INNOVATIONS IN TEACHER EDUCATION

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Abstract

Teacher Education is a discipline which educates the progressive generations on what has gone by, where we are, where we want to go, and what we like to create, observing healthy, meaningful and long life. It is one of the significant areas where a lot of innovative ideas can be tried out and practiced.

The Present paper discusses about the need of teacher education program to be innovative, and also the scenario of innovative teacher education program in various universities and institutes of the country. The paper also discusses the basic features of some of these innovative teacher education programs and approaches and at the end suggests some innovative features of teacher education programs.

INTRODUCTION

Where the ideas spring, feelings flow, motor creates, nature blooms, self with environ resonates, the spirit reins, there, we innovate, construct and create. The soul of a gardener resides in the seeds, the soul of a philosopher resides in the mind, the soul of a piper resides in the pipe, the soul of a singer resides in the voice, the soul of a dancer resides in each and every body cell, the soul of a poet wanders in the nature, the soul of a sculptor resides in the stone, the soul of a teacher wanders with the learners. Dancing crops, flowing wisdom, enchanting music, touching songs, resonating dance, immersing verses, speaking sculptures, and enlightened learners are the wonderful springs of nature. Teacher Education is a discipline which educates the progressive generations on what has gone by, where we are, where we want to go, and what we like to create, observing healthy, meaningful and long life.

HUMANE AND PROFESSIONAL TEACHER

Teacher Education for preparing humane and professional teachers needs to be wholistic. Along with content and methodology there is also a need to integrate emotional competencies, such as, self-awareness and self-management, social sensitivity and social management. It is also essential to integrate life skills, such as, self-awareness, empathy, interpersonal relationship, effective communication, critical thinking, creative thinking, decision making, problem solving, and coping up with emotions and stress with teaching and learning. We need to integrate info-savvy skills, such as, asking, accessing, analyzing, applying and assessing. It is needed to integrate techno-pedagogic skills, such as, media-message compatibility, media designing, integration of message media and modes, realizing proximity of message forms, media language proficiency, media choice, message authenticity and media credibility, media automation, media integration and media acculturation. It is required to integrate human development climate through trust, risk taking, openness, reward, responsibilities, top support, feedback, team spirit and collaboration. There is a need to integrate spiritual intelligence dimensions, such as, knowledge of God, religiosity, soul or inner being, self awareness, quest for life values, convention, commitment and character, happiness and distress, brotherhood, equality of caste, creed, colour and gender, inter-personal relations, acceptance and empathy, love and compassion, flexibility, leadership, life and death. The Teacher Education programs need to integrate innumerable skills & competencies.

It is necessary to shift to more powerful learning paradigms, such as, linear to hypermedia learning, instruction to discovery and construction, teacher centered to learner centered education, absorbing material to learning how to navigate and learn, learning as taxing to learning as fun, teacher as transmitter to teacher as facilitator. We need to bridge the gaps between to have and to be. There is a need to bridge the gaps between Teaching Styles and Learning Styles providing differentiated differential learning experiences to learners of all the learning styles- audio, video and kinesthetic; cognitivistic, behaviouristic and constructivistic; accommodators, divergers, convergers and assimilators. Instructions should be directed to the whole brain, because if the instructions are directed more to the left half of the brain it results into aggression, fragmentation and rationalization, whereas, considering the right half of the brain results into assertion, integration and responsiveness. Every institution should make efforts for inculcating the basic values, such as, cleanliness, punctuality, equality, truthfulness, duty fullness, national identity, perseverance, sense of responsibility, and cooperation. Teacher Education Institutions should help realize the sensitivity towards cultural values, such as, honesty, loyalty to self and others, Love and affection for family and home, absolute norms, work hard ethics, compassion, peace, inoffensive speech, politeness, and personal responsibility. Education should be value added. Character building should be on of the primary aims of education.

Identity of Teacher Education

Every teacher Education institution ought to have valid identity. Valid identity means valid institutional land & plant, valid setting, valid inputs, valid processes and valid products. Each and every Teacher and Teacher Educator ought to have a Unique Identification Number. The Self-Disclosure exercise
being done by the Teacher Education Institutions is likely to present the reality. The National Curriculum Framework for Teacher Education: Towards Preparing Professional and Humane Teacher (Dec. 2009) is with high hopes. Also, Teacher Education: Reflections Towards Policy Formulation (2009) is quite promising. Teacher Education will have to revive and build its identity to be innovative.

**Culture for Innovations**

Every innovation has a unique culture, created by the innovators. novel ideas, personal dedication, institutional and social support, persistent struggle are some of the features of innovations. It is evident through each one of the following innovative approaches.

