

Exploration and Excogitation 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. Teacher education is a program related with teacher proficiency and competence that would make them competent enough to face new challenges in the education. Now a days the field of education is not only limited with books but has broadened in various new horizons. Development and changes in education have affected teacher education necessitating review and reforms. It demands understanding with investigative minds, assimilating the required transformations, accommodating and responding to the universal needs. 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. Problem-based learning (PBL) is a powerful, learner-centered educational method, where students have to work in small groups. This teaching method is somewhere between project work and cooperative learning with a new kind of task definition. PBL is an innovative strategy to encourage students to “learn how to learn” via “real-life” problems (Boud & Feletti, 1999) and promotes life-long habits of learning. Students are given more and more responsibility and independence for their own learning. Among other modifications, Anderson and Krathwohl’s (2001) revision of the original Bloom’s taxonomy (Bloom & Krathwohl, 1956) redefines the cognitive domain as the intersection of the Cognitive Process Dimension and the Knowledge Dimension. Every innovation has a unique culture, created by the innovators. Novel ideas, personal dedication, institutional social support, persistent struggle are some of the features of innovations.*

Keywords: necessitating, horizons, innovative, redefines, persistent.

INTRODUCTION

Where the ideas spring, feelings flow, motor creates, nature blooms, self with environment 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, peaking 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.¹ India has a large system of education. There are nearly 5.98 lakh Primary Schools, 76 lakh Elementary Schools and 98 thousand Higher Secondary Schools in the country, about 1300 teacher education institutions for elementary teachers and nearly 700 colleges of education / university departments preparing 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.²

TEACHER EDUCATION

The quality of a nation depends upon the quality of its citizens. The quality of its citizens depends not exclusively, but in critical measure upon the quality of their education, the quality of their education depends more than upon any single factor, upon the quality of their teacher.”

-The American Commission on Teacher Education³

“The teacher is the most important element in any educational program. It is the teacher who is mainly responsible for implementation of the educational process at any stage.”

- (NCTE, 1998)⁴

¹Goel, D.R. and Goel, C. Innovations in Teacher Education. Retrieved On: August 3, 2015, from <http://nitttrbpl.ac.in/journal/volume1/paper5.pdf> @ 12:22AM

²Singh, G. Emerging Trends and Innovations in Teacher Education. Retrieved on: August 5, 2015, from <https://www.somaiya.edu/media/pdf/Imerging%20trends%20in%20teacher%20education%20in%20India.pdf> @9:12PM

³ Kumar, I.A. and Parveen, S. Teacher Education in the Age of Globalization. Retrieved On: August 5, 2015, from http://www.isca.in/EDU_SCI/Archive/v1/i1/2.ISCA-RJES-2013-001.pdf @ 10:02PM

Teacher education is a program related with teacher proficiency and competence that would make them competent enough to face new challenges in the education. Now a days the field of education is not only limited with books but has broadened in various new horizons. Development and changes in education have affected teacher education necessitating review and reforms. It demands understanding with investigative minds, assimilating the required transformations, accommodating and responding to the universal needs. 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.⁵

MINISTRY OF HUMAN RESOURCE DEVELOPMENT⁶

PROGRAM VISION

Achieve significant improvement in the quality of

PROGRAM MISSION

Enhance performance and effectiveness of TEIs; capacity building through effective linkages with Institutions of HE; infrastructural strengthening; technology support and use of holistic quality

NATIONAL CURRICULUM FRAMEWORK ON TEACHER EDUCATION (2009)

Prepared by NCTE in the background of the NCF, 2005 as well as the principles laid down in the RTE Act, 2009. The important dimensions being:

- Reflective practice to be the central aim of teacher education;
- Student-teachers should be provided opportunities for self learning, reflection, assimilation and articulation of new ideas;
- Developing capacities for self-directed learning and ability to think, be critical and to work in groups.
- Providing opportunities to student-teachers to observe and engage with children, communicate with and relate to children.⁷

