

National Curriculum Framework for Teacher Education 2009

(Draft for Discussion)

This draft is for discussion and is being uploaded on the website of the NCTE (www.ncte-india.org) with the hope that all concerned will spare their valuable time in going through this document and hopefully they would enrich the NCTE with their inputs so that a final version of the framework is evolved for a wider national debate on teacher education. The comments may be sent to the NCTE by the last week of September, 2009, may be electronically on the NCTE email (cp@ncte-india.org).



**National Council for Teacher Education
New Delhi**

PREFACE

Teacher education and school education have a symbiotic relationship. Developments in both these sectors mutually reinforce the concerns necessary for the qualitative improvement of the entire spectrum of education. It was against this backdrop that the NCTE undertook a major exercise of developing a new National Curriculum Framework for Teacher Education which is both contextual and in tune with the emerging concerns and imperatives of the fast changing canvas of education both nationally and globally.

While undertaking this exercise, the NCTE had the benefit of reviewing similar exercises attempted in this area before, namely, the curriculum framework developed by the non-statutory NCTE in 1978, a revised version of this framework developed by the NCERT in 1988, the first curriculum framework for quality teacher education by the statutory NCTE in 1998, an independent exercise in evolving a teacher education curriculum framework by the NCERT in 2005 and a joint curriculum framework brought out by NCTE and NCERT in 2006.

Keeping in view the outcomes reflected in the documents arising out of the above efforts at curriculum renovation, the NCTE set up an expert committee consisting of Prof. C.L. Anand (Chairman), Prof. S.V.S. Chaudhary, Prof. C. Seshadri, Prof. R.S. Khan, Prof. Raja Ganeshan, Prof. V.K. Sabharwal and Prof. L.C. Singh to make a new curriculum framework in consonance with the changes that have taken place in different spheres of knowledge. This Committee produced a draft framework which was discussed with the concerned stake holders in two regional consultative meets held at Udaipur and Hyderabad in which the Vice-Chancellors of various Universities, Deans of the Faculties of Education of some Universities, Directors of State Councils of Educational Research and Training (SCERTs), Principals of District Institutes of Education and Training (DIETs), faculty of Regional Institutes of Education (RIEs) of the NCERT, teachers, teacher educators, senior staff from the State Governments and other experts participated.

The NCTE has been conscious of the fact that such a document has important futuristic implications for teacher education. It was therefore thought necessary that this document was subjected to further elaborate discussion on the nature of issues which inform teacher education. In particular, the National Curriculum Framework, 2005 brought out by the NCERT as well as implications of the Right to Education Act, 2009 passed by the Parliament dominated the thinking in the NCERT towards revisiting teacher education.

To achieve this objective the NCTE constituted another group of experts involving Prof. C. Seshadri (Chairman), Prof. A.K. Sharma, Prof. Shyam B. Menon, Prof. Poonam Batra and Ms. Anjali Nornha as its members. The present draft has eloquently brought out a new vision of teacher education which will receive the attention of the experts in the field and will motivate them to give their comments for its further enrichment.

In totality, therefore, the exercise of evolving a new draft National Curriculum Framework for Teacher Education incorporates the work and long standing experience of well-known educationists and experts in teacher education whose names I am very happy to put on record in this Preface.

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Prof. Mohd. Akhtar Siddiqui
Chairperson

31st August, 2009

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Chapter 1

CONTEXT, CONCERNS AND VISION OF TEACHER EDUCATION

1.1 Introduction

India has made considerable progress in school education since independence with reference to overall literacy, infrastructure and universal access and enrolment in schools. Two major developments in the recent years form the background to the present reform in teacher education - the political recognition of Universalization of Elementary Education (UEE) as a legitimate demand and the state commitment towards UEE in the form of 86th Amendment, 2002 which has led to the Right to Education Bill, 2008 and the National Curriculum Framework (NCF) for School Education, 2005. The Bill has since been passed by the Parliament and the Right to Education Act has come into being making it mandatory for the state to provide free and compulsory education to almost 20 crore children in the 6-14 age group till class 8. The Right to Education Act mandates a schedule for the functioning of schools which includes a teacher: student ratio of 1:30 till a student population of 200 students at the Primary Stage. This would increase the demand for qualified elementary school teachers many times. The country has to address the need of supplying well qualified and professionally trained teachers in larger numbers in the coming years.

The NCF 2005 places different demands and expectations on the teacher, which need to be addressed by both initial and continuing teacher education. The importance of competent teachers to the nation's school system can in no way be overemphasized. It is well known that the quality and extent of learner achievement are determined primarily by teacher competence, sensitivity and teacher motivation. It is common knowledge that the academic and professional standards of teachers constitute a critical component of the essential learning conditions for achieving the educational goals. The length of academic preparation, the level and quality of subject matter knowledge, the repertoire of pedagogical skills teachers possess to meet the needs of diverse learning situations, the degree of commitment to the profession, sensitivity to contemporary issues and problems and the level of motivation critically influence the quality of curriculum transaction in classrooms and thereby pupil learning and the larger social transformation.

Teacher quality is a function of several factors: teacher's status, remuneration and conditions of work, teacher's academic and professional education. The teacher education system through its initial and continuing professional development programmes is expected to ensure adequate supply of professionally competent teachers to run the nation's schools. Initial teacher education, especially, has a major part to play in the making of a teacher. It marks the initiation of the novice entrant to the calling and as such has tremendous potential to imbue the would-be teacher with proper motivation, knowledge, skills and attitudes. One may say, the bottom line of teacher education is the quality of teacher performance in terms of its impact on the learner and indirectly on larger social transformation as already stated.

1.2 The Changing School Context and its Demands

A teacher functions within the broader framework of the school education system – its goals, curricula, materials, methods and expectations from the teacher. A teacher education curriculum framework needs to be in consonance with the curriculum framework for school education, and a teacher needs to be prepared in relation to the needs and demands arising in the school context. As such, it needs to engage with the questions of the learner, the learning process and the content and pedagogy of educating teachers. The expectations of the school system from a teacher change from time to time, responding to the broader social, economic and political changes taking place in the society. The issue of teacher education accordingly has to be discussed in the much wider and changing context and demands of school education.

School education has seen significant development over the decades since independence. According to Government estimates (Selected Educational Statistics – 2004-2005 - Ministry of Human Resource Development(MHRD), New Delhi) while 82% of the 20 crore children of the 5-14 age group were in school as per enrolment figures, it is equally true that nearly 50% of these children are dropping out before completing class 8 (MHRD Annual Report, 2007-08). One finds the situation on the ground still ridden with difficulties. Regional, social, and gender disparities continue to pose new challenges. This reality increases the challenge that the prospective teacher will face in implementing the Right to Education Act.

The teacher must now be equipped not only to teach but also to understand her student and the community of parents so that children are regular in schools and learn. The Act mandates that the teacher would be responsible for enrolling all children seeking admission, refraining from inflicting corporal punishment, complete the given curriculum in the given time, assess students, hold parent meetings and orient them and as part of the school management committee, organise the overall running of the school.

In addition, the NCF 2005, requires a teacher to be a facilitator of children's learning in a manner that the child is helped to construct her knowledge. It also opens out possibilities for the teacher to participate in the construction of syllabus, textbooks and teaching learning materials. Such roles demand that teachers be equipped with a better understanding of curriculum, subject content and pedagogy on the one hand and community and school structures and management on the other.

