

# Innovative Practices in Teacher Education

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## Introduction

“Just as the energy is the basis of life itself and ideas the source of innovation, so is the innovation the vital spark of all human change, improvement and progress”.  
(Ted Levitt)

Education is a light that shows the mankind the right direction to surge. The purpose of education is not just making a student literate but adds rationale thinking, knowledgeable and self-sufficiency. When there is a willingness to change, there is hope for progress in any field. Education has been around for as long as man has been, though its structure and perception has varied over centuries and civilizations. Having learnt the history and development of mankind in context of present position, it reveals that change is essential for expansion and greater adaptation to life and the environment. The system of education being the preparatory ground to help men adapt to changing environment undergoes corresponding changes. A nation is built by its citizens, citizens are moulded by teachers and teachers are made by teacher educators. The National Policy 1986 has rightly stated, “No nation can rise to the level of its teachers”. Teacher education today has become a significant component of our educational system. It is intimately connected with the society and is conditioned by ethos, culture and character of a nation. The constitutional goals, the directive principles of the state policy, the socio-economic problems and the growth of knowledge, the emerging expectations and the changes operating in education call for an appropriate response from a futuristic education system and provide perspective within which teacher education programmes need to be viewed.

**Importance of Education :** Islam attaches such great importance to knowledge and education. When the Qur’an began to be revealed, the first word of its first verse was ‘Iqra’ that is, read. Education is thus the starting point of every human activity. A scholar (alim) is accorded great respect in the hadith. According to a hadith the ink of the pen of a scholar is more precious than the blood of a martyr. The

reason being that martyr is engaged in defense work while an alim (scholar) builds individuals and nations along positive lines. In this way he bestows a real life to the world.

“Education is the manifestation of perfection already in man” –  
(Swami Vivekananda)

Education is an engine for the growth and progress of any society. It not only imparts knowledge, skills and inculcates values, but is also responsible for building human capital which breeds, drives and sets technological innovation and economic growth. In today’s era, information and knowledge stand out as very important and critical input for growth and survival. Rather than looking at education simply as a means of achieving social upliftment, the society must view education also as an engine of advancement in an information era propelled by its wheels of knowledge and research leading to development.

**Methodology :** We are living in the highly scientific and technological world. Enormous changes are occurring in day to day life of human beings because of globalization, privatization and liberalization. Now there is a need for human resource to be trained in accordance with the need of technological advancement in such a way that he/she should be able to perceive new situation. The role of teacher has changed into facilitator. The challenge before our society today and particularly for our teachers is to equip our students for the requirements of contemporary life including the time less values of our civilization. The goal of our teachers should be to provide meaning full education.

Anything which is unconventional in teaching learning process is termed innovation. The word innovation comes from the Latin word ‘innovare’ which means to renew, to make new. So by innovation in education we mean any change in any one component of the educational system which is not made simply for the shake of change but with intention of promoting improvements in the aspect concerned and having regard to the close interdependence of all such aspects is the system as a whole. Innovative practices in teacher education means to make teachings training programmes effective by using important skill which are very necessary for teaching.

Research, experimentation and innovation in education have come a long way during post-Independence period in India. When there is a willingness to change and innovate, there is a hope to progress in any field. Creativity can be developed and innovation benefits both

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students and teachers. Education is an engine for the growth and progress of any society. It not only imparts knowledge, skills and inculcates values, but is also responsible for building human capital which breeds, drives, and sets technological innovation and economic growth.

**Teacher education and problems of nation :** It is universally acknowledged that education is an effective means for social reconstruction and to a great extent it offers solutions to the problems a society is faced with-economic, social, cultural, political, moral, and educational problem. Poverty, unemployment and low rate of growth and productivity are some of the major economic problems. Casteism, communalism and regionalism are some of the social problems. To provide education to all is still a dream in our country, the cost of education is increasing day by day, and formal system of education has failed to cope with increasing demand of educating masses. Since the teachers play a vital role in education of children, their own education becomes a matter of vital concern. Teacher education must create necessary awareness among teachers about their new role and responsibilities.