MODEL CURRICULUM

- Based on the new Framework, the NCTE has** also developed ‘model’ syllabus for various teacher education courses which can be adopted/adapted by the examination bodies -Universities and State Boards, while revising the curriculum and syllabi of the teacher education courses.
- Model curriculum for D.El.Ed, B.Ed, and M.Ed available on the web site of NCTE as well as that of department.
- YEAR I**
 - Childhood and the Development of Children

⁴ Simmi. Teacher Education: From Vision To Action. Retrieved On: August 5,2015, from, <http://www.ajms.co.in/sites/ajms/index.php/ajms/article/view/507> @10:04PM

⁵ Joshi, R.B. Emerging Trends in Teacher Education: A Study. Retrieved On: August 3,2015, from http://ijrar.com/upload_issue/ijrar_issue_136.pdf @12:26AM

⁶ Singh, A. Innovations in Teacher Education. Retrieved On: August 3,2015, from http://www.educationbiz.in/2012/pdf/dr_amarjit_singh.pdf @4:38PM

⁷ <http://mhrd.gov.in/teacher-education-overview> , Last Assessed on August 3,2015@12:26AM

- Contemporary Indian Society
- Education, Society, Curriculum and Learners
- Towards Self-understanding and Evolving an
- Educational Vision
- Pedagogy across the Curriculum
- Understanding Language and Early Literacy
- Mathematics Education for the Primary School
- Child Proficiency in English

YEAR II

- Cognition, Learning and the Socio-Cultural Context

- Towards Self-understanding and Evolving an Educational Vision II
- School Culture, Leadership and Change
- Pedagogy of Environmental Studies
- Pedagogy of English Language
 - Optional Pedagogic Courses
- Social Science Education
- Language Education
- Mathematics Education
- Science Education
- Diversity, Gender and Inclusive Education

PRACTICUM YEAR I & II

- Children's Physical and Emotional Health, School Health and Education.
- Creative Drama, Fine Arts and Education
- Work and Education
- School Internship⁸

TEACHER QUALIFICATIONS & TET

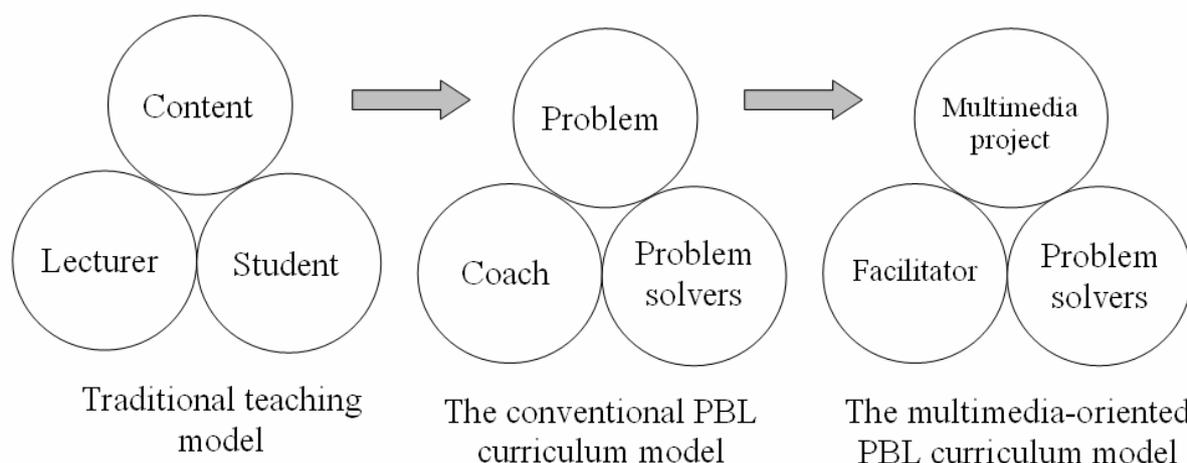
- D.El Ed and B. El.Ed
- Persons with 2-year Diploma in Education (Special Education) and persons with Bachelors in Education (Special Education) recognized by the Rehabilitation Council of India (RCI) are eligible for appointment as regular teachers in classes I – V and classes VI to VIII, respectively.
- In addition to the academic and professional qualifications specified in the Notification, every person, in order to be eligible for appointment as a teacher, has to pass a Teacher Eligibility Test (TET) which would be conducted by the appropriate Government in accordance with the Guidelines issues by the NCTE.⁹