The launch of the massive *Sarva Shiksha Abhiyan* (SSA) in 2002 and the recent financial commitment and education cess to augment the UEE mission have underscored the need to adequately prepare teachers to address the growing demand for quality education. A similar demand may arise in the context of the impending universalization of secondary education in the coming 5 to 10 years

The continued fragmentation of the school system poses, by far, the severest challenge to the national declaration of catering to the basic learning needs of all children in the 6-14 age group through the elementary education system in an inclusive setting. However increasing privatisation and differentiation of the schooling system have vitiated drastically the right to quality education for all children. In addition, the pressures of globalisation leading to commercialisation in all sectors including education and

increasing competition are forcing children into unprecedented situations that they have to cope with.

There is now public acknowledgement that the current system of schooling imposes a tremendous burden on children and they must be freed from it. The recommendations of the NCF 2005 on school curriculum are built on this plank. Educationists are of the view that the burden arises from treating knowledge as a 'given', an external reality existing outside the learner and embedded in textbooks. Knowledge is essentially a human construct, a continuously evolving process of reflective learning.

This view of education points to the need to take a fresh look at teacher preparation. Education is not a mechanical activity of information transmission and teachers are not information dispensers. Teachers need to be looked at as crucial mediating agents through whom curriculum is transacted. Textbooks by themselves do not help in developing knowledge and understanding. Learning is not confined to the four walls of the classroom. We need to connect knowledge to life outside the school and enrich the curriculum by making it less textbook-oriented.

1.3 Present Teacher Education Scenario

Unprecedented expansion of teacher education institutions and programmes during the past few years characterizes the teacher education scenario of today. With increasing school enrolments and the launch of pan-Indian primary education development programmes like Operation Blackboard (OB), (DPEP) and District Primary Education Programme. SSA to achieve UEE, there was a natural increase in demand for teachers. Added to this, the backlog of untrained teachers in the system and the essential requirement of pre-service teacher certification for appointment as a teacher led to mounting pressure on existing institutional capacity. The demand far exceeding supply, market forces have taken over causing unprecedented rise in the number of teacher education institutions in most parts of the country. The escalating demand for trained teachers and the belief that a training certificate acts as collateral against future unemployment has made teacher education a lucrative business proposition. It has also led to large scale mushrooming of substandard teacher education institutions.

From 3489 courses in 3199 institutions and an intake of 2,74,072 in 2004, the number's in December, 2008 swelled to a whopping 14,523 courses in 12,266 institutions with an intake of 10,73,661 at different levels, that is, pre-primary, elementary, secondary (face-to-face and distance modes), M.Ed (face-to-face and distance modes), M.Ed (part-time), C.P.Ed, B.P.Ed and M.P.Ed. This expansion has, naturally, taken a heavy toll on quality parameters like infrastructure, faculty learning resources and student profile.

Till January 2007, 31 Institute of Advanced Studies in Education (IASEs) and 104 Colleges of Teacher Education (CTEs) were sanctioned and all of these were functional. So far as the District Institute of Education and Training (DIETs) are concerned, for 599 districts in the country, 556 DIETs were sanctioned and of these 466 were functional. Thus as many as 90 DIETs were yet to become functional (*Working Group Report on Elementary Education and Literacy, XI Five Year Plan, Jan 2007, 187-190*). The main problem facing DIETs is non-availability of qualified faculty, presently the faculty appointed do not possess qualifications/experience in elementary teacher education. A good number of CTEs face faculty shortage, they spend more time on initial teacher

education, and research, development and innovative activities are yet to take concrete shape and library facilities appear weak. The same is the case with IASEs. The capacity of both CTEs and IASEs in performing their mandated roles has come under serious questioning.

The larger reality of school teaching not being a preferred option among students and the dilution of emphasis on public investment in initial teacher education since the 1990s has led to large scale recruitment of unqualified and under-qualified persons as para teachers in the formal school system. Para teachers pose a far more serious challenge to the institution of the professional teacher. An attitude of resignation towards initial teacher education and piecemeal in-service training courses have become an integral part of state provisioning for elementary education. This has led to further degradation of the status of school teachers and diluted the identity of teacher as a professional. Major initiatives during the mid-1990s were focused on in-service training of teachers and this has accentuated the divide between pre-service and in-service teacher education. School teachers continue to be isolated from centres of higher learning and their professional development needs remain unaddressed.

On the positive side, with a view to achieving coordinated development of teacher education, the National Council for Teacher Education (NCTE) took up a number of initiatives during the last decade. It joined hands with the National Assessment and Accreditation Council (NAAC) to foster quality assurance and sustenance and with Distance Education Council (DEC) to ensure integrated development of in-service teacher education under the Open and Distance Learning (ODL) mode. It also entered into collaboration with the Rehabilitation Council of India in 2002 and later, in 2005, to develop curriculum on inclusive education and make it a part of general teacher education programmes.

The National Knowledge Commission (NKC) has observed that teachers are the single most important element of the school system, and the country is already facing a severe shortage of qualified and motivated school teachers at different levels. It is urgent to restore the dignity of school teaching as a profession and provide more incentives for qualified and committed teachers. Non-teaching official duties such as election-related responsibilities should not be allowed to interfere with the teaching process. Forums that allow and encourage teachers to exchange ideas, information and experiences including a web-based portal should be developed. At the same time, there should be transparent systems for ensuring accountability of school teachers. As far as possible, teachers should be recruited to particular schools. The training of teachers is a major area of concern at present, since both pre-service and in-service training of school teachers is extremely inadequate and also poorly managed in most states. Pre-service training needs to be improved and differently regulated in both public and private institutions, while systems for in-service training require expansion and major reform that allows for greater flexibility.

1.4 Teacher Education Reform: Perspectives – Past and Present

At the heart of teacher education is the question ‘What value does teacher education add to the prospective teacher’s ability to face challenges of facilitating the development of critical and creative students and subsequently adults?’ Reform of teacher education has been one of the abiding concerns in the reports of major Education Commissions and

Committees on education. The Education Commission (1964-66) dwelt at length on various issues related to teacher education. It recommended professionalization of teacher education, development of integrated programmes, comprehensive colleges of education and internship. The National Commission on Teachers (1983-85) recommended five-year integrated courses and internship. The National Policy on Education (NPE) (1986) recommended the overhaul of teacher education to impart it a professional orientation and referred to the same concerns voiced by the earlier Committees. Its recommendations led to the launch of the Centrally Sponsored Scheme of Teacher Education incorporating the establishment of DIETs, CTEs and IASEs. The NPE Review Committee (1992) and the National Advisory Committee on Curriculum Load (1993) have also drawn attention to the need for qualitative reform of teacher education and suggested various measures. The Review Committee recommended adoption of the internship model for teacher education involving a brief theoretical orientation followed by a 3 to 5 year period of supervised teaching in a school under mentor teachers. The Advisory Committee in its report *Learning without burden* drew attention to the need for the involvement of teachers in curriculum and textbook preparation and training teachers in fostering learning through activity, discovery, observation and understanding. These policy recommendations have led to actions resulting in the development of National Curriculum Frameworks on Teacher Education and production of resource materials.

