



TEACHING STRATEGIES –A CONSTRUCTIVIST APPROACH

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Abstract

Constructivist approach is the most important and remarkable approach in the current scenario of teaching-learning. Constructivist believes that 'knowledge' is the result of individual constructions of reality. Knowledge is the result of the accurate internalization and reconstruction of external reality. (Cognitive) knowledge is constructed from one's experience but is not an accurate representation of external reality (radical). Knowledge is the outcome of social interaction (social). The instructional issue in constructivist learning is the role of social interaction. Thus, the present paper focuses on how to facilitate cognitive processes in learners through social interaction. Instructional methods such as team teaching, brainstorming, experiential learning, co-operative learning, cognitive learning, cognitive apprenticeship problem –based learning and discovery learning strategies require that a student learn as a part of a group. The paper also elaborate upon the characteristics of constructivist classroom and the process of constructivist learning.



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Constructivism is associated with cognitive psychology .Constructivist learning is knowledge construction based on the assumption that learners actively create and restructure knowledge in highly individual ways, through experiences.

Fosnot(1996)defines constructivism by reference to four principles: learning is an important way, depends on what we already know; new ideas occur we adapt and change our old ideas; learning involves inventing ideas rather mechanically accumulating facts, meaningful learning occurs through rethinking old ideas and coming to new conclusions about new ideas which conflict with our old ideas.

Different views of constructivism

There are three different views on constructivism: cognitive constructivism, social constructivism and radical constructivism. Cognitive constructivism assumes that knowledge is the result of the accurate internalization and reconstruction of external reality by the learner. Knowledge from the social constructivist position is the result of social interaction and language usage, and thus is a shared, rather than an individual experience. Radical

constructivism emphasizes that knowledge is constructed from individual experience, but is not in any discernible way, an accurate representation of external reality.

CHARACTERISTICS :

Most constructivists agree on four characteristics that permeate all learning (Bruning et al., 1995, Good&Brophy,1994;McCarthy,1994)

- *Learners construct their own understanding.
- *New Learning depends on current understanding
- *Learning is facilitated by social interaction
- *Meaningful learning occurs within authentic learning tasks.

Constructivist Inspired Learning Model

The constructivist inspired learning model provides students with opportunities to construct their own understanding.

In this model, the process is explained in six stages.

Introduction, Exploration, Experiential mode, Abstract conceptualization, Reflection, Evaluation.

1.Introduction:Prior knowledge can be activated in many ways .Recall previous knowledge , introduce new knowledge by asking question, students become active learners, motivated, curiously engaged in dialogue discussion.

2. Exploration: Students engage in learning experimentation, employ problem solving strategies, practice enquiry approach, discuss with others. Here learning environment includes materials, peers, teachers and computer helps in collaborative, co-operative learning.

3. Experiential mode: Interact with children to discover ideas. Learners construct their own understanding learning is facilitated by social interaction .Meaningful learning occurs within authentic learning tasks. The teacher acts as a facilitator, providing materials and guiding students.

4. Abstract Conceptualization and Understanding: Learning according to constructivism is a question of attaching a new meaning to past experiences. Construct a new explanation, experiences and make decisions.

5. Reflection: Teachers encourage students to reflect on their current ideas and findings in the light of earlier hypotheses students are encouraged to think about their own learning.

6. Application and Evaluation: Evaluation is a continuous process of the instructional design. This makes the constructivist philosophy a kind of instructional design. This makes the constructivist philosophy a kind of cyclic process. Evaluation is an ongoing, diagnostic

process that allows the teacher to determine if the learner has attained understanding of concepts and knowledge. The learning process is open-ended and open to change.

INSTRUCTIONAL STRATEGIES

An important instructional issue in a constructivist learning is the role of social interaction. Many of the popular instructional methods such as cooperative learning, team teaching, problem solving require that a student learns as a part of group. So primary issue is that how to facilitate cognitive processes in learners. Some of popular methods that help cognitive processing are below:

1. TEAM TEACHING:

Team Teaching is an instructional organizational or reorganization that enables pooling of information, material and human resources in schools, a harmonious synthesis of a team of talents and methods in teaching a group of learners with a view to maximize effectiveness is known as team teaching.

2. BRAINSTORMING:

Brainstorming serves the purpose of collective or individual generation of ideas as possible solutions to any particular problem. Organizing brainstorming involves selecting the topic and setting it in the form of a question ,forming groups and assigning aspects to be attempted , giving free expression to all ideas, beginning the discussion with a positive statement on the topic and giving time to individual thinking, stimulating interest and providing time for guided discussion, settling the group for synthesizing ,reorganizing and recording of accepted ideas from sequence of key tasks to be pursued. The essence of brainstorming technique is the solution generation rather than the solution evaluation. It suggests that teachers provide experiences, guide discussions and assume a supportive role in the process of students' attempts at developing understanding.