PROBLEM-BASED LEARNING CURRICULUM MODEL

The multimedia-oriented Problem-Based Learning curriculum model (source by Neo and Neo, 2001)

⁸ Yadav, S.K. National Study On Ten Year School Curriculum Implementation. Retrieved On: August 3,2015, from http://ncert.nic.in/rightside/links/national_curriculum.pdf @12:41AM

⁹ Ahmad, H. National Council For Teacher Education Notification. Retrieved On: August 3,2015, from http://www.education.kerala.gov.in/Downloads2011/rte/national_council.pdf @12:41AM



Problem-based learning (PBL) is a powerful, learner-centered educational method, where students have to work in small groups. This teaching method is somewhere between project work and cooperative learning with a new kind of task definition. PBL uses messy, ill-defined, complex, real world problems to stimulate and motivate students to identify and apply information, work collaboratively and communicate effectively. PBL is an innovative strategy to encourage students to “learn how to learn” via “real-life” problems (Boud & Feletti, 1999) and promotes life-long habits of learning. Students are given more and more responsibility and independence for their own learning. This results in a shift from traditional teacher and student roles to new teacher and student roles. The teacher is not the main source of knowledge any more, he or she is a facilitator who provides the educational materials, helps the students in their learning and gives guidance that facilitate their learning.¹⁰

NATIONAL COUNCIL FOR TEACHER EDUCATION (NCTE)

Although National Council for Teacher Education (NCTE) as a non-statutory body has taken several steps as regards quality improvement in teacher education.

- ❑ Its major contribution was to prepare Teacher Education Curriculum Framework consequently; teacher education curricula have witnessed many changes in teacher preparation programmes in various universities and boards in the country.
- ❑ During the last decade, new thrusts have been posed due to rapid changes in the educational, political, social and economic contexts at the national and international levels.
- ❑ Curriculum reconstruction has also become imperative in the light of some perceptible gaps in teacher education.
- ❑ Teacher education by and large, is conventional in its nature and purpose.
- ❑ Teachers are prepared in competencies and skills which necessarily equip them for becoming professionally effective.¹¹

SOME RESEARCH STUDIES

- Rao et al (2001) in their study 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.
- Jukes (2003) in his study revealed that it is well known that pupil learn more when they are involved actively in learning than when they are passive recipients of instruction.¹²
- Goel, Das, and Shelat (2003) in their study revealed that a sizeable number of teacher education institutions in India have initiated ICT in education either as a core course or as optional course. In spite of the impeding factors, namely, limited staff, inadequate laboratories with maintenance problems, sizeable classes, the courses have been found to realize their objectives reasonably.

¹⁰ Gyongyver, M. The use of innovative tools in teacher education: a case study. Retrieved On: August 3,2015, from http://www.staff.u-szeged.hu/~gymolnar/sombor_2.pdf @4:28PM