1.5 Urgency of Reforming Teacher Education

Teacher education as a whole needs urgent and comprehensive reform. There is a need to bring greater convergence between professional preparation and continuing professional development of teachers at all stages of schooling in terms of level, duration and structure. Considering the complexity and significance of teaching as a professional practice, it is imperative that the entire enterprise of teacher education should be raised to a university level and that the duration and rigour of programmes should be appropriately enhanced.

Both at the elementary and the secondary levels, the initial teacher preparation is fraught with a number of problems, some of them common and some specific to the stage.

1.5.1 Elementary Teacher Education

Initial training of elementary teachers continues to suffer from isolation, low profile and poor visibility in view of its being a non-degree programme administered by a government department as one among its other concerns. In professional discussions teacher education is viewed as a unitary undifferentiated category with B.Ed and D.Ed. providing the frame of reference. The special significance of initial primary teacher education (elementary education being a fundamental human right and its crucial significance to individual and national development) is overlooked and its concerns are subsumed under more general problems. The Curriculum Frameworks thus far developed provide guidelines that are too general and do not address the stage specific training needs of elementary teachers. The Curriculum Framework (1998) was indeed a welcome exception. It may be the first to have provided stage-specific guidelines. The *Curriculum Framework for Quality Teacher Education* (1998) and *Approach Paper for Elementary Teacher Education Curriculum Renewal in 2003* by the NCTE address these issues in greater detail. The establishment of DIETs has been the most

important development in bringing the issue of elementary teacher education to the national stage.

There is a grave need to upgrade initial teacher education by enhancing the entry qualification and duration of training and make it equivalent to a degree programme and vest the management and control of elementary teacher education in a professional body of university faculty status. This is necessary as the plus 2 entry level does not even equip prospective teachers with the basic knowledge of subjects to teach at the elementary level, particularly classes 3 to 8. Neither does the short duration of the course equip them with the necessary pedagogic knowledge for facilitating the learning of children, understanding their psycho social and learning needs. There are available a number of degree programs for the preparation of elementary teachers both within and outside the country which need to be looked at and adapted to Indian needs keeping the rigour of these programs intact. The Bachelor of Elementary Education (B.El.Ed.) program of the University of Delhi is a case in point.

Upgrading elementary teacher education calls for participatory curriculum planning involving all stakeholders, modular organization of curriculum in terms of critically engaging with theory and bringing practice within its perspective, greater curriculum time for skill learning and practice, a professional approach to training strategies and development of materials, and application of relevant alternatives, technological, curricular and organizational, in teacher education processes. For accomplishing all this, there is a need for a longer duration of time for the programme, either a four-year integrated model at the Bachelor's degree level or a two-year second Bachelor's degree model. A transition to the new models will need to be done within a definite time frame – say five years – keeping in mind the time required for preparation of teacher educators as well.. However, the present two year D.Ed. model after twelve years of schooling may continue in the interim attempting to intensify the programme with the elements mentioned above and making it as meaningful and relevant as possible.

Another instance of neglect of elementary teacher education is the non-recognition of the need for specially qualified teacher educators in elementary education. It has been taken for granted that the existing arrangements for teacher preparation at different stages would do as well for teacher educators too, B.Ed for elementary teacher educator and M.Ed for secondary teacher educator. The logic that seems to operate here is that one's higher position in the educational hierarchy would entitle one to train others working at the lower levels irrespective of whether one possessed the relevant skills. Other than the activity of teaching children in elementary school, all other functions related to this sector of education are attended to by people who have been trained for and taught only at secondary level due to lack of appropriately trained personnel in elementary education. The difficulty is exacerbated by the absence of degree and post degree programmes in primary / elementary teacher education. At present, elementary teacher educators in their bid to upgrade their professional qualifications pursue M.Ed. The IASE brief includes the training of elementary teacher educators which they do by running the M.Ed programme of the concerned university. But the present M.Ed cannot meet the requirements of elementary teacher training as it is based on only secondary education requirements.

Education as an area of interdisciplinary knowledge is not merely an application of a few core disciplines, but a praxis and a context where theories and practical wisdom are generated continuously. It is important to facilitate development of a discourse in education through more purposive and deliberate focus in creating explanatory terms and vocabulary. And this process has to inform and be informed by teacher education. Since traditionally, it was secondary teacher education institutions that developed into university departments of education, elementary education and early childhood education have been neglected as distinct areas of knowledge with their own distinct concerns, concepts and methodological perspectives. It is important to strengthen all areas within education as distinct but integrated discourses through research as well as through documenting praxis in school settings as well as in field-level educational initiatives. This scattered corpus of experience and knowledge needs to be brought together to evolve a coherent vocabulary, researched and documented knowledge base and informed perspectives for all areas of education as well as education in its entirety.

1.5.2 Secondary Teacher Education

There is also a need to critically review the secondary teacher education system. The one year second Bachelor's degree (B.Ed.) model seems to have outlived its relevance. With the proliferation of B.Ed. colleges, particularly with privatization and commercialization, B.Ed. programmes have become weak in both theory and practice. Even the few institutions which keep struggling to make this programme meaningful find it difficult to overcome the structural constraints that the short duration of the programme puts up. While a second Bachelor's degree model may still be relevant, it is imperative that this needs strengthening in terms of both intensity, rigour and duration. It is desirable within a finite time frame that the existing one-year second Bachelor's (B.Ed.) degree programme is structurally transformed to a two-year one, with deeper and more protracted engagement with school-based experience and reflective and critical engagement with theory. In the transitory phase, however, the existing one year programmes can work towards better utilization of the time available, greater emphasis on a school-based internship and emphasis on reflective practice based on perspectives on child, contemporary society, basic concepts of education and curricular and pedagogic alternatives.

1.6 Systemic Concerns in Teacher Education

Even more serious than proliferation of sub-standard institutions is the current state of teacher education programmes. The programmes have come under severe criticism for not addressing the needs of contemporary Indian schools and not preparing teachers who can impart quality education in schools. Their design and practice is based on certain assumptions which impede the progress of ideas and professional and personal growth of the teacher. They train teachers to adjust to a system in which education is seen as transmission of information. They take the school curriculum and text books as a 'given' and train teachers to adjust to the needs of the existing school system through fastidious planning of lessons in standardized formats and fulfilling the ritual of delivering the required number of

lessons. The NCF 2005 has described the current concerns of teacher education as follows:

- Experiences in the practice of teacher education indicate that knowledge is treated as ‘given’, embedded in the curriculum and accepted without question; there is no engagement with the curriculum. Curriculum, syllabi and textbooks are never critically examined by the student teacher or the regular teacher
- Language proficiency of the teacher needs to be enhanced, but existing programmes do not recognize the centrality of language in the curriculum
- Teacher education programmes provide little scope for student teachers to reflect on their experiences.
- Disciplinary knowledge is viewed as independent of professional training in pedagogy
- Repeated ‘practice’ in the teaching of a specified number of isolated lessons is considered a sufficient condition for professional development
- It is assumed that links between learning theories and models and teaching methods are automatically formed in the understanding developed by student teachers
- There is no opportunity for teachers to examine their own biases and beliefs and reflect on their own experiences as part of classroom discourse and enquiry
- Theory courses have no clear articulation with practical work and ground realities
- The evaluation system followed in teacher education programmes is too information-oriented, excessively quantitative and lacks comprehensiveness. Apart from conceptual and pedagogical aspects the programme needs to develop certain attitudes, dispositions, habits and interests in a teacher. The present evaluation protocol has no place for evaluating them.

