

### Reforming Teacher Education

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#### Background

The need to reform teacher education in India has been expressed in various commissions and committees on 'Teacher Education' but very few concrete steps have been taken during the past fifty years. Let us examine what various commissions and committees say about teacher education reforms. The Kothari Commission (1964-66) noted that there is a need to bring teacher education into the mainstream of the academic life of universities on the one hand and of school life and educational development on the other. The Commission recommended the introduction of "integrated courses of general and professional education in universities with greater scope for self-study and discussion and a comprehensive programme of internship." The Chattopadhyay Committee (1983-85) reiterated the concurrent model of teacher education that is, general and professional education to be pursued concurrently.

The Commission recommended that the length of these concurrent courses following the completion of Class XII be five years. Both the Kothari Commission and Chattopadhyay Committee recommend concurrent programmes for teacher education and the placing of these programmes in universities.

*The National Policy on Education (NPE-1986-92)* emphasised the improving of quality of teacher education. The policy recognised that, "...teachers should have the freedom to innovate, to devise appropriate methods of communication and activities relevant to the needs of and capabilities of and the concerns of the community." *The National Policy on Education (1986)* recommends improvement in quality of teacher education by the setting up of quality teacher education institutions at district and state levels. The policy recommends, "District Institutes of Education and Training (DIETs) will

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be established with the capability to organise pre-service and in-service courses for elementary school teachers and for the personnel working in non-formal and adult education. As DIETs get established, sub-standard institutions will be phased out. Selected secondary teacher training colleges will be upgraded to complement the work of State Councils of Educational Research and Training (SCERTs). The National Council of Teacher Education will be provided the necessary resources and capability to accredit institutions of teacher-education and provide guidance regarding curricula and methods. Networking arrangements will be created between institutions of teacher education and university departments of education”.

The *National Curriculum Framework* (NCF, 2005) focuses on improving the quality of teacher education by bringing about changes in the existing methods of teaching-learning and recommends a pedagogical shift from teacher centered to learner

centered; a curricular shift from disciplinary to multidisciplinary focus, and assessment changes from short, few appraisals to multifarious, continuous appraisals. The *NCF-2005* views learning as an active process where learners construct their own knowledge based on their experiences and prior knowledge in the social and cultural context of their situations.

### **Reforming Teacher Education**

On the basis of recommendations of various committees and commissions, and interactions with teachers and teacher educators, teacher education reforms with proper planning, a vision for teaching, and redesigning curriculum and assessment strategies, are urgently required.

### **Planning Teacher Education Programmes**

Teacher Education Programmes prepare teachers to teach in our schools. It is, therefore, necessary to consider school structure and curriculum for planning teacher education programmes.

### **School Structure and Curriculum**

<i>School Stage</i>	<i>Classes</i>	<i>Curricular Areas</i>
Preschool	Nursery, K.G.	Development through play, arts (drawing, dance, singing etc.)
Elementary		
• Primary	I-V	Language(s), Mathematics, Environmental Studies, Arts Education, Physical and Health Education
• Upper primary	VI-VIII	Language(s), Mathematics, Science, Social Science, Arts Education, Physical and Health Education
Secondary	IX-X	Language(s), Mathematics, Science, Social Science, Arts Education, Physical and Health Education

Sr. Secondary	XI-XII	Different Streams such as Science, Arts and Humanities, Commerce etc. Science stream has subjects of Physics, Chemistry, Biology, Mathematics, Language.
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### ***Types of Teacher Education Programmes***

District Institutes of Education (DIETs) offer two years Diploma in Elementary Education (D.El.Ed.) that prepares teachers to teach Classes I-VIII. Students with Senior School certificate or higher secondary qualification are eligible for admission to this diploma.

Delhi University offers four years Bachelor of Elementary Education (B.El.Ed.) degree course that prepares teachers to teach Classes I-VIII. Students with Senior School certificate or higher secondary qualification are eligible for this degree course. NCERT is developing a new degree course of four years that will prepare teachers for preschool and primary stage.