**Value education :** The rapid erosion of values in the society causing concern, necessitating imparting of value education. It is generally agreed that cognition is basic to volition which, by implication, would mean that prospective teachers are expected to understand critical issues, regarding values concept, types and problems involved in imbibing the values. It is also expected of them to be well-versed with the values that have the cultural contexts and can be derived from our heritage.

In the process of capacity building of intending teachers, what is of importance is to ensure that they become capable of understanding the importance of value education, interpreting values in the contemporary contexts and evolving strategies of imbibing these through their studies.

#### **Research and education innovation in teacher education**

Researches on teacher education have been and are being conducted in universities, national level institutions and other establishments but their utility for teacher educator remains rather low. Preparation of teacher educators can no longer be completed without grounding in various aspects of research surveys and studies also need to be encouraged. These may be exploratory or diagnostic in nature. The new initiatives and innovations need to be encouraged and studied. Researches can be organized around the substantive content areas of teacher education like pedagogical theory, student teaching, practices and so on. The level at which teacher education is organized provides

another frame of reference.

**Use of ICTs for improving teacher education :** Information and Communication Technology (ICT) is used to create, store, communicate, access, retrieve and manage information. It includes computers, telephones, internet, broadcasting technologies such as radio and T.V., O.H.P., or other electronic and automated means.

In present era of liberalization, ICT plays a very crucial role in transforming teacher education by supporting each and every steps ranging from admission to result display, and includes institutional planning, financial planning, supervision and monitoring, program delivery, counseling, on-line admission, evaluation, action research and reference collection. These are the innovative application of curriculum transaction in teacher training institutions in modern era of globalization, liberalization and privatization.

The success of innovation is, to a great extent, dependent upon the activities and abilities of the individuals who enthusiastically support new project or process. An essential element in the successful infusion of innovative practices in a teaching learning process is a teacher who will successfully utilize these technologies. Teachers as action researcher's can discover innovative curricular, instructional and management strategies. The taxonomy of innovations in teacher education includes collaborative practice, professional development integration of technology, standards based teacher education, electronic technologies and field based programmes.

The use of innovative methods in educational institutions has the potential not only to improve education but also to empower people, strengthen governance and galvanize the effort to achieve the human development goal for the country. Some of the Innovative methods are as follows:

#### **(a) Multimedia Learning Process:**

**I HEAR AND I FORGET**

**I SEE AND I BELIEVE**

**I DO AND I UNDERSTAND**

It is an integrated multi-sensory interactive application or presentation to convey information. Variety of audio visual media and experience correlated with additional instructional materials reinforce the value of each other. They have the advantage of appealing to the individual, the learn pace, interest and learning.

**(b) Personalized system of instruction :** The PSI is designed to reduce the needs of individual learning. It is person oriented.

**(c) Computers :** Rapid expansion in the field of knowledge has made the computer a dynamic force in education, a new interactive means of teaching. Faculty in teacher education courses is in need of technology training and curricula of teacher education need to be updated to prepare student teachers for technology driven changes already occurring in classrooms. Mainly there are four broad computer applications are there to enhance the productivity of teachers.

**(1) Computer Assisted Instruction (CAI) :** It may be defined as the use of computer as an integral part of an instructional system. By CAI students find out the information and fact used in various aspects of institutional process.

**(2) Computer Managed Instruction (CMI):** To organize instruction and track students record and progress.

**(3) Computer Mediated Communication (CMC) :** This is for communication purpose using electronic mail, computer conferencing and interactive video conferencing.

**(4) Computer Based Multimedia (CBM) :** To integrate audio, video and computer technologies into a single, accessible delivery system.

**(d) Modular approach :** Modular course is a flexible course that allows individual learn to select the course programme that best suits them from a structural hierarchy of modules, some of which are compulsory and some are optional.