The above observations provide distinct pointers for addressing issues on the different aspects of teacher education curriculum reform.

1.7 Contemporary Context and Concerns that need to Inform Teacher Education Reform:

1.7.1 Inclusive Education

We have seen two kinds of exclusion prevalent in schools because of the inadequate competence and sensitivity of the teacher in these areas. One is the exclusion of the child with disabilities of different kinds – the teacher does not understand their needs nor what s/he can do to make learning possible for them. The second and stronger exclusion is the social exclusion of children who come from socially and economically deprived backgrounds Scheduled Castes (SCs), Scheduled Tribes (STs) and from minority communities. There is a dire need to equip teachers to overcome their biases in these regards and positively handle these challenges.

Inclusive education refers to a philosophical position as well as an arrangement of institutional facilities and processes to ensure the compositeness of learning communities which includes in terms of access to and conditions of success in education for everybody including those in the margins, either with learning difficulties because of physical or mental disabilities or because of their social

position. This is to create an integrated school setting providing equal opportunities to children with special abilities, varied social backgrounds and diverse learning needs. The emphasis is on providing equal opportunities to all children. It is necessary that teachers who teach and manage the classroom are sensitized and made aware of the philosophy of inclusive education and oriented to the different kinds of adjustments that schools have to make in terms of infrastructure, curriculum, teaching methods and other school practices to relate teaching to the special needs of all learners.

The Persons with Disabilities (PWD) Act of 2005 provides for free and compulsory education up to the age of 18 years for all children with disabilities.

The education of socially and economically disadvantaged groups, especially the SCs, STs, and minorities has remained a primary national concern of education for several years. Though the literacy percentage among the SCs and STs has increased manifold, it is still much lower than the general category students. Teachers will have to be particularly equipped if the social deprivation has to be overcome through education.

The enrolment and retention of girls and therefore their participation has also remained behind those of boys. Special efforts are being made to improve this situation. Teachers need to be equipped to sensitively bring and include girls in the classroom transaction.

1.7.2 Perspectives for Equitable and Sustainable Development

In order to develop future citizens who promote equitable and sustainable development for all sections of society and respect for all, it is necessary that they be educated through perspectives of gender equity, perspectives that develop values for peace, respect the rights of all, and that respect and value work. In the present ecological crisis promoted by extremely commercialised and competitive lifestyles, children need to be educated to change their consumption patterns and the way they look at natural resources.

There is also an increasing violence and polarisation both within children and between them, that is being caused by increasing stress in society. Education has a crucial role to play in promoting values of peace based on equal respect of self and others. The NCF 2005 and subsequent development of syllabi and materials is attempting to do this as well.

For this teachers need to be equipped to understand these issues and incorporate them in their teaching. The new teacher education curriculum framework will need to integrate these perspectives in its formulation.

1.7.3 Role of Community Knowledge in education

It is important for the development of concepts in children as well as the application of school knowledge in real life that the formal knowledge is linked with community knowledge. This increases the relevance of education as well as the quality of learning. In addition, the perspective that informs the NCF 2005

promotes the inclusion of locally relevant content in the curriculum as well as pedagogy. This puts an added responsibility on the teacher for which s/he needs to be equipped, that is, selecting and organising learning content experiences from the community for the classroom.

We need to develop the capacity of teachers in identifying entry points in the curriculum and textual materials which call for contextualization and developing appropriate teaching-learning sequences and episodes based on identified local specifics. These specifics may include community knowledge and technology, local occupations both farm and non-farm, local folk culture including songs, festivals, fairs, games, etc. As the teachers will be developing the curriculum and materials informed by the perspectives enunciated above (gender, peace, sustainable development, etc.), they will also be learning through actual participation the skills of identifying and processing the specifics for purposes of meaningful curriculum transaction.

1.7.4 ICT in Schools and e learning

With the onset and proliferation of ((Information and Communication Technology) (ICT), there is a growing demand that it be included in school education. It has become more of a fashion statement to have computers or multimedia in schools, the result being that in spite of its potential to make learning liberative, its implementation is often not more than cosmetic. It is often also touted as a panacea for shortage of teachers. These are detrimental to the learning of the child. Teacher education needs to orient and sensitize the teacher to distinguish between developmentally appropriate and detrimental uses of ICT. It needs to also equip teachers with competence to use ICT for their own professional development.

1.8 The Present Document

The NCTE and the NCERT over the past few decades have addressed the review of teacher education curriculum in the light of changing educational scenario and brought out a series of frameworks. These frameworks provide guidelines on development of teacher education programmes incorporating current concerns as well as national and global developments. The pioneering effort of designing a curriculum framework for teacher education was made by the non-statutory NCTE, way back in 1978. This *Teacher Education Curriculum-A Framework (1978)* responded to the implications of the national educational policy and priorities as a result of the implementation of the Report of Education Commission (1964-66) and made recommendations for the restructuring of teacher education programmes and their content. This was reviewed in 1988. Subsequently, it was followed by the development of a model curriculum by the University Grants Commission (UGC) curriculum development centre in 1990. After the NCTE became a statutory body in 1995, it brought out *Curriculum Framework for Quality Teacher Education* in 1998. Another framework, *Teacher Education for Future* was brought out by the NCERT to support the NCF for school education (2000). Two attempts were made by the NCTE to develop draft curriculum framework (the first in 2005 and the second in 2006). The latter incorporated the substantial inputs provided by the NCERT in the context of the adoption of the NCF (2005) for school education. Two more draft frameworks, one in 2007 and the other in 2008 have since been added. For various reasons, related action on the ground in respect of these documents did not take place. The

present document represents a continuation of these curriculum renewal efforts. It has given due consideration to the earlier frameworks, particularly to the 2006 document, tried to consolidate the work that has been accomplished thus far and presents by and large an updated and upgraded version of a new National Curriculum Framework for teacher education (NCFTE).

1.9 Vision of Teacher and Teacher Education

As we engage in the act of envisioning the role of the teacher and the shape of teacher education unfolding in the coming years, it would do us well to take note of the movement of ideas, globally, that have led to current thinking on teacher education. While the search for a philosophy of teacher education that satisfies the needs of our times continues, we seem to be converging on certain broad principles that should inform the enterprise. First, our thinking on teacher education is *integrative* and *eclectic*. It is free from the hold of ‘schools’ of philosophy and psychology. We also do not think of teacher education as a prescriptive endeavour; we want it to be open and flexible. Our emphasis is on *changing contexts* and our aim to empower the teacher to relate himself/herself to them. Second modern teacher education functions under a global canvas created by the master concepts of ‘learning society’, ‘learning to learn’ and ‘inclusive education’. The concern is to make teacher education *liberal, humanistic* and responsive to the demands of *inclusive education*. The emphasis in teaching is not on didactic communication but on *non-didactic explorations*. Third, modern pedagogy derives its inspiration more from *sociological and anthropological insights* on education. There is increasing recognition of the worth and potential of *indigenous culture* as a source for rejuvenating teaching and learning. *Multi-cultural education* and *culture-specific pedagogy* is the current trend. Fourth, we acknowledge the existence of a *diversity of learning spaces and curriculum sites* (farm, workplace, home, community, and media) apart from the classroom. We also appreciate the diversity of learning styles that children exhibit and learning contexts in which teachers have to function – oversized classes, language, ethnic diversities, children suffering disadvantages of different kinds. Lastly, we have realized the tentative nature of the so-called knowledge base of teacher education and made *reflective practice* the central aim of teacher education. Pedagogical knowledge has to constantly undergo adaptation to meet the needs of diverse contexts through critical reflection by the teacher on his/her practices– teaching, evaluating and so on. Teacher education has to build the ability in the teacher to evolve one’s own knowledge to deal with different contexts based on understanding and analysis of experience.