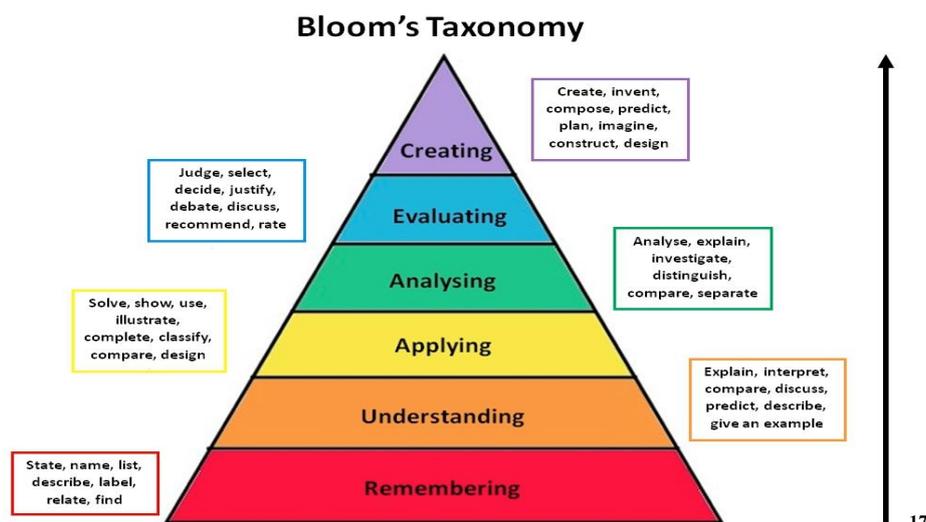
¹¹Supra 4

¹² Kumari , N.K. Modern and Innovative Practices and Impact on Teacher Education. Retrieved On: August 3,2015, from <http://ijmer.in/pdf/volume1-issue2-2012/430-435.pdf>@5:02PM

- 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.¹³
- The study conducted by Madhavi (2009) reveals that research aptitude, educational management aptitude, adjustment capacity and teacher education disciplinary profile have been found to be significant predictors of teacher education proficiency in the western region of India. The study has tried to scale the techno pedagogic skills amongst the M.Ed. students. The study reveals that living competencies and techno-pedagogic competencies have not been found to be the significant predictors of teacher education proficiency in India.
- The study conducted by Helaiya (2009) very well presents how the life skills can be developed in the pre-service teachers and integrated in the teacher education programmes. The study insists that all the life skills need to be integrated in the teacher education programmes. There should be simultaneous focus on creative thinking and critical thinking, as well as, self-management and social management. The present century teachers ought to be highly skilled in management of stress and emotions.¹⁴
- The intervention program by Dutta (2009) was an attempt to provide student-teachers with varied exposure and experience which helped them to enhance various emotional skills and so emotional maturity. The various skills need to be properly integrated in teacher education.
- The Study by Dhodi (2011) on the development of info-savvy skills in Secondary Student-Teachers demonstrates very well how the info-savvy skills of asking, accessing, analysing, applying and assessing were developed in the pre-service teachers of India through surfing on cultural heritage of India, Buddhist heritage of India and on the domains of their respective discipline methods.¹⁵

BLOOM TAXONOMY OF NEEDS REVISED

Among other modifications, Anderson and Krathwohl's (2001) revision of the original Bloom's taxonomy (Bloom & Krathwohl, 1956) redefines the cognitive domain as the intersection of the Cognitive Process Dimension and the Knowledge Dimension. Although the Cognitive Process and Knowledge dimensions are represented as hierarchical steps, the distinctions between categories are not always clear-cut. For example, all procedural knowledge is not necessarily more abstract than all conceptual knowledge; and an objective that involves analyzing or evaluating may require thinking skills that are no less complex than one that involves creating. It is generally understood, nonetheless, that lower order thinking skills are subsumed by, and provide the foundation for higher order thinking skills.¹⁶



¹³ Supra 15

¹⁴ Goel, D.R. and Goel, C. Teacher Education Scenario in India: Current Problems & Concerns. Retrieved On: August 5,2015, from http://www.educationforallindia.com/teachers_education_scenario_india_goel_and_goel.pdf @8:29PM