3. EXPERIENTIAL LEARNING:

Experiential learning means the learning that occurs when changes in judgements , feelings, knowledge or skills results for a particular person from living through an event(s).Kolba and Fry(1975) describes four stages of cycle stage(a)is a concrete experience which is followed by(b)observation and reflection of that experience. These reflections are connected into(c) abstract concepts and generalizations which are (d)then tested in new situations. In turn these lead to new experiences.

4. CO-OPERATIVE LEARNING:

The possible strategies for cooperative learning include learning jigsaw(a cooperative structure in which each member of a group is responsible for teaching other members one

section of the material)reciprocal questioning (an approach where groups of two or three students ask and answer each other questions after a lesson or presentation)scripted cooperation(a learning strategy in which two students take turns summarizing material and critiquing the summaries);STAD(students work in their teams to study and prepare for twice-weekly quizzes. The teacher calculates an Individual Learning Expectation (ILE) score which is student's average level of performance.)This system is called Student-Teams – Achievement Divisions or STAD (Slavin,1995)

5. COGNITIVE APPRENTICESHIP:

C.A is a relationship in which a less experienced learner acquires knowledge and skills under the guidance of an expert. There are many cognitive apprenticeship models, but most share six features:

- *Students observe an expert (usually the teacher) model the performance.
- *Students get external support through coaching or tutoring (including hints,feedback,models and reminders)
- *Students receive conceptual scaffolding, which is then gradually faded as the student becomes more competent and proficient
- *Students continually articulate their knowledge –putting into words their understanding of the processes and content being learned.
- *Students reflect on their progress, comparing their problem solving to an expert's performance and to their own earlier performances.

Students are required to explore new ways to apply what they are learning-ways that they have not practiced at the master's side.

'Scaffolding' which occurs when a less skilled learner works at the side of an expert is an essential component of cognitive apprenticeship.

6. PROBLEM-BASED LEARNING:

Problem based learning has five phases:

1. Orient students to the problem
2. Organize students for study.
3. Assist independent and group investigation.
4. Develop and present artifacts and exhibits.
5. Analyze and evaluate the problem solving process.

Solving process with effort and practice, teachers can learn to guide student learning and help to develop the thinking and the deep understanding of content

7. DISCOVERY LEARNING:

The term discovery refers to a process of self-learning whereby learners generate concepts and ideas. However, 'inquiry' refers to stages 'beyond' discovery' where learners become systematically acquainted with scientific and logical rules used to verify those ideas. Inquiry can also be thought of primarily as an intellectual construct (Bruner's analytic thinking or Dewey's reflective thinking) which is enabling students to move from hypothesis, to data collection, verification, generalization, and so on. In the knowledge construction process, learners use discovery processes in the initial perplexing phases of thinking, whereas inquiry processes in the more advanced formal verification phases.

Thus, constructing new knowledge becomes a continuous interplay of intuitive or analytic processes.

CONCLUSION:

Constructivist views of learning focus on how individuals construct their own cognitive structures as they interpret their experiences in particular learning situations. Constructivist approaches emphasize making students aware of their own role in constructing knowledge (Cunningham,1992).The assumptions we make, our beliefs, and our experiences shape what each of us comes to "know" about the world. Different assumptions and different experiences lead to different knowledge.

REFERENCES

- Fosnot, Twomey (1996), 'Constructivism: A Psychological Theory of Learning, in C.T. Fosnot(ed.) Constructivism, Theory, Perspectives and Practice, New York, Teachers College Press, Columbia University.*
- Kolb,D.A (1984),Experiential Learning Experience as the source of Learning and Development, Prentice Hall, New Jersey.*
- Chickering, A.W.(1977)Experience and Learning: An introduction to Experiential Learning .Change Magazine Press, New Rochelle New York.*
- Kold,U &Fry ,IL(1975) Towards an Applied Theory of Experiential Learning. In Cooper, CL.(ed.) Theories of Group Processes. New York: Wiley.*
- Lave,J&Wenger,F. (1991) Situated Learning: Legitimate Peripheral Participation, Cambridge, M.A :Cambridge University Press.*
- Shalpin, J.T and Olds, H.R. Jr (Eds)(1964): Team Teaching ,New York Harper and Row.*
- Slavin.R.E.(1995):Cooperative Learning ,(2nd ed),Boston:Allyn and Bacon*
- Warwick, D.(1971):sTeam Teaching, London: University of London Press.*