The general perception in primary schools is that B.El.Ed. degree holders are better teachers compared to diploma (D.El.Ed.) holders. In B.El.Ed. course, students revisit school curriculum and also learn content of higher level (degree level). However, many universities do not recognise B.El.Ed. course as equivalent to their B.Sc. or B.A. courses for admission to post graduate courses. For this reason of non-equivalence, there were not many takers of B.El.Ed. course when RIE, Mysore started this course.

Bachelor of Education (B.Ed.) programme offered by most teacher training institutes prepares teachers to teach Classes VI-XII. Graduates and Post Graduates are eligible for this course. Teachers with B.Sc. B.Ed. or B.A.Ed. qualifications are employed as (Trained Graduate Teachers) to teach Class VI-X and Teachers with M.Sc. B.Ed. and M.A. B.Ed. are employed as (Post Graduate Teachers) to teach Classes XI and XII. NCERT offers an integrated course of four years B.Sc. B.Ed. and B.A. B.Ed. that prepares teachers to teach Classes VI-X.

### ***Recruitment of Teachers at the Elementary Stage***

Teachers for the Elementary stage are recruited as Primary Teachers (PRTs) and Trained Graduate Teachers (TGTs). The primary teachers are required to teach all the subjects to Classes I-V. For upper primary stage (Classes VI-VIII), subject specific teachers are recruited such as Science Teacher (TGT Science), Mathematics Teacher (TGT Mathematics), English teacher (TGT English) and so on. Diploma holders (D.El.Ed.) and B.El.Ed. degree holders are both employed as Primary Teachers (PRTs). Chandigarh has started to pay TGT scale to B.El.Ed. degree holders teaching Classes VI-VIII. In general, the eligibility condition for TGTs is graduation in concerned

subject and B.Ed. B.Sc B.Ed. from both consecutive and concurrent courses are treated as equivalent and employed as TGTs.

### ***What are the issues in planning teacher education programmes?***

- The anomaly in school structure and curriculum, and teacher education programmes needs to be addressed.
- The anomaly in teacher preparation and recruitment needs to be addressed.
- *NCF-2005, NCFTE-2009* and scheme of restructuring teacher education programmes recommend that all teacher education programmes should be with the universities with a minimum of graduation degree. What is the plan and strategy for bringing elementary teacher education programmes in the main stream academic life of universities?
- NCTE recommended increasing the duration of B.Ed. course to 2 years. Will this require increase in duration of integrated four years courses, B.Sc B.Ed. and B.A.B.Ed. also?
- Should undergraduate colleges with a department of Education be encouraged to start integrated B.Sc B.Ed. and B.A. B.Ed. courses? There is criticism that teacher training colleges work in isolation and that better co-ordination between subject teachers and pedagogy teachers is required.

### ***Restructuring teacher education programmes***

There should be three kinds of courses:

1. **Preschool and Primary teachers**  
This can bring in continuity from preschool to primary and can also meet the system's need of trained preschool teachers. At present preschool teacher training is mainly with the private sector.
2. **Upper primary and secondary teachers (Classes VI-X)**  
This is the present practice and is justified because subject specific teachers are required at these stages. The curricular areas at upper primary and secondary stage are same and there is continuity. Moreover, the pedagogy of primary and upper primary is different.
3. **Senior Secondary (Class XI-XII).**  
**Vision for teaching:** After having discussed about the structure of teacher education programmes, next a vision for teaching needs to be developed so that curriculum and assessment procedures can be designed to realise this vision. Vision indicates a philosophy and approaches to teaching. A comprehensive philosophy or body of theoretical knowledge is essential for effective teaching. The vision should also reflect the image of practice and the commitment of teachers. Teachers should be aware of the full range of goals and processes of teaching. The vision of teaching presented in *NCF-2005* suggests the following principles:

- Teacher creates learner-centered and inclusive classroom
- Uses learner-centered teaching-learning process where child is the constructor of her own knowledge and teacher is a facilitator in the process of learning
- Gives primacy to the child's experiences and voices
- Relates learning to the social and cultural context of the learners and makes learning relevant for children
- Ensures that learning shifts away from rote methods
- Connects knowledge to life outside school
- Provides enriching curriculum for all round development of children rather than remaining textbook centric.
- Makes Assessment an integral part of the teaching-learning process.