**(e) Mind Map :** Mind maps were developed in the late 60s by Tony Buzan as a way of helping students make notes that used only key words and images, but mind map can be used by teachers to explain concepts in an innovative way. They are much quicker to make and much easier to remember and review because of their visual quality. The non- linear nature of mind maps makes it easy to link and cross-reference different elements of the map.

Mind Maps are also very quick to review, as it is easy to refresh information in your mind just by glancing once. Mind Maps can also be effective mnemonics and remembering their shape and structure can provide the cues necessary to remember the information within it. They engage much more of the brain in the process of assimilating and connecting facts than conventional notes.

**(f) Teaching with sense of humor :** Humor strengthens the relationship between teacher and student, reduces stress, makes a course more interesting and if relevant to the subject, may even enhance recall of material. Humor has the ability to relax people, reduce tension, and thereby create an atmosphere conducive for learning and communication. Teaching is a challenge. Learning is a challenge. Combining both effectively is a challenge. Being humorous is a challenge. However, laughing is easy. We are convinced both by experience and research that using humor in teaching is a very effective tool for both the teacher and student.

**(g) Z to A approach :** This approach attempts to explain the application part of a particular concept first. The teacher should explain the application of a particular concept first and explain the effects of such applications. For example in management subject - motivation is explained in a manner that the organization get extensive benefits out of using some techniques like promotions and awards. So here the use of promotion is explained first and later students would get interest in knowing what are promotions and awards. The teacher starts explaining what is promotion and explains what motivation theory in management is. Another example we can try is that in accounting the Income statement and Balance Sheet can be explained first and later drawing their attention to double entry system of book keeping.

**Strengths :**

1. Makes a particular concept clear.
2. Students develop interest to know exactly the concept.
3. Creates long lasting memory/correlation of a concept.

**Weaknesses :**

1. Take quite long time for a teacher to introduce a concept.
2. Initial difficulty in understanding a particular concept will be encountered.

**(h) Mnemonics Words-words- words approach :** The teacher is not supposed to talk on a particular concept for a long time. But to make clear to the students he can just go on saying mnemonics or its associated meaning in words. Here he goes on only saying instead of sentence and once they come to a basic understanding of the meaning of a particular concept then the teacher will explain in sentences.

For example in teaching language courses this technique can be used as an effective medium by the teacher to develop word power.

1. Dictionary must be used widely
2. Word power increases
3. Teacher also gets to know many words pertaining to a particular concept.

**(i) Internet :** using the internet demands much more on the teacher's part. Teachers not only need a general knowledge of computers, but also need to learn to use e-mail, servers, the file transfer protocol, world wide web etc. Teachers deserve the best tools as they hold the future citizens in their hands. Internet is a vehicle of change. So the quality of education can only be improved if proper training for using internet is provided to the teachers.

**(j) Instructional Television :** It is an effective distance education delivery system. It may be passive or interactive; Passive ITV includes already produced programmes that are distributed by video based technologies such as broadcast, cable or satellite. Interactive ITV provides opportunities for viewer interaction with a live instruction.

**(k) Interactive Video conferencing :** It allows visual contact between students and the instructor or among students at different places. It is use of technology infusion, establishes an authentic context and provides supplementary experiences; interaction and learning that enable teachers to move into roles of highly skilled, effective teachers. Teachers must learn to use videoconferencing for professional development. They must be provided initial instruction in how to use this technology in evaluating lesson plans, starting field based experiences, and providing feedback on pre service teacher's multimedia presentation.

**(l) E-Learning :** It has been described as the use of electronic technology to deliver, support and enhance teaching and learning. It requires new skills, competencies in learning and attitude among those teachers who are going to design and develop material online. Generation of new competencies in learning is becoming key issue for teacher education e-learning helps to change an organizational culture to the extent that it is being utilized in a multiplicity of organizational environment and for diverse audiences.

**(m) ROLE PLAYING AND SCENARIO ANALYSIS BASED TEACHING :** 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

and engineering. Science and engineering courses have practical but in support of those practical if 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.

