

Innovations in Teacher Education

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Program Vision

Achieve significant improvement in the quality of education through effective TE institutions

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 standards.

Problem areas

- Lack of knowledge
- Lack of teaching skills
- poor teacher motivation
- Poor working conditions
- Limited opportunities for career advancement
- Under representation of the disadvantaged groups
- Limited use of ICT

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*.

THE RIGHT OF CHILDREN TO FREE AND COMPULSORY EDUCATION ACT, 2009

The RTE Act, 2009 inter alia provides that :

- The Central Government shall develop and enforce *standards for training of teachers*;
- Persons possessing *minimum qualifications*, as prescribed by an academic authority authorised by the Central Government, shall be eligible to be employed as teachers;
- Existing teachers not possessing such *prescribed qualifications to acquire that qualification within a period of 5 years*.
- *Pupil-Teacher Ratio* to be maintained in each school
- *Vacancy of a teacher* to not to exceed 10% of the sanctioned strength.

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
- 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 Internship

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.

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
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

- *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
- 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

- Undergraduate *four year integrated programme of Elementary Teacher Education (BElEd)* as per the framework and norms notified by the NCTE with an in-take of 250 students per year (in-take will vary as per the needs of each state)
- *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
- *Undergraduate four year integrated programme of EEEEC*

Centre for Curriculum Research, Policy and Educational Development

- ***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
- ***Public and private schooling: comparative historical research*** on universalisation in different countries and the role of public education

Centre for Learning and Pedagogic Studies

- 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
- 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
- *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

- **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**
- ***Developing appropriate assessment models and methodologies towards achieving quality improvement***
- **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

- Masters programme in Elementary Education with specialization in curriculum and pedagogic studies in mathematics education, social science and science education and assessment
- Masters programme in Secondary Education with specialization in curriculum and pedagogic studies in mathematics education, social science and science education and assessment
- 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 (THIS has been achieved through NCFTE, 2009)

Design and Structure of the Scheme

- One **Inter-university Centre** at the National level
- Forty University-based **Schools of Education** in select states
- Four regional **Centres of Educational Management** in the IIMs at Ahmedabad, Calcutta and Bangalore and NUEPA
- Establishing **Centres of Excellence in Science and Mathematics Education** in lead national level institutions such as IISc, Homi Babha Centre and TIFR.

Review of the TE scheme

Main considerations

- *Meet the exceptional challenges for the Teacher Education system arising from the massive spatial and numerical expansion* of schooling facilities and the corresponding increase in the demand for teachers.
- To *integrate teacher education with overall education development* in the States in keeping with the mandate of RTE;
- The need for expansion of capacity of teacher education institutions, especially in some of the deficit States of *East and North-Eastern Region*;
- Address the problem of large number of *untrained teachers*
- Expanding institutional capacity to provide in-service *training for secondary school teachers* in light of the Rashtriya Madhyamik Shiksha Abhiyan;
- To *link elementary teacher education with the higher education system*
- Need for a comprehensive *monitoring system*

Trained teachers # TE Capacity

Low % untrained teachers; adequate TE capacity (A)	High % untrained teachers; modest TE capacity (B)	High % untrained teachers; inadequate TE capacity (C)
Andhra (9.5%)	Arunachal (75.5%)	Assam (61.3%)
Delhi (1.0%)	Manipur (50.6%)	Bihar (50.9%)
Gujarat (0.5%)	Meghalaya (69.7%)	Chhattisgarh (31.4%)
Haryana (2.7%)	Mizoram (30.0%)	J&K (45.5%)
Himachal (5.2%)	Nagaland (72.3%)	Jharkhand (36.1%)
Karnataka (2.0%)	Sikkim (53.9%)	Orissa (17.8%)
Kerala (1.2%)	Tripura (57.0%)	Uttar Pradesh (27.6%)
MP (13.9%)	Teacher requirement	West Bengal (34.2%)
Maharashtra (0.7%)	<ul style="list-style-type: none"> ■ Category A: 1.73 lakh new + 1.17 lakh untrained ■ Category B: 0 new + 0.23 lakh untrained ■ Category C: 3.55 lakh new + 5.29 lakh untrained <p>Large intra-state, rural-urban variations</p>	
Punjab (3.2%)		
Rajasthan (6.5%)		
Tamil Nadu (0.7%)		
Uttarakhand (8.2%)		

Component	XII Plan	
	Amount in crores	% age
SCERTs to meet the mandate of RTE	305.44	4.38
IASEs strengthen existing 32; Upgrade departments of education	261.00	3.75
CTEs strengthen 104; upgrade new	464.00	6.67
DIETs 571 to 626	4,253.30	61.09
BITEs 196 in SC/ST/Minority districts	1,474.20	21.18
Professional development of teacher educators in 50 Lead Institutions	10.00	0.14
Technology in Teacher Education	118.77	1.70
Integrating elementary TE with higher education	62.50	0.89
Preparation of teacher educators	12.25	0.18
TOTAL	6,961.46	100.00

Other Inputs

Establishing BITEs

Professional Development of Teacher Educators

Technology in Teacher Education – web enabled learning

Public-Private Partnership (PPP) in Teacher Education

Reforming NCTE

Accreditation

Monitoring Mechanisms

ICT for Teacher Education

- **Vision** : to create ICT empowered teachers
- **Strategy** : Transform TEIs to be responsive to technology and its use in the training programmes
- Create an ICT based on-demand teacher support system, including modular self-learning modules
- Establish ***Centre for Research on Intelligent Teaching Systems***
 - inter-disciplinary centre between education, pedagogy and cognitive sciences researchers on one hand and computer science/artificial intelligence researchers on the other
 - To undertake research and build intelligent teaching systems
- Initiatives for capacity building
 - PPP courses to offer ICT skills to teachers
 - Creation of video banks, question banks, etc
 - TEIs to have defined internet and ICT requirements and internet access

Outcomes of the Project

- Numerical expansion of teacher education institutions,
- Greater support for elementary and secondary school teachers,
- Provide opportunities for professional development of teacher educators,
- Allow good performing non-State entities to supplement Government's efforts,
- Enable SCERTs to effectively perform their roles as academic authority under the RTE Act and as the State nodal agency on teacher education and
- Integrate elementary teacher education with the higher education system.
- Improve Learning Outcomes

Ultimate value of education

The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires.

William Arthur Ward

“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's