

# Constructivism in Teacher Education: An Overview

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## Abstract:

Teacher education is an important vehicle to improve the quality of school education. The quality of school educational process in India largely depends upon the quality of teacher. Innovations play an important role in improving the quality of teachers and the training imparted to them for all levels of teaching. Innovations means the ability to think beyond the boundaries and create something which is different from that which already exists. Traditional teaching approach (lecture method) commonly adopted by teachers in schools involves coverage of the context and rote communication on the part of the students and does not involve the students in creative thinking. The modern trends in education have changed the present scenario and adopted the constructivist approach. Constructivism promotes social and communication skills by creating a classroom environment that emphasizes collaboration and exchange of ideas. Students in constructivist classroom learn to question things and to apply their natural curiosity to the world. Students exchange ideas and learn to negotiate with others and to evaluate their contributions in a socially acceptable manner. This paper will focus on providing an alternative pedagogy based on the ideas of constructivist approach of teacher education. Constructivism represents one of the big ideas in education. It's implications for how teachers teach and learn to teach are enormous. If our efforts in reforming education for all students are to succeed, then we must focus on students. To date, a focus on student-centered learning may well be the most important contribution of constructivism.

**Keywords:** Innovation, Constructivism, Teacher Education, Constructivist and traditional approach in Teacher Education.

## 1. Introduction:

The progress of a nation to same extent depends upon the quality of its teacher. It means excellent and efficient teachers can change the fate of the nation. Throughout the history, teachers have played a vital role and they continues to do so. A UNESCO publication, the Changing Role of the Teachers, states: "There was a time when the teacher's role was to pass down to the younger generation the knowledge, experience and mythology of a slowly evolving society". The pace of change in contemporary society has made this role redundant. Now-a-days, advanced technology has revolutionized human society. In facing up to challenges and impacts of globalization, high technology, economic transformation and so on so forth in the 21<sup>st</sup> century, teacher education institution should have made numerous educational reforms. In these reforms, teachers have to face challenges. Since challenges in educational system have no permanent answer, so, teachers themselves will have to prepare themselves to take up new roles and perform teaching effectively to meet the challenges. There are many issues that need urgent attention for improving the quality of teacher education programme. Innovation is the key to improvement. One has to be innovative with teaching, integrated teaching, teacher curriculum and teacher education for the development of the nation.

## 2. Statement of the problem:

Teacher education institutions should have made numerous education reforms due to impact of globalization, economic transformation, high technology etc. In these reforms teachers education has to face challenged of a divide between theory and practical. So, teachers, themselves will have to prepare to take up new roles and perform teaching effectively to meet the challenges. Hence the purpose of this study is to compare instructional module based on constructivist approach with the traditional method in teacher education.

### 3. Objectives of the study:

Following are the objectives of the study.

- 3.1. To develop an understanding of innovative practice.
- 3.2. To know the meaning of constructivism.
- 3.4. To develop an understanding of instructional module based on constructivist approach.
- 3.5. To compare instructional module based on constructivist approach with the traditional method in Teacher Education.
- 4.5. To determine the effectiveness of constructivist approach in students learning.

### 4. Methodology:

The study is mainly analytical in nature. The secondary information have been collected from various publication, journals, books etc. Internet source and websites are also consulted for purpose.

### 5. Meaning and concept of Innovative Practice:

Etymologically, the word “innovation” is derived from the Latin word “innovare” which means to change something into something new. It is a promotion of new ideas and practices in education and training. There may be wide variation using innovative practices in teaching and learning. For example, the use of coloured chalk, basic audio-visual materials, electronic technology, use of sophisticated technology and methods etc. are some of innovative practices use in teaching and learning. In our country, electronic technology has dramatically penetrated into every area of our society. Now an important question arises: How can we educated our new generation? To answer this question, a supportive environment, one in which they can create the ideas; both individually and collaboratively must be provided.