This vision indicates a philosophical change. Traditional methods consider knowledge as “fixed”

which can be transmitted from teacher to the learner. The new vision views knowledge as evolving and incomplete. The learners learn only when they are active participants in the process of knowledge construction. The teacher is merely a facilitator in the process of learning and role of teacher is to provide learning experiences and learning situations to the learners. Learners construct knowledge using their prior learning and the experiences in the social and cultural context in which they are situated.

This changing perception about learner, learning and teaching is presented in the following table.

### **Changing School Context**

The vision also reflects the changing social and political context. RTE Act, 2009 makes ‘free and compulsory education’ a fundamental right for all children in the age group of 6-14 years. With implementation of RTE Act, 2009, neighbourhood schools

### **Changing Perception about Learner, Learning and Teaching**

<i>From Behaviourist</i>	<i>To Constructivist</i>
Learning is a passive receptive process.	Learning is an active meaning making process required to solve meaningful problems.
Teacher transmits knowledge and skills to passive learners.	Teacher provides children opportunities/ learning experiences to construct knowledge.
Learner is a passive receiver of knowledge.	Learner selects and transforms knowledge, constructs hypothesis and makes choices.

Teacher transfers knowledge that she has acquired, to the learner. Learners' beliefs and learning dispositions are generally not taken into consideration.	Teacher uses learners' existing knowledge, beliefs, attitudes and cognitive predisposition as resource(s).
Learning implies change in behaviour.	Learning implies reorganisation of prior conceptual schemes.
Learning depends on teaching and systematic reinforcement of correct behaviour.	Knowledge is constructed gradually through experience, interaction and adult support.
Teacher addresses specific objectives or learning outcomes.	Teacher addresses the process of learning and development of thinking.
Draws directly on existing subject knowledge in a logical, linear manner.	Uses direct experience and allows children to explore in their own way at their own pace.
Difficult to adapt structure of subject matter to varied pupil needs.	Anticipates individual differences and responsible autonomy from children.
Teacher follows rigid lesson plans.	Flexible lesson plan that develops on pupils' responses.
Teacher evaluates learner's achievement using norm-referenced standardised tests.	Assessment is an integral part of teaching-learning process. Teacher and pupil both assess learning progress with the help of student's record of work.
Evaluates students' responses as 'right or wrong'.	Accepts students' responses as alternate ways of thinking.
Stresses mastery of small bits of knowledge.	Takes 'holistic' view of knowledge.

will have children from all sections of the society– middle and poor class; socially disadvantaged groups–SC/ST, girls and ethnic minorities. Also the first generation school goers have just begun going to school– a phenomenon that was not there earlier. RTE Act also suggests that a child can take entry in the school at any point of time in an academic year. In this scenario, children in the same class will have different prior learning levels/experiences. The new

challenge for teachers would be to teach in inclusive classrooms with a heterogeneous class setting. This requires a shift from 'one method for all' to a variety of learning situations for diverse learners. In the changed situation, teachers will require competence and capabilities to develop a variety of learning experiences/ situations to suit diverse learners. Similarly, a flexible curriculum to meet the needs of diverse learners would be required, that is, a shift from

‘rigid content or teacher-centered’ to ‘flexible, contextualised, learner-centered’ curriculum according to needs of individual learners. Teachers will require capabilities for curricular adaptation according to the needs of each individual child. Another challenge for teachers will be to teach in multilingual classrooms. As per RTE Act, the medium of instructions, shall, as far as practicable, be in the child’s mother tongue. This has implications for preparing teachers to teach in multilingual situations.

