges the learner to construct their own knowledge.

In constructivist classroom, learners use prior knowledge and connect it to new information. Learners are motivated to ask questions, explore and assess what they know. Learners are encouraged to use active techniques (Experiments, problem solving) to create new knowledge. Learners are active, work collaboratively, discuss learning experiences and reflect upon understanding.

Theorists supporting Constructivism

Constructivism has been supported by Jean Piaget(1896-1980), John Dewey(1859-1952), Lev Vygotsky(1896-1934), Jerome Bruner(1915-2016), David Ausubel(1918-2008) . Modern Educators supporting constructivism are John D Bransford, Ernst Von Glasersfeld, Jacqueline Grennon Brooks and Martin .G. Brooks .

Need of Constructivism in Teaching Learning

Teacher centred methods does not develop in students the abilities of problem solving, critical thinking, decision making and creativity. In order to develop in the students these skills and enable them to face the day to day challenges in life the constructivist approach need to be adopted in the Teaching Learning process.

5 E Model of Constructivism

The Biological Science Curriculum Study (BSCS), a team led by Principal Investigator Roger Bybee, developed the 5E Instructional model for constructivism

The 5E's represent five stages of Teaching Learning. The 5 E' s are **Engage, Explore, Explain, Elaborate and Evaluate**

Engage- The purpose of this stage is to assess the learner's prior knowledge, develop in the learner interest to learn, create curiosity in them and get the students engaged in the learning process. In this stage learners make connection between the past and present learning experience.

Explore- In this stage students are provided opportunity to explore through all senses. They get opportunity to get involved with phenomenon and materials and build their own understanding. Students work together in teams with teacher as facilitator.

Explain – In this stage students are provided opportunity to communicate what they have learned. Students are asked to explain their experiences. Teacher interacts with the students to discover their ideas.

Elaborate- Students apply knowledge to new situations. Through new experiences the learners develop broader understanding of concepts.

Evaluate- This stage is both for the students and teachers to determine how much learning and understanding has taken place. It can be done through self- assessment, performance assessment, teacher observation, portfolio and rubrics.

Guiding Principles of Constructivism

1.Principle of Readiness

Students learn best if they are willing to learn something. They should be well motivated and mentally prepared to gain new knowledge. Students should be provided suitable learning experiences under the relevant context.

2.Principle of Facilitation

Teacher should play role of facilitator. The teacher should provide the necessary materials for learning and encourage the students to solve the problems themselves by having the first hand experiences.

3.Principle of Collaborative Learning

Learning should take place in social setting. It becomes more interesting when it is associated with other human beings, peers and teachers.

4.Principle of Experiential Learning

Constructivism lays emphasis on learning through experiences. When students learn by doing their knowledge becomes permanent.

5.Principle of putting Learners in challenging situations

The classroom climate should be challenging but not threatening to students.

6.Principle of Instructional Scaffolding

The teacher should try to identify students previous knowledge and use it as a base for providing learning experiences for acquiring new knowledge.

7.Principle of Reflective Activity

In Constructivism students learn through experiences and reflect on those experiences.

Mental thinking is applied over to hands on experience.

8.Principle of Centrality of the learners Activities

Students are provided opportunities to learn by themselves. The students learn by doing and remain active throughout the learning process.

Role of Teacher in a Constructivist Classroom

1. Learners' prior knowledge is to be kept in mind and new experiences and situations to construct new knowledge to be given based on it.
2. Learning to be provided in real world environment.
3. Learner should be properly motivated and mentally prepared to construct new knowledge to be given based on it.
4. Learning should involve social negotiation and mediation.
5. Opportunities to learn by doing is to be given.
6. Collaborative Learning environment is to be provided.
7. Teacher should play the role of facilitator.
8. Students to be provided opportunities to reflect on learning experience.
9. Encourage students enquiry by asking thoughtful open ended questions
10. Formative and self-assessment techniques to be taken into account.

Conclusion

There is a need for the pedagogical shift in the teaching learning process wherein the learner are provided opportunities to construct knowledge themselves, wherein teacher would play the role of a facilitator. This would lead to effective learning and develop process skills in the learner. The teachers also need to be trained to adopt the constructive approach in teaching learning process.

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