Research and innovations play an important role in improving the quality of teachers and the education imparted to them for all levels of teaching. They demand to introduce new ideas and practices in classroom transaction and other curricular and co-curricular activities. No teacher education programme can prepare teachers for all situation that they will encounter. Teachers themselves will have to make the final choices from among many alternatives. The purpose of teacher educationist to prepare teachers who have professional competencies to lead the nation forward through their manifold roles. For having innovative teacher’s education, we have to reconstruct our educational system. Reconstruction of educational system started in India from the beginning of independence. The University Education Commission (1952-53), International Secondary Education Project Team (1954), Education Commission (1964-66), The Committee on Plan Projects (1963), The Study Group of the Secondary Teachers in India (1964), Indian Association Teacher Educators (1973), National Policy on Education (1986) and National Council for Teacher Education (1998) ----have all recommended innovations in India in order to meet the present day requirements and to strengthen all aspects of teacher education system.

### 6. Constructivism in Teacher Education:

Recently, Constructivism has received considerable attention in education scholarship, practioner’s preparation, and policy formation. Constructivism is an epistemology, a learning or meaning- making theory that offers an explanation of the nature of knowledge and how human beings learn. It maintains that individuals create or construct their own new understanding or knowledge through the interaction of what they already know and believe and the ideas, events and activities with which they come in contact. Knowledge is acquired through involvement with content instead of imitation or repetition. Constructivism is a theory of learning, not a theory of teaching. Learning activities in Constructivist settings are characterized by active engagement, inquiry, problem-solving, and collaboration with

other. Rather than a dispenser of knowledge, the teacher is a guide, facilitator, and co-explorer who encourages learners to question, challenge and formulate their own ideas, opinions and conclusions.

### **6.1. Meaning and concept of constructivism:**

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.

Constructivism is a reaction to teaching approaches such as behaviourism and programmed instruction. Constructivist paradigm is based on the contributions of Piaget, Vygotsky, and many other. It is believed that the key elements of constructivist theory is that learners actively construct their own knowledge and they, through social negotiation, continuously test their hypotheses and create new knowledge, correct previous knowledge, or confirm present knowledge. Constructivist argued that learner is not a blank slate but brings past experiences and cultural factors for constructing new knowledge in a given situation. So each learner has a different interpretation and construction of knowledge process based on mental representation.

The constructivist teacher helps the students through problem-solving and enquiry-based learning activities with which students formulated and test their ideas, draw conclusion and inferences, and convey their knowledge in a collaborative learning environment. Constructivism transforms the students from a passive recipient of information to an active participant in the learning process. Guided by the teacher, students construct or create their knowledge actively, rather than just mechanically ingesting knowledge from the textbook or the teacher.

### **6.2. Three main propositions of constructivism:**

Constructivism is a philosophical view point about the nature of knowledge. The three main propositions of this philosophy are as follows.

**6.2.1.** Understanding is in our interactions with the environment. This is the core concept of Constructivism. What one understands is a function of the content, the context, the activity of the learner, and the goals of the learner. Cognition is not just within the individual but rather it is a part of the entire context, i.e., Cognition is distributed.

**6.2.2.** Cognitive conflict is the stimulus for learning and determines the organization and nature of what is learned. Learner’s puzzlement is the stimulus and organizer for learning.

**6.2.3** Knowledge evolves through social negotiation and through the evolution of the viability of individual understanding.

### **6.3. Two broad interpretations of Constructivism:**

The most important aspect on which constructivism focuses is knowledge construction. Knowledge construction is viewed differently by different philosophers and psychologists. In general, two broad interpretations can be found among contemporary educators, namely, psychological constructivism and social constructivism.

**6.3.1.** Psychological constructivism is most notably articulated by Jean Piaget. Piaget’s view is constructivist, because he firmly by believed that knowledge acquisition is a process of continuous self-construction. Children acquire knowledge through their actions and passes through stages of assimilation, accommodation and equilibrium in the process of knowledge construction. Here learning is primarily an individualistic enterprise. This is a child-centered approach that seeks to identify, through scientific study, the natural path of cognitive development. This approach assumes that students come to classrooms with ideas, beliefs, and opinions that need to be altered or modified by a teacher who facilitates this alteration by devising tasks and questions that create dilemmas for students. Knowledge construction occurs as a result of working through these dilemmas.

