

Innovative Practices in Teacher Education

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Introduction:

In the knowledge driven society of today the key strategic resource necessary for prosperity has become knowledge itself – educated people, their ideas and innovation and their entrepreneurial spirit. (Bloch, 1988) The word innovation implies introduction of novelties or alteration of established methods. In other words, 'Innovation refers to the successful exploitation of new ideas'. It involves thinking out of the box or thinking differently. In words of Shiv Kheda, “winners are not different but they do things differently”. Sometimes we gain more just by thinking in a different manner.

Basically teaching must include two major components sending and receiving information. Ultimately, a teacher tries his best to impart knowledge as the way he understood it. Any communication method that serves this purpose without destroying the objective could be considered as innovative method of teaching.

Innovative teaching practices may be defined as instructional or assessment methods that are different from traditional methods, such as lectures and exams. Innovative teaching practices are often tried in an effort to make one's teaching more effective or to tackle an instructional problem or challenge – both of these reasons connect to an overall desire to improve students' learning. They can be viewed as a means to the desired outcome enabling more effective teaching and deeper student learning.

Need for Innovative Practices:

Teachers are the torch bearers in creating social cohesion, national integration and a learning society. They not only disseminate knowledge but also create and generate new knowledge. They are responsible for acculturating role of education. No nation can even marginally slacken its efforts in giving necessary professional inputs to its teachers and along with that due status to their stature and profession. Evidently the quality of education is a direct consequence and outcome of the quality of teachers and teacher education system.

India has a large system of education. There are nearly 5.98 lakh Primary Schools, 1.76 lakh Elementary Schools and 98 thousand High / Higher Secondary Schools in the country, about 1300 teacher education institutions for elementary teachers and nearly 700 colleges of education / university departments preparing

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teachers for secondary and higher secondary schools. Out of about 4.52 million teachers in the country nearly 3 million are teaching at the primary/ elementary level. A sizeable number of them are untrained or under-trained. In certain regions, like the North-East, there are even under-qualified teachers. As far as in-service education is concerned the situation is not very encouraging. It is estimated that on an average 40% of the teachers are provided in-service teacher education once over a period of five years. Regarding non-formal education, though a number of models are in vogue in various states in the country, much more needs to be done to prepare teachers and other functionaries for the system.

The present educational scenario in India reveals that there has been an increase in sub-standard institutions of teacher education and there are numerous reports of gross malpractices. Teacher education by and large, is conventional in its nature and purpose. The integration of theory and practice and consequent curricular response to the requirements of the school system still remains inadequate. Teachers are prepared in competencies and skills which do not necessarily equip them for becoming professionally effective. Their familiarity with latest educational developments remains insufficient. Organized and stimulatory learning experiences whenever available, rarely contribute to enhancing teachers' capacities for self-directed lifelong learning. The system still prepares teachers who do not necessarily become professionally competent and committed at the completion of initial teacher preparation programs. A large number of teacher training institutions do not practice what they preach. Several of the skills acquired and methodologies learnt are seldom practiced in actual school system. This highlights the need to bring realism and dynamism in the curriculum. At the same time new thrusts have been posed due to rapid changes in the educational, political, social and economic contexts at the national and international levels during the last decade. This calls for the need of innovative practices in Teacher education.

Policy Reforms and Recommendations:

Various committees on education have felt the need to revamp the educational transactions in our country to meet the growing needs of the changing society.

The Education Commission (1964-66) stressed that 'in a world based on science and technology it is education that determines the level of prosperity, welfare and security of the people' and that 'a sound programme of professional education of teachers is essential for the qualitative improvement of education.'

In the opinion of UNESCO's Principal Regional Office for Asia and the Pacific (1990) opines that teacher education systems must be structured and organized in

a way that enables them to respond dynamically to the emergence of new educational problems and challenges, if they are to help education fulfill its role in national development.

The NCTE (National Council of Teacher Education) established as statutory body in 1993, is very particular of the introduction of ICT in the syllabus of teacher education programmes. According to NCTE teacher training institutes have to shift their focus from with the present system that of future education.

The Curricular Framework of Quality teacher education (NCTE, 1998) aims to prepare futuristic, dynamic and forward-looking teachers with high level of competencies, commitment and willingness to perform. The main objective of this framework is to generate fresh thinking and action. It highlights the need for value inculcation within the constitutional ideology and Indian ethos.