- Integration of Micro-Teaching Skills
- Integration of Life-Skills
- Integration of Techno-Pedagogic Skills
- Problem Solving Through Participatory Approach
- Personalized Teacher Education
- Integrated Teacher Education
- Specialized Teacher Education
- ICT Mediated Education
- Bridging the gaps between Teaching Styles & Learning Styles
- Developing Integrated Thinking Styles
- Training Thinking
- Choice Based Credit System
- Electronic Distribution of Examination Papers (EDEP)
- Double Valuation
- Total internal Continuous Comprehensive Evaluation
- Constructivist Approach
- Research through novel approaches
- Wholistic Approach

**INNOVATIVE PROGRAMS IN TEACHER EDUCATION**

Teacher Education Institutions at different levels, particularly in higher and technical education field countrywide, have innovated and institutionalized a number of programs, namely,

- M Tech Ed by NITTTR, Bhopal and Chennai
- M Tech Engineering Education by NITTTR, Chandigarh
- M Tech HRD by NITTTR, Chennai
- B.C.Ed. (1989) by DAVV, Indore
- M.C.Ed. (1991) by DAVV, Indore
- Master of Educational Technology (Computer Applications) by SNDT, University, Mumbai
- M.Tech. (Educational Technology) by Kurukshetra University, Kurukshetra
- B.Sc. in Teaching Technology by Sikkim Manipal University
- HSTP, Training Teachers, Eklavya, MP (1982)
- Activity Based Teacher Education Program, DAVV, Indore (1991)
- Personalized Teacher Education Program, Lucknow University, Lucknow (1996)
- Comprehensive Teacher Education Program, Gandhi Shikshan Bhavan College of Education, Mumbai University, Mumbai (2000)
- Four Year Integrated Program of Teacher Education, Kurukshetra University, Kurukshetra (1955)
- Four Year Integrated Program of Teacher Education, RIE, NCERT (1963)
- B.Ed. (Educational Technology), AEC Teacher Training College, Pachmadi, MP
- Early Faculty Induction Programme (EFIP) under QIP by AICTE, New Delhi
- Induction Training Programme (ITP) under QIP by AICTE, New Delhi
- University of Teacher Education, Chennai, Tamilnadu (2008)
- IGNOU Institute of Professional Competency Advancement of Teachers (IIPCAT, 2009), IGNOU, India
- Indian Institute of Teacher Education, Gujarat (Bill 4, 2010)

Though a comprehensive list of Innovative Programs is available, innovations are very rare. It may be attributed to various factors. Novel ideas do not incubate because of the adverse external conditions. There are wide gaps between the visionaries and actors. So, very often the innovations have short life and die down in the institutions, where these originate. Sometimes, the most innovative programs fail in the formal system, because, these are beyond the view and purview of the apex bodies. Four year Integrated Secondary Teacher Education Programs need excellent Teacher Educators who are Philosophers of basic Disciplines, as well as, Education. Such a combination is rarely found. In addition to this, these need to have scope for vertical mobility. Activity based, Personalized Teacher Education Programs though originated with zeal, yet need to struggle to sustain themselves in the forms envisaged.

**FEATURES OF SOME OF THE INNOVATIVE PROGRAMS**

**Personalized Teacher Education (DAVV, 1991)**

Activity based Teacher Education Program (Zero Lecture Program) originated and institutionalized at the School of Education, DAVV, Indore (1991) was deployed at Lucknow (1996). Some of the features of this Program are:

- Choice of Volunteers
- Learner Centered
- Personalized Classroom Setting
- Participatory Approach
- No lectures by Teacher Educators (ZLP)
- Freedom for what to study, how to study, where to study, and when to study
- Peer Teaching-Learning-Evaluation
- Variety in the modes of presentation
- Successive Discussions
- Evaluation-Self, Peer, and Teacher
- Emergence of Humanistic, Friendly, Confident, Open, Resourceful, Dedicated, Creative, Constructive, Innovative and Wholistic Masters.