Against this backdrop and keeping in view the vision of teacher education as articulated above, the following set of concluding statements relating to perception of teachers’ role, and philosophy, purpose and practice of teacher education can be made:

- Teachers should be prepared to care for children and love to be with them, love knowledge and be constantly learning, own responsibility towards society and work to build a better world, develop sensitivity to the problems of the learners, commitment to justice and zeal for social reconstruction;
- Teachers should change their perception of child as a receiver of knowledge and encourage its capacity to construct knowledge; they should ensure that learning shifts away from rote methods. Learning is to be viewed as a search for meaning

out of personal experiences and knowledge generation as a continuously evolving process of reflective learning;

- Teacher education should engage with theory along with field experiences to help trainees to view knowledge not as external to the learner but as something that is actively constructed during learning. Teacher education should integrate academic knowledge and professional learning into a meaningful whole;
- Teachers need to be trained in organizing learner-centred, activity based, participatory learning experiences – play, projects, discussion, dialogue, observation, visits, integrating academic learning with productive work;
- Teacher education should engage teachers with the curriculum, syllabi and textbooks to critically examine them rather than taking them as ‘given’ and accepted without question;
- Teacher education should provide opportunity to trainees for reflection and independent study without packing the training schedule with teacher-directed activities only;
- The programme should engage teachers with children in real contexts than teach them about children through theories. It should help them understand the psycho-social attributes and needs of learners, their special abilities and characteristics, their preferred mode of cognition, motivation and learning resulting from home and community socialization;
- The programme should help teachers or potential teachers to develop social sensitivity and consciousness and finer human sensibilities.
- We need to broaden the curriculum (both school and teacher education) to include different traditions of knowledge; train and educate teachers to connect school knowledge with community knowledge and life outside the school, and thereby enrich the curriculum so that it goes beyond the textbooks and contextualizes educational experiences
- We need to appreciate the potential of productive work and hands-on experience as a pedagogic medium both inside and outside the classroom; work is integral to the process of education;
- We need to re-conceptualize citizenship training in terms of human rights and approaches of critical pedagogy; emphasize environment and its protection, living in harmony within oneself and with natural and social environment; promote peace, democratic way of life, constitutional values of equality, justice, liberty, fraternity, secularism and caring values; and
- In view of the many sided objectives of teacher education the evaluation protocol should be comprehensive and provide due place for evaluation of attitudes, values, dispositions, habits and hobbies (in addition to the conceptual and pedagogical aspects) through appropriate quantitative as well as qualitative techniques.

1.10 Professionalization of Teacher Education

Teaching is a profession and teacher education is a process of professional preparation of teachers. Preparing one for a profession is an arduous task and it involves action from multiple fronts and perspectives. A profession is characterized by a sufficiently long period of academic training, an organized body of knowledge on which the undertaking is based, an appropriate duration of formal and rigorous professional training in tandem with practical experience in the field and a code of professional ethics that binds its members into a fraternity

When the profession concerned is teaching these dimensions acquire critical importance in view of several factors. There is, first of all, the traditional idealism, esteem, and importance attached to the role of the teacher and the very high societal expectations from the teacher. Teaching, essentially, is also a moral undertaking although information transmission dominates the teacher's work. Teachers are concerned in an important way with the total development of human beings – physical, intellectual, social, moral and spiritual. While the dimensions of teaching other than the informational and cognitive may have suffered neglect in modern times due to a variety of factors, one cannot deny that they constitute an integral part of the teacher's role and functions. The implication of this for teacher education programmes and institutions is that due emphasis should be given to developing in the teacher proper attitudes, values, and outlook apart from training one as a skilled crafts person. This aspect of the making of a teacher is acknowledged as a very important quality dimension of teacher education.

1.11 Preparing Teacher Educators

Teacher education, it may be seen, is a reflective undertaking that also issues forth in pedagogical prescriptions for carrying out teaching at the ground level. Being a meta-activity, it deals in showing how things are done at school and classroom levels, explaining the 'reason why' of things and the basic theory and principles behind classroom practices. These call for skills and understanding of a different kind in addition to the skills required for actual school teaching. The NCF-2005 position paper on teacher education has elaborated this point and has referred to andragogy (principles of adult learning) as the appropriate pedagogy for teacher education. The weakest aspect, perhaps, of teacher education is the absence of professional preparation of teacher educators and the issues related to this concern are discussed in Chapter 6.

1.12 Research and Innovation

There is a need to increase research that documents practices reflectively and analytically – whether it is of programs or of individual classrooms – so that it can be included in the body of knowledge available for study to student teachers. University departments and research institutions need to undertake such research.

In addition there is a need to innovate with different models of teacher education. Institutional capacity and capability to innovate and create are a pre-requisite for the pursuit of excellence. These are facilitated when the inputs to the institution are of high quality. In teacher education, the reality on the ground rarely reflects this. Curriculum innovation at the institutional level gets restricted to its transaction within the institution. At the state level, there is the trend of applying standard solutions and common strategies to the many problems of teacher education. The central admission procedure, common curriculum, centralized examination and evaluation system have stifled institutional initiatives in admission, curriculum design and evaluation and very little space is left for institutional self-expression. There is a need to facilitate a space for such innovations to take place so that policy can draw from them.

In spite of these constraining conditions, there have been and are a number of initiatives that can be drawn from. A case in point is the four-year integrated B.El.Ed programme for the preparation of elementary teachers offered by the Delhi University and NCERT's experiments with the four-year integrated programme leading to the degree of B.Sc.Ed,

two-year B.Ed programme and integrated M.Sc.Ed. programme Similar innovations are also being tried out in other institutions across the country.

Initiatives for continuing professional development include the University School Resource Network, (a multidisciplinary project involving multilevel institutions envisages forging academic connectivity between higher education and elementary education systems, which networks Jawaharlal Nehru University, Delhi University, Institute of Home Economics, Gargi College, DIET, Motibagh, Mirambika, Ankur and participating schools), Vidyankura a district level project in Karnataka, housed in National Institute of Advanced Studies, collaborative inservice and foundation programs by organisations like Eklavya, Digantar and Vidya Bhavan Society, Rishi Valley, Banasthali and Sri Aurobindo Education Centres, along with many others.