The National Curriculum Framework (2005) also emphasized on innovation and good practices in teacher education. The National Policy on Education (1986, 92) also recognized that teachers should have the freedom to innovate, to devise and appreciate methods of communication and activities relevant to the needs, capabilities and concerns of the community.

Relevance of Innovative practices:

It is well known that pupil learn more when they are involved actively in learning than when they are passive recipients of instruction (Jukes, 2003). Active learning strategies can be designed to target visual learners through models and demonstrations, auditory learners through discussion, debates and games and kinesthetic and tactile learners through models and role playing (Rao, 2001). It has been observed that, in every group of 30 students, an average of 22 are able to learn effectively as long as the teacher provides a blend of visual, auditory, and kinesthetic activities. The remaining eight students differ in their preferences for modalities of learning and fail to understand the subject matter unless it is presented in their mode of preference. To meet these needs, teaching should be multi-sensory and filled with variety (Grinder, 1991).

It is quite natural that the innovative teaching practices would certainly have greater impact on the learning habits of pupil and consequently its influence on their performance in examinations, life skills and other related aspects. In other words, the innovative practices of teaching help the students to achieve either desired level or enhance the learning capacities so as to excel in their examinations as well as equipping with better potential to seek either jobs or other professional performance in their life. However, here is very little documentation of the effectiveness of various active learning strategies, and often faculty are

reluctant to incorporate such new strategies into the teaching curriculum (Rao, 2001).

Prateek Shah (2004), based on his work on innovative teaching practices in higher education in India, opined that the innovative teaching practices enable the learners to understand the difficult task much faster than the usual traditional methods.

Usha Sharma (2011) in a study conducted on Indian needs innovation concluded that innovations have brought significant improvement in the field of secondary teacher education stage and these should be conducted on continuous basis to meet the future challenges.

The use of innovative methods in educational institutions has a lot of advantages such as:

- It improves education and aids in better understanding.
- It initiates divergent thinking and ignites creativity of the learners.
- It also empowers people to make right choices and voice their opinion.
- It strengthens governance.
- Overall it has the capacity to galvanize the effort to achieve the human development goal for the country.

Innovative Practices in Teacher Education:

A number of innovative practices can be introduced to enhance the quality of teaching-learning. The paper discusses some selected practices that can be effectively implemented in teacher education institutions.

Cooperative Learning :

Cooperative learning involves small heterogeneous student groups working together to solve a problem or complete a task. All students in the group must actively participate with each student maintaining some independence. The success of the group depends on the input of each individual. This teaching method promotes active participation, individual accountability, students' ability to work cooperatively and improvement of social skills. Some of the cooperative learning techniques that can be easily implemented are:

- Think-Pair-Share
- Think-Pair-Write
- Jigsaw

- Jigsaw II
- Reverse Jigsaw and
- Reciprocal teaching
- STAD- Student- Teams- Achievement Divisions

Cooperative Learning Strategy



Collaborative Learning :

Collaborative learning is a situation in which two or more people learn or attempt to learn something together. More specifically, collaborative learning is based on the model that knowledge can be created within a population where members actively interact by sharing experiences and take on asymmetry roles. Put differently, collaborative learning refers to methodologies and environment in which learners engage in a common task, where each individual depends on and is accountable to each other. These include both face-to-face conversations and computer discussions (online forums, chat rooms, etc.). Collaborative learning activities can include

- collaborative writing,
- group projects,
- joint problem solving,
- debates,
- study teams and other such activities.

This approach is closely related to cooperative learning

Brainstorming :

The technique of brainstorming was developed by Osborne. According to Osborne, it is very difficult for an individual to create various types of thoughts in mind. But if there is a group of individuals; it will be possible to create divergent thinking. Concept of brainstorming is a way in which each individual of the group has the right to express his/her thoughts or feelings freely. Nobody is allowed to discourage others. Positive and negative thoughts both may be accepted freely. This technique is based on multidimensional thinking.

ICT :

Multimedia, is the combination of various digital media types such as text, images, audio and video, into an integrated multi-sensory interactive application or presentation to convey information to an audience. Use of ICT enables the teacher to represent the content in a more meaningful way, using different media elements. These media elements can be converted into digital form, modified and customized for the final presentation. By incorporating digital media elements into the project, the students are able to learn better since they use multiple sensory modalities, which would make them more motivated to pay more attention to the information presented and retain the information better.