***What must a teacher know and do in the changed scenario?***

- Cares for children, and love to be with them.
- Understands children within social, cultural and political contexts.
- Designs activities/learning tasks that will both engage and challenge all learners in a heterogeneous setting.
- Creates enabling learning environment.
- Analyses curriculum and participates in curriculum development process.
- Assesses students’ achievement in ways that move learning forward.
- Works effectively with diverse others.
- Inquires into her own teaching and learning. Questions old assumptions.
- Views learning as a search for meaning out of personal experience,

and knowledge generation as a continuously evolving process of reflective learning.

- Views knowledge not as an external reality embedded in textbooks, but as constructed in the shared context of teaching-learning and personal experience.

***Designing Teacher Education Curriculum***

A close examination of D.El.Ed. and B.Ed. curriculum of different states reveals that there is hardly any difference between the two. Further the syllabus of D.El.Ed. and B.Ed. (in many institutions/universities) has not been changed for past several decades. The theory papers include Philosophy of Education, Psychology of Education, and Teaching of various curricular areas. In the ‘Philosophy of Education’ paper the philosophies of John Dewey, Maria Montessori etc., are taught. In the ‘Psychology of Education’ paper learning theories (Thorndike, Skinner, Gestalt), theories of personality, growth and development, theories of intelligence etc., are taught. These theories are not perceived by teacher educators to be related to school practices. The papers on the teaching of various subjects discuss objectives and methods of teaching such as lecture-cum-demonstration or lecture-cum-discussion, project method, inductive and deductive methods etc. The methods are prescriptive where the teacher educator discusses the steps in each method, merits and limitations of the method. The

Psychology teacher teaches psychology and the methodology teacher teaches methods of teaching. The teacher educators do not relate 'philosophy and psychology of education' to the methods of teaching or other school practices. During teaching practice, rigid lesson plans are prepared and delivered. Pupil teachers in B.Ed. are required to deliver 40 lessons, twenty in each teaching subject. In D.El.Ed. the number of lessons per subject decreases further.

In view of the changing perception about learner, learning and teaching, the teacher education curriculum needs to be redesigned. In D.El.Ed. courses the focus should be on 'childhood-understanding childhood-growth and development, how children learn, life of children, their social and cultural context etc. Child-centered pedagogy, assessment and child, friendly schools should be the focus. There is a need to integrate theory and practice. The changing school context with heterogeneous class setting, first generation learners and multilingual classrooms, poses new challenges to the teacher.

The Teacher Education curriculum proposed by NCTE emphasises understanding childhood, social and cultural context of learners and relating school education to lives of children.

#### **Recommendations of NCFTE-2009**

- Pre-service teacher education programmes should provide

sustained engagement with children in school situations, experiences of teaching children and observing them, and regular teachers in classrooms.

- Student-teachers should be encouraged to keep observational records, to analyse their observations and interpret reality within varying theoretical and experiential frameworks.
- Theory and practice should be integrated in a manner that allows an easy flow of movement from experience to theory and theory to field experiences.
- Longer duration of internship (minimum of 12-20 weeks) – the intern would get the opportunity to learn to set realistic goals in term of children's learning, curricular content and pedagogic practice.

#### **Curricular Areas (Preschool and primary stage recommended by NCFTE-2009)**

Area 1: Foundations of Education

- I. Basics in Education: conceptual and contextual understanding of education; nature and forms of knowledge; aims and values in education.
- II. Childhood, child development, understanding children within social and cultural contexts.
- III. Learning and cognition.
- IV. Schooling, socialisation and identity.
- V. Vision of Indian education.



Area 2: Curriculum and pedagogical theory (What to teach; how to teach and how to assess). In this paper child centered curriculum and pedagogies must be emphasised.

- Pedagogy of Language(s).
- Pedagogy of Mathematics.
- Environmental Studies.
- Pedagogy of Arts and Aesthetics.
- Pedagogy of Health and Physical Education.