At the post graduate level, too, there is an attempt in elementary education leading to M.A (Elementary Education) launched by the Tata Institute of Social Sciences, Mumbai. This is a first of its kind, pan-Indian programme intervention in elementary education at the post-graduate stage. It is interdisciplinary, collaborative (the other organizations involved are: Homi Bhabha Centre for Science Education, Eklavya, Digantar and the Vidya Bhavan Society) and dual mode operation design (on-line learning and contact) makes it a bold and novel venture. Its twin objectives are to provide a firm disciplinary base to elementary education and train a range of professionals with different specializations - teachers, teacher educators, curriculum and textbook developers, educational planners, administrators and researchers.

1.13 Open and Distance Learning (ODL) in Teacher Education

Open Education as a concept, coupled with modalities associated with Distance Education does not stand as an exclusive transactional modality. There are several aspects of ODL which will get meaningfully translated only if the boundaries between direct human engagement and ODL tend to get diffused to the extent possible and perhaps desirable. A modular approach to the development of teacher education curriculum along with a focus on independent study and on-line offering involving interactive modes of learning and the consequent modification in the approaches to assessment and evaluation has indeed a potential to make education reach the unreached.

It is recognized that ODL can be strategically employed in continuing professional development of teachers particularly with a view to overcoming the barriers of distance and the immensity of the system, especially making use of independent study material, on-line support and two-way audio communication. As far as the initial teacher preparation is concerned, ODL has the potential to be used in a blended model or a mixed model in combination with direct human interaction. Of particular relevance are those elements of ODL which involve independent study. However, the primacy of direct human engagement and actual social interaction among student teachers as the core process of initial teacher preparation needs to be emphasized.

Chapter 2

CURRICULAR AREAS OF INITIAL TEACHER EDUCATION

2.1 Introduction

The kind of teacher and teacher education we have envisioned calls upon us to look at teacher education as a holistic enterprise involving actions of different kinds and from multiple fronts aimed at the development of the total teacher – knowledge and understanding, skills, attitudes, habits and values. To recall, we need teachers who:

- care for children and love to be with them, understand children within social, cultural and political contexts, develop sensitivity to their problems, treat all children equally
- do not treat knowledge as a ‘given’, embedded in the curriculum and accepted without question,
- perceive children not as passive receivers of knowledge, develop their capacity to construct knowledge, discourage rote learning, make learning a joyful, participatory and meaningful activity
- critically examine curriculum and textbooks, contextualize curriculum to suit local needs,
- organize learner-centred, activity based, participatory learning experiences – play, projects, discussion, dialogue, observation, visits and learn to reflect on their own practice
- integrate academic learning with social and personal realities of learners, responding to diversities in the classroom and with productive work
- promote values of peace, democratic way of life, equality, justice, liberty, fraternity, secularism and the zeal for social reconstruction

We believe that teacher education should provide appropriate opportunities to the would-be teacher for:

- observing and engaging with children, communicating with and relating to children.
- understanding the self and others (one’s beliefs, assumptions, emotions and aspirations); developing the ability for self-analysis, self-evaluation, adaptability, flexibility, creativity and innovation;
- self-learning, reflection, assimilation and articulation of new ideas; developing capacities for self-directed learning and the ability to think, be self-critical and to work collaboratively in groups.
- content enrichment to generate understanding and knowledge, examine disciplinary knowledge and social realities, relate subject matter with the social milieu and develop critical thinking.
- developing professional skills in pedagogy, observation, documentation, analysis and interpretation, drama, craft, story-telling and reflective inquiry.

In this chapter a broad vista of a teacher education curriculum that aims at the preparation of such teachers is sketched. The layout of this curriculum can be conceived as comprising three broad curricular areas – (A) Foundations of Education which include courses under

three broad rubrics, namely, Child Studies, Contemporary Studies and Educational Studies (understanding oneself as a person and as a teacher and of theories related to child development and learning and the social and cultural context of education); (B) Curriculum and Pedagogical Theory which include courses under two broad rubrics, namely, Curriculum Studies and Pedagogic Studies (understanding of the nature of subject disciplines in the social context of learning and ways of transacting knowledge with children in formal contexts); and (C) School Internship leading to the development of a broad repertoire of perspective, professional capacities and skills. Together, these areas constitute the common core curriculum for teacher education programmes across stages – pre-school, elementary, secondary and higher secondary. The nature and form which these core components may take and the quantum, intensity, their relative importance, quality of learning experiences to be provided under them and their relative importance may, however, vary with reference to the stage of teacher preparation, the school and learner context and other factors. It is important that they should not be looked upon as independent and separate curricular areas but as interconnected, feeding each other towards the total development of the teacher.

The concern of the present envisioning exercise is to organize the entire teacher education curriculum as an organic, integrated whole. The contours of each of these curricular areas are set out in broad outline showing the kind of learning experiences they cover and the kind of opportunities they provide for the beginning teacher to acquire the needed professional knowledge and skills. These are described in generic terms; they are not to be treated as prescriptive syllabi or course titles. They constitute the basic ideas / themes on which the curricula and courses are to be built to suit particular contexts (stage for which teacher is being prepared, the nature and duration of the training programme, the school and children). One would expect a variety of context-specific curriculum and course designs to emerge from the framework without compromising on the basic principles contained in the vision of teacher and teacher education.

2.2 Area I: FOUNDATIONS OF EDUCATION

1. Child Studies

(a) Childhood, Child development and Learning

Rationale: Understanding the learning and growing child is the basic foundation on which a programme of teacher education needs to be built. Beginning teachers need to understand children by interacting with them and observing them in diverse social, economic and cultural contexts rather than through an exclusive focus on psychological theories of child development. Foundational learning in this area involves establishing links between developmental constructs and principles in psychological theory and the larger socio-political realities in which children grow and develop.

Specific assignments could be evolved to help student teachers to understand children's questions and their observations of natural and social phenomena, to enquire into children's thinking and learning and to learn to listen to children with attention and empathy. It is also important for teachers to understand that learning is not a linear process. It is a divergent process, essentially spiral in nature and takes place in a variety of situations including everyday contexts. Pre-service

teacher education programmes at all levels (including higher secondary) should be designed to include the observation and study of young children in order to appreciate the developmental process as a continuum. An adequate opportunity for this can be provided through courses designed around key concepts and research from the disciplines of Psychology, Philosophy as well as Sociology. Equally important for the teacher is to understand the construct of childhood, the various socio-cultural and political dimensions associated with its positioning and development in society.

Every child needs to be made aware of the importance of healthy living and preventing disease. There is an urgent need therefore to generate health awareness and cultivate habits conducive to healthy living. It is suggested that comprehensive, systematic and scientific approaches to health education and health awareness be included in teacher education curricula. The contents proposed include: nutrition, personal and environmental hygiene, family health, disease prevention and control including HIV/AIDS, mental health, prevention of accidents, health information and use of health services. Likewise, physical education and sports made a regular feature of teacher education curricula.

Curricular provision

Course work: two to three courses designed around key concepts and research from psychology, philosophy, and sociology to engage learners with theoretical concepts and frameworks.

In-built, field-based units of study leading to projects and assignments on child's observations, conceptions and learning of natural and social phenomena.