¹⁵ Supra 17

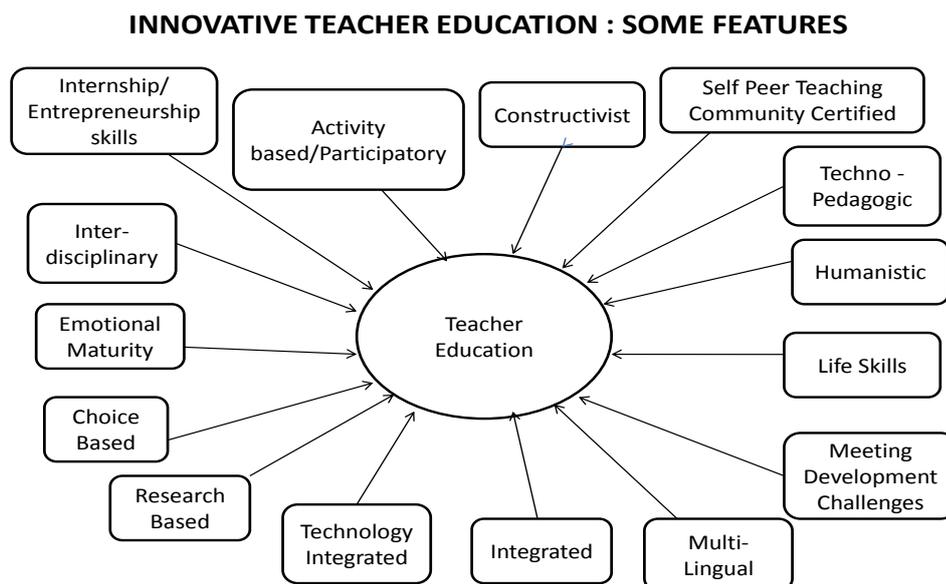
¹⁶ <http://www.celt.iastate.edu/pdfs-docs/teaching/RevisedBloomsHandout.pdf> , Last Assessed on August 3,2015@5:50PM

¹⁷ Kolomitro, K. And Gee, K. Developing Effective Learning Outcomes. Retrieved On: August 5,2015, from <http://www.queensu.ca/ctl/resources/publications/learning-outcomes/LO-Guide.pdf> @5:49PM

APPROACHES OF INNOVATION IN TEACHER EDUCATION

Every innovation has a unique culture, created by the innovators. Novel ideas, personal dedication, institutional 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 SNTD, University, Mumbai
- M.Tech. (Educational Technology) by Kurekshetra University, Kurekshetra
- B.Sc. in Teaching Technology by Sikkim Manipal University Culture for Innovations and HSTP, Training Teachers, Eklavya, MP(198 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, Kurekshetra University, Kurekshetra (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, Tamil Nadu(2008)
- IGNOU Institute of Professional Competency
- Advancement of Teachers (IIPCAT, 2009), IGNOU, India Indian Institute of Teacher Education, Gujarat (Bill 4,2010)

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.¹⁸

INNOVATIVE TEACHER EDUCATION: SOME FEATURES

- 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.

- The Centre for Advanced Studies in Education(CASE),**

¹⁸ Supra 1

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.

❑ ***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 (Twitters, Face-book) 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, I Pad, 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 WideWeb. The NCTE is expediting Teacher Education on e-Technologies through an MOU with the Intel. There is wide scope for of Teacher Education through Technology.

❑ ***Pathways of innovative approaches***

- Healthy organizational Culture Climate for birth of ideas.
- Congenial conditions for incubation of germinated seeds.
- Institutional, administrative and social support for development of ideas.
- Differential treatment to the innovators for formulating innovative programs.

- Individual and Institutional readiness for tolerance and absorption of failure.
- Due appreciation of success and openness for deployment.
- Standards of innovative programs as guides for replication.
- Readiness of apex agencies to view and review innovations.
- ❑ ***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 participation.¹⁹

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 Education²⁰

INTEGRATING TEACHER EDUCATION IN HIGHER EDUCATION

❑ ***Strengthening University/ IASE Linkages***

1. Establish Schools of Education (SoE) in select Universities to institute linkages between universities, teacher education institutions and schools
2. Introduce four year integrated programmes of elementary teacher education in SoEs
3. Introduce two-year programme of secondary teacher education in SoEs
4. Design post-graduate specialisations in curriculum and pedagogic studies, school planning, finance and management