For example, in teaching accounting the role of accountant can be explained by role playing technique. Invoice and bills can be given to students and asked them to assume the role of accountant. Here the real entries pertaining to transactions are made by the student and this is more practical approach to teaching where theory is supplemented by proper practical knowledge. Similar kind of technique can be applied in management, engineering and science courses.

**Factors affecting innovative teacher practices :** There are certain genotypical and phenotypical characteristics that inhibit introduction of any innovative practice. The factors are as follows:

- Resistance to change from the environment.
- Incompetence of outside agents.
- Over centralization.
- Teacher defensiveness.
- Absence of change agent.
- Incomplete linkage between theory and practice.
- Under developed scientific base.
- Professional invisibility.
- No rewards for innovating.
- Uniformity of approach.
- Monopoly in school.
- Low knowledge of component.
- Low investment research and development.
- Low technological and financial investment.
- Difficulty in diagnosing weaknesses.
- Product measurement problems.
- Passivity
- Lack of procedure and training for change.
- Teachers being favorably disposed towards innovation
- Teachers clear understanding of innovation.
- Innovation being within teacher capability.
- Provision for necessary resources for innovation.

**INNOVATION: The Need of the Hour :** Educational setup needs overhauling at every step, whether it's the area of finance, administration, teaching methodology, learning strategies or curriculum formation etc. To encourage participation of teachers we need to empower the teacher community. Empowerment regarding finance, decision making, introduction of new academic programmes and setting time-table, etc. Finance is the axis of every development activity. No change is possible without financial assistance. If the teacher thinks that particular equipment is important for maximizing the learning he/she should have the right to purchase but unfortunately our system does not permit this kind of autonomy. To develop harmony among teachers team-teaching can be in terms of quality education as well as knowledge sharing among teachers. Reorientation programmes should be conducted from time to time. To brush up the academic potentialities and participation of teachers. Re-orientation programmes also break monotony in teachers.

Education is the third eye of an individual and is considered as development of modesty, faithfulness, efficiency, skills, spiritualism, curiosity, humanity, health and feeling of universal brotherhood. Teacher should involve pupils more in setting their goals and identifying ways of achieving them.

**Conclusion :** Teacher education prepares teacher to help learners meet the challenges of life, fully and confidently. There should be open investment in Teacher Education for capacity building and development of creative faculties. Innovations should be all pervasive right from conception to delivery of teacher education considered a system, a discipline, a culture, is unfortunately being considered as an attachment. There is an increasing awareness that cultivating innovation as part of system reforms and engaging teachers in the development of innovation is an important part to improving learning outcomes for all students. This issue of teacher education challenges innovators and assessors to cooperate in reorganizing the landscape of teacher education. We can make out that the Information and communication technology has made many innovations in the field of teaching and also made a drastic change from the old paradigm of teaching and learning. In the new paradigm of learning, the role of student is more important than teachers. The concepts of paperless and penless classroom are emerging as an alternative to the old teaching learning method. Nowadays there is democratization of knowledge and the role of the teacher is changing to that of facilitator. We need to have interactive teaching and

this changing role of education is inevitable with the introduction of multimedia technology and the spawning of a technologically-savvy generation of youths. The analysis reveals some of the suggestions that the teaching community can practice in the classrooms. Ultimately the teaching people are satisfied when he could reach the students community with his ideas and views. So, teaching depends upon successful mode of communication and Innovation though we mean the changes that we propose to be included in our medium of communication or even inclusion of some other elements in communicating information. The researchers recommend that the teaching would be highly effective if the teacher start to use the recent multimedia technologies like usage of computers extensively or some modifications in the conventional mode of teaching. The use of computers may be very well practiced in the environment where the use of such technology is highly possible, but there must be some sort of innovation which can also be practiced in an environment where such use of technology is on its way to growth. In sthose environments use of humor, role playing, words –words approach, Z-A approach are the ideas that can very well be practiced. The researchers believe that the core objective of teaching is passing on the information or knowledge to the minds of the students. Any method using computers or modifying the existing conventional chalk-talk method are innovative if they ultimately serve the attainment of core objective of teaching.

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