Through workshops, seminars and assignments, student teachers to be given opportunities to:

- observe and study children at play and at work in diverse socio-economic, cultural, linguistic and regional contexts
- observe and analyze learning and thinking processes of children
- understand children's questions and their observations of natural and social phenomena in order to appreciate the developmental process as a continuum

Child contact practicum to provide hands-on experience with children learners, to learn to listen to children with attention and empathy, to enable back and forth movement between theory and the field. Student-teachers are given the opportunity at the beginning of the programme, to be with children, interact with them, organize creative activities for them, with the aim to learn to communicate and relate with them. While engaging with developmental theories of children, many of the experiences they have had with children during the child-contact practicum are consciously brought into the classroom discourse to draw interconnections, verify and evolve theory and help them articulate new ideas.

2. Contemporary Studies

(a) *Teacher and Learner in Society*

Rationale: There is need to shift the focus from overwhelming emphasis on psychological characteristics of the individual learner to his/her social, cultural, economic, political and humanitarian context. Therefore a rigorous engagement with issues of contemporary India must necessarily be examined through an engagement with concepts drawn from a diverse set of disciplines, including sociology, history, philosophy, political science and economics. Teacher education should provide space for engagement with issues and concerns of India's pluralistic nature; issues of identity, gender, equity, poverty and diversity. This would enable teachers to contextualize education and evolve a deeper understanding of its purpose and its relationship with society and humanity. It is also important to understand the classroom as a social context, as it provides a setting for interaction, generation of dialogue and the opportunity to appreciate diverse perspectives on a given issue.

Student teachers can undertake projects such as tracing the process by which a consumer product (such as tea) is made available from its raw form to a finished product and studying the various factors of geography, economics, politics, history and sociology that may have influenced it in one way or another. Such engagement can help teachers to examine their own conceptions of knowledge, to construct knowledge through interactive processes, the exchange of views, beliefs and reflection on new ideas and break free from the overwhelming need to protect their individual views on education and learning.

(b) *Other critical social issues: human and child rights, environment and development, reservation*

Rationale: Awareness of human rights and the commitment to use this awareness as a means to inspire the young generation are necessary ingredients of any good teacher education programme. Respect for human rights cannot be seen in isolation from an analytical awareness of the contexts, in which human rights are to be observed, starting from the institutional context, extending to the social, national and global contexts. Teachers also need to be fully aware of children's rights, rights for gender equality and the implications these rights have for social change. Courses can be designed to generate awareness and construction of critical perspectives through contextualized presentations. The critical importance of environmental education at all levels has been duly recognized and efforts have been made to treat it as an inseparable part of school curriculum and teacher education curriculum at all stages.

Curricular provision

Course work: one or two courses to engage learners with theoretical concepts and issues such as: *Classroom as a social context:* Learning is greatly influenced by social environment/context from which learners and teachers come. It is also affected by the social climate of the school and the classroom. It provides a setting for interaction, generation of dialogue and the opportunity to appreciate diverse perspectives on given issues; *Issues and concerns of contemporary Indian society:* pluralistic culture, identity,

gender, equity, poverty and diversity; *Ideas of educational thinkers*: Gandhi, Tagore, Dewey and others to be examined in their socio-historical contexts in which they developed.

In-built field-based units of study: Student-teachers are engaged in studying the major characteristics of India's pluralistic make-up with the help of projects based on locally done field work or conduct field interviews while studying the issue of reservation as an egalitarian policy, to collate people's experiences of such a provision and examine policy and theory. Through such a pedagogic process, the onus of drawing connections between experience and theory is not left to the student-teacher alone. Learning spaces are structurally provided in the design of teacher-education programmes for drawing such connections. Because the learner is central to such a process, learning becomes a search for meaning and the developing teacher learns to articulate the connections he/she draws.

Projects: Student teachers undertake projects such as tracing the process by which a consumer product is made available from its raw form to a finished product and studying the various factors of geography, economics, politics, history and sociology that may have influenced it in one way or another. Such engagement can help teachers to examine their own conceptions of knowledge, to construct knowledge through interactive processes, the exchange of views, beliefs and reflection on new ideas and break free from the overwhelming need to protect their individual views. Projects can be complemented with workshops, seminars, assignments around issues and concepts studies in theory.

3. Educational Studies

(a) *Aims of education, Knowledge and Values*

Rationale: Among the many questions that contemporary educational discourse excludes are substantive philosophical questions about the fundamental aims and values that should provide the intellectual basis of contemporary education policy and practice. It is therefore, crucial to provide prospective teachers with opportunities to engage with philosophical issues and concerns related to aims and values of education. Student-teachers and teacher practitioners need to engage with issues in a manner that makes them sensitive to the fact that educational debate is never neutral; it always tends to promote certain educational values while marginalizing others.

Curricular provision

Course work: one or more courses focused on philosophical thinkers in education, theoretical constructs that help to question and debate issues around aims of education and questions of epistemology.

Lecture cum discussion sessions, Self-study units, and Seminars on themes such as: Education as a continuous process of self-discovery, reflection about oneself and the world around us; Education as liberation: The process of education must free itself from the shackles of all kinds of exploitation and injustice (i.e., poverty, gender discrimination, caste and communal bias), which prevent our children and adult learners from being part of the process). ***Education as reconstruction of experience***: Education should aim at making learners capable of becoming active, responsible, productive, and caring members of society. Ideally, education is supposed to encourage students to analyze and evaluate

their experiences, to doubt, to question, to investigate and to think independently; *Intelligence, Knowledge and Rationality*: There are different kinds of knowledge as well as different ways of knowing. The idea that objectivity, which is a necessary constituent of knowledge, can be achieved only if knowledge is free from emotions (care, concern, and love) must be abandoned. One implication of this for education is that literacy and artistic creativity is as much part of a civilization's epistemic enterprise as is seeking knowledge through laboratory experiments or deductive reasoning. The quest for certainty, taken to its extreme, tends to become a demand for a monistic and absolute criterion which leads to the drawing of sharp lines between the rational and the irrational, knowledge and the lack of it. Teacher education courses have the responsibility to pro-actively counter such tendencies and to bring to the surface several contradictions that distort our perceptions and hence develop the ability to relate and communicate with children and with each other.

As we grow, we face new and unfamiliar experiences which question our old ways of thinking as these experiences are either inconsistent with or at a considerable variance from what we had gradually learnt to take for granted. Such experiences are critical and challenging as they involve or require reformulation of ideas, concepts, revision of preconceived notions, and new ways of looking at and dealing with the world. It is this unique human ability, called rationality, which is manifested in a wide variety of ways. Teacher education courses need to offer opportunities for such reflection and self-questioning.

Appreciating cultural diversity and individual differences: Cultural diversity is one of our greatest gifts. To respect and do justice to others is also to respect and do justice to their respective cultures or communities. Cultures on the so called periphery must receive as much attention as cultures in the centre. Ways of life other than one's own must be imaginatively and effectively presented as deserving of as much respect as one's own. The school, through insightful teaching and learning experiences of various kinds, can bring to the child the great importance of this process.

(b) *Developing the self and aspirations as a Teacher*

Rationale: Teacher-trainees need to be provided with learning spaces through a focused study of issues related to self and identity, human relationships, adult-child gaps, assumptions, beliefs and attitudes. They could explore the meaning of ethics and values, observe and understand feelings of fear and trust and their influences in personal and social attitude, attitudes towards competition and cooperation, analyze and observe the impact of competition in personal and social life, observe the role of listening, attention and empathy and the role of a teacher in establishing relationship with children and as a communicator.