Mind Mapping :

The key notion behind mind mapping is that we learn and remember more effectively by using the full range of visual and sensory tools at our disposal. Pictures, music, color, even touch and smell play a part in our learning armory will help to recollect information for long time. The key is to build up mind maps that make the most of these things building on our own creativity, thinking and cross linking between ideas that exist in our own minds. Seven steps for mind mapping are:

- Prepare layout keeping room for spreading
- Use images wherever necessary as images speak more than words
- Use a variety of bright colours to highlight various important divisions
- Find connection between divisions or branches
- Use curved branches and avoid straight ones
- Use one word per branches as far as possible



- Add appropriate images

It will help the teacher to represent the content in a more meaningful way, using different media elements. By incorporating digital media elements into the project, the students are able to learn better since they use multiple sensory modalities, which would make them motivated to pay more attention to the information presented and retain the information better.

Simulations :

Simulations are used to put the student in a "real" situation without taking the risks. Simulations are meant to be as realistic as possible where students are able to experience consequences of their behavior and decisions. Simulations are commonly used in social studies and science but can be used in other curriculum areas also. Computer simulations are quite common in today's virtual world. One example is "dissecting a frog" using the computer.

Case Studies :

Case studies involve groups of students working together to analyze a "case" that has been written on a particular situation or problem to find a solution. Case studies allow students to apply new knowledge and skills for solving complex issues. It equips them to deal with difficult situations in real life situation.

Discovery Learning :

Discovery learning is an inquiry-based learning method in which learners use prior knowledge and experience to discover new information that they use to construct learning. This method is most successful if the student has some prerequisite knowledge and the experience is structured. It provides learning environments that allow "students to talk and listen, read, write, and reflect as they approach course content through problem-solving exercises, informal small groups, simulations, case studies, role playing, and other activities -- all of which require students to apply what they are learning".

Integrated Approach :

Any subject learnt in isolation is rapidly forgotten. There exists a high degree of connectivity between various disciplines. The integrated approach to learning focuses on interlinking of concepts across various inter-related disciplines to produce a wholesome picture of the related concept. It is an inter-disciplinary approach to education and helps to learn a concept in a wider scenario. Every aspect of the concept is dealt in detail to develop proper understanding of it. It helps in promoting lateral thinking amongst the students.

Problem Based Learning and Inquiry :

Problem-Based Learning and Inquiry involves teacher giving the student a problem where inquiry must be utilized to solve the problem. There are commonly four steps in this model:

- student receives the problem,
- student gathers data,
- student organizes data and attempts an explanation to the problem, and
- student analyze the strategies they used to solve the problem.

Teaching with sense of Humour :

Using humour in teaching is a very effective tool for both the teacher and student. It provides welcome relief while trying to follow a difficult lecture on a complicated subject. Humor strengthens the relationship between student and teacher, reduces stress, makes a course more interesting and if relevant to the subject, may even enhance recall of the material. Humor has the ability to relax people, reduce tension, and thereby create an atmosphere conducive for learning and communication. It is easy to create a humor in the classroom by reading books of jokes and to listen to professional comics.

Role Play :

Role playing and scenario analysis is mostly used in organizations that try to analyze a problem pertaining to the organization, and this is also used in management institutions. But the similar kind of practice can be tried in other specialization too like science, education and social sciences. In this method the students are given a scenario and other options to solve a particular issue, then the students are exposed to decision making in a given environment. They enact the given situation, contemplate and arrive at a probable solution after analyzing various aspects of the problem.

Conclusion:

Since the teacher is the pivot of the entire educational system and is the main catalytic agent for introducing desirable changes in the teaching learning process, all attempts should be made for motivating teachers to become innovative and creative. It goes without saying that a self motivated and really industrious teacher can utilize his own resources to keep himself abreast of new knowledge and skills. Although a variety of innovative practices can be used it is necessary to use an amalgamation and combination of these for transaction of curriculum. The teacher should act as a facilitator and use innovations for effective teaching and to

promote deep learning. It has been recognized that teacher education program should be structured and modified in a way that enables them to respond dynamically to the new problems and challenges in the field of education, then only teacher can help in national development.

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