**Wholistic Teacher Education (CASE, 2008)**

The Centre for Advanced Studies in Education (CASE), Vadodara has been strengthening Wholistic Teacher Education through seminars, research and publications. A Research Study has been conducted on rehabilitation of Street Children through Wholistic Approach. Some Research Studies are being conducted on Wholistic Science Education Program and Wholistic Development through Leisure Time Activities. The wholistic teacher education program is quite promising. Some of the features of the program are:

- Subject Knowledge
- Inter-disciplinary
- Environmental Attitude
- Health development
- Emotional development
- Spiritual development
- Integrated development

**Problem solving in higher education through participatory approach (DAVV, 1992)**

- The M.C.Ed. class (1992), DAVV, Indore was very often given a problem to be solved through a computer program.
- Number of different programmes would emerge from the entire class.
- Each program was presented by one of the programmers to the rest of the class and rated by all the students on different criteria, namely, compactness of source code, fetch and execute cycle size, response time, memory used, programming discipline level and programme intelligibility.
- Also, the students developed programme to calculate Kendell's Coefficient of Concordance through 'C' language. They then computed Kendell's coefficient of concordance individual criterion wise and with respect to the comprehensive criteria.
- There is a significant cognitive development through cognitively mapping the algorithms and solution to a problem. This approach cuts across students of varied profiles, simultaneously. Participatory approach may be introduced in various disciplines to enhance learning in all domains. It facilitates creative production and independent thinking. Also, it provides scope to experience and appreciate the cognitive maps of others.

**Development of Creative Writing Ability Amongst Students Through Participatory Approach (CASE, 2010)**

- Recitation of Model Poems by the Teacher in Class situation
- Appreciation of the poem by the class and identification of the various components of creative composition
- Composition of a variety of poems by the students individually, and in groups
- Recitation of the self composed poems by the classmates and appreciation by rest of the class

Participatory approach of creative writing facilitates expression of the latent creative faculties in terms of original production.

**IGNOU Institute of Professional Competency Advancement of Teachers (IIPCAT, 2009), IGNOU, India**

**Vision & Mission**

The vision of IIPCAT encompasses improvement in the quality of education by continuously striving for competency advancement of teachers of different disciplines at all stages of education, that is, Pre-School, Primary, Upper Primary, Secondary, Senior Secondary, and tertiary stages of education. It shall endeavor to develop itself as an effective vehicle to transform the modality of curriculum transaction in educational institutions so as to improve the quality of education in particular and of human life in general.

The mission of the IIPCAT shall include competency advancement of teachers of all levels and in all aspects of teachers' functions and responsibilities. To accomplish this mission, the IIPCAT shall use multiple strategies, such as, organization of in-service education, preparation of quality reference material, making arrangements for practical training. There is hope that as a result of the interventions of the IIPCAT, the teachers will relatively be more enlightened, professionally competent and socially responsive.

**The Indian Institution of Teacher Education, Gujarat (Bill, 2010)**

This is a Bill to establish the Institute of Teacher Education to promote teachers' development of integral personality, wide vision of nationalism and internationalism and to fulfill their role as exemplars, as friends, philosophers and guides, as scientists, psychologists, artists and technologists and above all as ideal communicators who can spread uplifting influence by the processes of awakening, inspiration, and enthusiasm, also to new trends of syntheses of the East and the West and agents of change from old to the new and to confer the status
of a University thereon and for matters connected therewith or incidental there to.

**Integrated Teacher Education**

Integrated Teacher Education Programs have been found to have a mixed scenario. Some are alive, some have died, whereas, some are taking birth. The Integrated Teacher Education Programs offered by the Regional Institutes of Education since many years have self-recognition and accreditation. There is a need to conduct research on the integrated Teacher Education Programs offered by the various institutions. There is also a need to mentor and monitor the Innovative Teacher Education Programs in all the regions.

**Technology Integrated Teacher Education**

There is technological revolution in Teacher Education. There is a shift from Bachelor of Teaching to Bachelor of Learning, that too, Bachelor of e-Learning. There is a shift from e-Learning 1.0 (Online learning) to e-Learning 2.0 (Twitter, Facebook) to e-Learning 3.0 (Semantic Web), that is, from content to community to Artificial Intelligence. There is a quick shift from web-1 to web-2 to web-3. We have initiated into Open Education, Open Course Ware, Open Source Software, Open Content and Open Research. There are proposals for e-Teacher Education. Smart Classrooms are emerging, wherein, we have e-learning and e-testing. Terms like Wi-Fi, iPad, e-Book, e-Reader, e-News Letter, Webinar are widely used. Digital Lesson Designs and e-Portfolios have become common features. There are compendiums of e-abstracts and Surveys of Educational Research in India on the World Wide Web. The NCTE is expediting Teacher Education on e-Technologies through an MOU with the Intel. There is wide scope for transformation of Teacher Education through Technology.

**PATHWAYS OF INNOVATIVE APPROACHES**

1. Healthy organizational Culture and Climate for birth of ideas.
2. Congenial conditions for incubation of germinated seeds.
3. Institutional, administrative and social support for development of ideas.
4. Differential treatment to the innovators for formulating innovative programs.
5. Individual and Institutional readiness for tolerance and absorption of failure.
6. Due appreciation of success and openness for deployment.
7. Standards of innovative programs as guides for replication.
8. Readiness of apex agencies to view and review innovations.