Area 3: Making teachers culturally sensitive and socially responsible

- Understanding and appreciation of cultural diversities of marginalised communities (SC/ST).
- Addressing the diverse educational needs of children, particularly first generation school-goers.
- Developing sensitivity towards gender issues.
- Developing the pedagogical skills required in inclusive classrooms (special needs children).
- Understanding and appreciation of 'Education for Peace'.
- Developing sensitivity towards environmental issues (conservation and regeneration).

Area 4: Experiences for Teacher Enrichment

- Strengthening Language Proficiency.
- Use of Information and Communication Technologies for Effective Learning.
- Health and Well-being (through Yoga).
- Arts and Aesthetics.

- Exploring Library and other Learning Resources.

*Internship:* Internship should be of longer duration, 12-20 weeks.

There is a need to change the present practice of training teachers to prepare and deliver rigid lesson plans in standardised formats based on textbooks as 'given'. Instead of being provided training to teaching through a set of traditional methods, pupil teachers should be allowed to examine and reflect on their own experiences and practices as part of classroom discourse and enquiry. Innovative teaching strategies by pupil teachers should be encouraged.

### ***What kind of pedagogical changes are required in Teacher Education***

In teacher education programmes too, the role of teacher educator is that of a facilitator. The teacher educators need to design learning experiences and situations. Pupil-teachers must reflect upon the existing practices and evolve their own strategies based on their school experiences. Instead of using prescribed methods step by step, they need to analyse students' responses and their lessons should build on these responses.

Pupil-teachers must be provided opportunities to share what they have learned so that knowledge is seen as something constructed by themselves rather than something coming to them from outside. Pupil-teachers

must learn how to provide the very opportunities to their own students so that they too would learn how to identify and solve authentic problems, designing solutions, and viewing themselves as active producers of knowledge.

Pupil-teachers should be provided opportunities to explore authentic problems rather than the mastery of de-contextualised content and skills. Learning needs to be contextualised by linking theory and practice where the aim is to build reflective practitioners. To function as facilitators, teacher educators should have good understanding of subject and also the capacity to make subject accessible to diverse learners. Teacher-educators must relate content to real life experiences of pupil-teachers and the school context. Content must be seen from learners' perspective. School practice needs to be the core of teachers' professional preparation. Teacher-educators should also teach in schools at least 12 hours per year to understand what works and what does not work. The methods should not be prescriptive, taught in a theoretical manner. In-service teachers, pupil-teachers and teacher educators should all work as a team learning from each other and sharing their experiences.

### ***Assessment in Teacher Education***

When teaching methods change, assessment procedures must change accordingly. Assessment is an integral

part of teaching-learning process. The purpose of assessment is to provide constructive feedback to pupil-teachers. During school experience programme, pupil-teachers should develop reflective diaries and use these reflections to develop their ideas. Record of pupil teacher's work including reflective diaries should be considered for assessment. The assessment needs to be evidence based. Qualitative indicators specific to each area of assessment need to be drawn up. The tools for assessment may include:

- Pupil-teachers' record of observations, field notes, reflective diaries.
- Teaching-learning activities, materials and resources developed by pupil-teachers.
- Observation schedule for classroom interaction, communication skills, ability to engage children, time management.
- Participation in discussions, analysis and reflections.
- Pupil-teachers' portfolios.
- Teacher educators' record of observations.
- Assignments, projects, journal of reflections, action research reports.

The assessment may be in terms of qualitative remarks. Constructive feedback should be provided to the pupil-teachers. Teacher educators should use feedback from assessment to improve their own teaching-learning. The ultimate purpose of assessment is to improve teaching-learning.

Learning is a continuous lifelong-process. The teacher educators and teachers must continue to learn. A good teacher is one who is always learning.

A reform in teacher education is the key element for improving quality of school learning and enhancing learning achievement of learners.



Educate her, as She will Spread the Light of Knowledge