**6.3.2.** Social constructivism is associated with Vygotsky. The father of social constructivism, Vygotsky views the origin of knowledge construction as being the social interaction of people, interactions that involve sharing, comparing and debating among learners and mentors. Individuals construed knowledge in transaction with the environment, and in the process both the individual and the environment are changed. The subject of study is the dialectical relationship between the individual and the social and cultural milieu. Schools are the socio-cultural settings where teaching and learning take place and where “cultural tools” such as reading, writing, mathematics, and certain models of discourse are utilized. The approach assumes that theory and practice do not develop in a vacuum; they are shaped by dominant cultural assumption. Vygotsky asserts that knowledge cannot be isolated from social and cultural context. He argues that all higher mental functions are social in origin and are embedded in the context of sociocultural setting. In social constructivist model, the knowledge is constructed through interaction between teacher and student. The role of teacher in social constructivist approach shifts from the sole dispensers of knowledge to motivator, guide and resource person.

## 7. Traditional classroom and constructivist classroom:

Traditional teaching approach (lecture method) is common in education. It involves coverage of the context and the rote memorization on the part of the students. It did not involve students in creative thinking and participation in the creative part of activities. The teacher seeks to transfer thoughts and meanings to the passive students leaving little room for student-initiated questions, independent thought or interaction between students. Traditional classes are usually dominated by direct and unilateral instruction. This teacher-centered method of teaching also assumes that all students have the same level of background knowledge in the subject matter and are able to absorb the material at the same pace.

The up-and-coming trends changed the present scenario and adopted the constructivist approach which has placed its focus on initiative activities and knowledge acquisition. This student-centered learning poses a question to the students, who work together in small groups to discover one or more solutions. Teachers assist the students in developing new insights and connecting them with previous knowledge. Students are able to develop their own understanding of the subject matter based on previous knowledge, and can correct any misconceptions they have.

## 8. Implications:

Constructivism has roots in philosophy, psychology, sociology, and education. Constructivism has important implications for teaching.

**8.1.** Teaching cannot be viewed as the transmission of knowledge from enlightened to unenlightened; constructivist teachers do not take the role of the “sage on the stage” Rather, teachers act as “guides on the side” who provide students with opportunities to test adequacy of their current understandings.

**8.2.** If learning is based on prior knowledge, then teachers must note that knowledge and provide learning environments that exploit inconsistencies between learner’s current understanding and the new experience before them. This challenges teachers, for they cannot assume that all children understand something in the same way. Further, children may need different experiences to advance to different levels of understanding.

**8.3.** If student must apply their current understanding in new situations in order to build new knowledge, then teachers must engage students in learning, bringing students current understandings to the forefront. Teachers can ensure that learning experiences incorporate problems that are important to students, not those that are primarily important to teachers and the educational system. Teachers can also encourage group interaction, where the interplay among participants helps individual students become explicit about their own understanding by comparing it to that of their peers.

**8.4.** Constructivism represents one of the big ideas in education. Its implications for how teachers teach and learn to teach are enormous. If our efforts in reforming education for all students are to succeed, then we must focus on students. To date, a focus on students. To date, a focus on student-centred learning may well be the most important contribution of constructivism.

## 9. Conclusion:

In India, the pupil who are pursuing teacher education are required to place community and future citizens at a higher place by possessing new skills, attitudes and knowledge in the field of education. All these can be possible through practice of innovative teaching practices in Teacher Education. Innovation is the path to progress for any nation and the future of the nation is in its classroom. In classroom instruction, there a need of integration of formal, theoretical, practical and self-regulative knowledge. However in traditional type of curriculum these different types of knowledge have been treated separately. One of the most important challenges to pedagogy is developing curricula and teaching methods so that true integration of formal, theoretical knowledge and self-regulative knowledge may be achieved. Constructivism emphasizes on this aspect of assessment. Constructivist learning approach is qualitative in nature. Hence we need to respect such an innovation in Teacher Education.

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