**INNOVATIVE TEACHER EDUCATION : SOME FEATURES**

**SUGGESTED INNOVATIVE COURSES, PROGRAMS AND ACTIONS IN TEACHER EDUCATION**

**a. Certificate/Diploma Courses**

There can be innovations in Teacher Education through e-Open Sourcing in many areas, such as,

1. Personality Development
2. Human Rights Education
3. Life Skills Education
4. Techno-Pedagogic Skills
5. Management of Learning Systems
6. Media Program Appreciation
7. Multi-cultural Education
8. Environmental Education
9. Adolescence Education
10. Adult Education
11. Old Age Education
12. Technology Integrated Education
13. Instructional Design
14. e-Content Development
15. e-Communication
16. Non-Verbal Skills
17. Vocational Education
18. Psychological Appraisal
19. International Understanding & National Integration
b. Programs
1. e-Teacher Education
2. Modular Teacher Education
3. Integrated Teacher Education
4. Specialized Teacher Education
5. Personalized Teacher Education

c. Actions
1. There is largely scarcity of Professors in the M.Ed. Program offered all over India. The services of the retired Professors could be sought, more so, through Distance Mode through State and National Open Universities to strengthen the M.Ed. Program.
2. To qualify the entrance test for induction into the Ph.D. Programs has become mandatory through out India as per the UGC guidelines. Various Universities are designing their own entrance tests. An online test may be conducted by the UGC.
3. Identification of the innovative research could be done if all the Departments of Education Countrywide contribute in this area. They may periodically produce the Research Abstracts of the Studies conducted in their respective Departments, which may be made available on the World Wide Web.
4. Every Teacher Educator may be given Unique Identification Number. It will facilitate Manpower Planning in Teacher Education.
5. There should be networking amongst all the Teacher Education Institutions to learn from the innovative practices of each other.
6. Efforts should be made to realize wholistic Teacher Education by integrating various skills, such as, micro-teaching, info-savvy, techno-pedagogic, life skills in the various Teacher Education Programs. Along with cognitive development there should be adequate focus on emotional maturity, psycho-motor development, health and environment, and inter-disciplinary development.
7. It is imperative to strengthen Vocational Teacher Education in almost all the domains of Vocational Education, such as, agriculture, horticulture, sericulture, servicing of the electric and electronic appliances. Innovative approaches need to be evolved.

CONCLUDING REMARKS
Innovativeness by virtue of its nature is essential feature of Teacher Education. Teacher Education prepares the teachers to help learners meet the challenges of life, fully & 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. Teacher Education Curriculum Framework by virtue of its nature has to be suggestive, not prescriptive. Deciding the body of the curriculum, modes of transaction, and evaluation should be left to the discretion of teacher Educators and Teacher Education Institutions. But, it is a social reality that the society likes conformists and not heretics. Expected return on investment is in terms of reaping the benefits rather than nurturing the innovativeness. Teacher Education rather than considered a system, a discipline, a culture, is unfortunately being considered as an attachment. Sensing the complex challenges of the emerging society, Teacher Education has to realize its identity to innovate, construct and create. Research rather than stereotyped, should have problem based agenda. The researchers should be respected and paid differentially, simply because of the extremely added stress due to unquenched quest for exploration. Innovations breed in a peaceful environment, a unique, dedicated and humanistic culture. Growing complexities of the society and emerging challenges of life demand a self renewing innovative Teacher Education which is essential for survival.

There is nothing to get disheartened. Indian Education is a state of flux. It is highly a state of flux in Indian Education. The national vision and mission will definitely nurture innovations as evident through the emergence of National Curriculum for Teacher Education (NCTE, 2009) and Teacher Education: Reflections Towards Policy Formation (NCTE, 2009). There are proposals for Integrated and Innovative Teacher Education Programs (Navrachna University, Vadodara, 2009 and Carolex University, Ahmedabad, 2009). A Bill is through on The Indian Institute of Teacher Education, Gujarat (Bill 4, 2010) which envisages to establish a Centre of Excellence in Teacher Education for Research, Training & Development, Extension and Capacity Building to Exhilarate and Enthuse Educators and Institutions. There is Research for Wholistic Education. Even the general streams of Science and Arts have realized the importance of Teacher Education (Gandhigram Rural University, Dindigul). Attempts are being made for enhancement of professional competencies of teachers through ICT mediated Constructivist Approach. India is committed to compatible education for all, which is being realized through the various dedicated programs, essentially innovative in nature.

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