¹⁹ Varshney, B. Innovative Practices In Teacher Education. Retrieved On: August 3, 2015, from <http://www.iiste.org/Journals/index.php/JEP/article/viewFile/11600/11943> @ 12:47PM

²⁰ Supra 1

5. Develop academic resources for teacher education, including multi-media digital resources; conceptual reading materials for school teachers
- ❑ ***Scheme for Establishing Schools of Education in Select Central and State Universities***
1. Identify 40 University Departments based in Central Universities, selected State Universities, Deemed Universities and other Centres of Higher Education, including the Regional Colleges of Education of the NCERT to establish Schools of Education
 2. Schools of Education are envisaged to include several units/centres that would undertake in-depth work in Curriculum Studies, Pedagogic Studies, Assessment and Evaluation that have remained neglected in teacher and school education
- ❑ ***Centre for Pre-service Teacher Education***
1. Undergraduate four year integrated programme of Elementary Teacher Education (BEIEd) as per the framework and norms notified by the NCTE with an intake of 250 students per year (in-take will vary as per the needs of each state)
 2. Two year BEd programme of Secondary Teacher Education, including a 6-8 months placement in schools during internship with an in-take of 250 students per year
 3. Undergraduate four year integrated programme of EEEEC
- ❑ ***Centre for Curriculum Research, Policy and Educational Development***
1. Undertake research in critical areas such as: tracing the educational divide: caste, class, gender and identity; gender differentiation and educational aspirations; social and political participation of women; social exclusion and education across cultures: cross cultural studies; sociological and anthropological perspectives on learning and diversity
 2. Public and private schooling: comparative historical research on universalisation in different countries and the role of public education
- ❑ ***Centre for Learning and Pedagogic Studies***
1. Systematic and large scale research on children's thinking and learning processes; their conceptual understanding in specific areas of social sciences, sciences, languages and mathematics
 2. Research and in-depth enquiry into teachers' conceptual levels in core disciplinary areas, their understanding of pedagogical content knowledge, assumptions about children, learning processes and strategies and notions of knowledge
 3. Research on construction and transmission of knowledge in different social systems; indigenous and unschooled knowledge; systems of apprenticeship; perspectives on curricula for out-of school adolescents and adults
- ❑ ***Centre for Assessment and Evaluation***
1. Systematic and large scale research on children's cognitive attainment levels, scholastic achievement levels and social and interpersonal capacities in the context of school inputs, school ethos and culture
 2. Developing appropriate assessment models and methodologies towards achieving quality improvement
 3. Developing evaluation models for assessing programmatic inputs and their impact on issues of quality improvement
- ❑ ***Centre for the Professional Development of Teacher Educators and Teacher Education Curricula***
1. Masters programme in Elementary Education with specialization in curriculum and pedagogic studies in mathematics education, social science and science education and assessment
 2. Masters programme in Secondary Education with specialization in curriculum and pedagogic studies in mathematics education, social science and science education and assessment
 3. Redesign the DIET DEd course to bring it into the frame suggested in the NCF and the new Teacher Education Curriculum Framework of the NCTE ²¹

CONCLUSION

“The ultimate value of education depends far more on the quality of intellectual and moral discipline and inspiration than it does on the particular course of study which is the vehicle through which this discipline and inspiration are imparted.”

- Dr. Karl Compton's²²

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. Indian Education is a state of flux. It is highly a state of flux in Indian Education. The national vision mission will definitely nurture innovations as evident through the emergence of National Curriculum for Teacher Education (NCTE, 2009) and Teacher Education: Reflections Towards Policy Formulation (NCTE, 2009). There are proposals for Integrated Innovative Teacher

²¹ Supra 9

²² Supra 9

Education Programs (Navrachna University, Vadodara, 2009 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 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.²³

Every community should have a talented and dedicated teacher in every classroom. We have enormous opportunity for ensuring teacher quality well into the 21st century if we recruit promising people into teaching and give them the highest quality preparation and training”.

-Clinton in his Call for Action for American Education in the 21st Century in 1996²⁴

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