Curricular provision

Course Work: one course with focused workshops through link with theory that would require specific inputs from professionals who have engaged with self-development, theatre and creative drama. These often provide non-threatening and non-judgmental learning environments that enable participants to reflect on their own positions in society. Theoretical study with complementary workshops need to focus on issues of identity

development, recognising one's own strength and limitations and developing social sensitivity and skills of empathy.

Workshops in drama, art, music and craft: Student teachers need to engage with their childhood experiences, personal aspirations and aspirations to become a teacher, their views on issues of gender and identity, personal, familial and social conflict.

Recording and analysis of observations: to interpret reality within varying theoretical and experiential frameworks.

2.3 Area 2: CURRICULUM AND PEDAGOGICAL THEORY

1. Curriculum Studies

Activities and processes in the education and professional development of teachers should help participants to understand that knowledge evolves from experience and is constructed through the active process of exchange of ideas, beliefs and reflection on issues in shared and collaborative contexts.

It is important to engage prospective teachers with the conceptual knowledge they have gained through general education. Most teacher education courses focus exclusively on the methodology of teaching individual school subjects. It is assumed that teacher-trainees have the subject-content knowledge, which they would draw upon when required. Hence, teacher education curricula do not engage teacher-trainees with subject-content. However, if we want to prepare teachers to present subject-content in developmentally appropriate ways and with critical perspective it is essential that through simple observations and experiments and discussions, several theoretical concepts learnt during general education in school and college be revisited and reconstructed.

Engagement with content can be designed to be part of investigative projects. Science for example, can involve laboratory work, library and reference, field surveys, group discussions, seeking expert opinion to investigate into questions that children often ask such as Why is the sky blue?, Why do stars twinkle?, How do fish survive without air? How is electricity generated? Similarly, various mathematical concepts and operations can be reconstructed through activities and problems using concrete materials from everyday experiences as well as from mathematical kits, to arrive at solutions or conduct investigations. These need to be followed by reflective discussion on the concepts, solutions, results, and the methods used, both 'right' and 'wrong'. Reconstructing concepts helps student-teachers and teacher practitioners to appreciate the nature of subject knowledge and to link it with appropriate pedagogic processes that communicate meaningfully with children.

2. Pedagogic Studies

Rationale: The purpose is to understand school subjects and their pedagogic study in the concrete context of the school and the learner by forging linkages among learner, context, subject discipline and pedagogical approach. The key departure of pedagogical courses from conventional teacher education would involve shifting the focus from pure disciplinary knowledge and methodology to the learner and her context as well. For instance, a course on language pedagogy would promote an understanding of the language

characteristics of learners, language usage, socio-cultural aspects of language learning, language as a process and the functional use of language across the curriculum. This would mean moving away from the conventional focus on language as a subject, which emphasizes its grammatical structure rather than usage. To enable student-teachers to draw theoretical insights, they would need to engage with projects involving listening to children's reading, observing and analyzing reading difficulties, observing and identifying mismatches between school language and home language, analyzing textbooks and other materials used in different subjects in terms of presentation, style and language used.

A pedagogy course on mathematics would focus on understanding the nature of children's mathematical thinking as much through theory as through direct observations of children's thinking and learning processes, examining the language of mathematics, engaging with research on children's learning in specific areas, examining errors, mathematics phobia and the hidden curriculum.

Pedagogic study of school subjects such as environmental education, history or geography could be based on organizing and planning for excursions, drawing upon local sources of evidence in history, projects on oral history, collection and presentation of specimens of rocks, leaves, stamps, flags, using reports, newspapers, documents, local maps, atlas, map drawing and reading in the classroom. These could be followed by reflective discussion, learning how to make observations, record them and analyse them. Such an approach would help forge linkages between the learner and her context, disciplinary content and the pedagogical approach.

Curricular provision

Course work: two four courses on Knowledge, Curriculum and Pedagogy: knowledge as construction through experiences, nature of disciplines, critical understanding of school curriculum; and pedagogy as the integration of knowledge about the learner, the discipline and the societal context. This would include the following:

Revisiting / reconstructing concepts: It is important to engage prospective teachers with the conceptual knowledge they have gained through general education; *understanding school curriculum:* negotiating curriculum, critical examination of curriculum, analysis of school textbooks; *linking school knowledge with community life:* although much learning and teaching takes place at home, within the neighbourhood and communities of rural and tribal India, the school introduces the child to an environment of teaching and learning that quite by design, marks itself off from the rest of the child's environment. Schools must facilitate the creation of vital links between children's experiences at home and in the community and what the school offers them; *engagement with subject content through investigative projects,* reflective discussions and linking subject knowledge with appropriate pedagogic processes; *engagement with projects* relating to different aspects of children's learning in languages, mathematics, environmental education, history, geography, followed by reflective discussion, records of observation, analysis. *Learning to integrate ideas, experiences and professional skills through practicum courses / projects / in-built field based study units; structured classroom-based research projects* to develop research skills, reflective practice, analysis of school textbooks, children's errors, learning styles.

Learning to assess children's progress: An important role every teacher has to play is that of assessing children's progress, both in terms of their psychological development and the criteria provided by the curriculum. Techniques of assessment and evaluation comprise a substantial body of knowledge to which every teacher must be introduced during his or her pre-service training. The scope of learning assessment and evaluation skills and awareness needs to be broadened to go beyond the limited context of syllabus-based achievement testing; the achievement scores in a subject need to be linked with the child's overall development; the testing should cover higher level of learning objectives and not just information. The National Curriculum Framework, 2005 proposes school-based evaluation as a long-term goal of examination reform. Teacher capacity is to be built for implementing school based evaluation.

History of evaluation and current practices; place of evaluation in learning and development of the learner, broadening the scope of assessment beyond achievement testing to cover child's overall development. Building capacity in school-based evaluation: skills and competencies in conducting evaluation; parameters, techniques, tools, criteria, understanding and interpreting test results, feedback and follow-up; developing self-esteem and confidence to evaluate learners objectively, understanding role of evaluation in motivating learners.

2.4 Area 3: PRACTICUM AND SCHOOL INTERNSHIP

The present context

It is common knowledge that practice teaching which constitutes the most functional part of the teacher preparation has suffered severe neglect and erosion in quality. The common complaint is that theory dominates the curriculum and practice teaching continues to suffer from inadequacies of different kinds like: practices follow a mechanical routine (observation, micro teaching, teaching practice and examination) and exhibit no variety or original thinking, rigid lesson plan format, lack of variety and context specificity in teaching, evaluation of student teaching in terms of number of lessons, No attempt towards comprehensive, qualitative evaluation covering professional attitudes, values, lack of provision for internship and total school experience, inadequate mentoring and supervision.

The NCF-2005 points out that:

- current practices in teacher education take the school curriculum and text books as a 'given' and train teachers to adjust to the needs of the existing school system through fastidious planning of lessons in standardized formats, fulfilling the ritual of delivering the required number of lessons.
- Repeated 'practice' in the teaching of a specified number of isolated lessons is considered a sufficient condition for professional development
- There is no opportunity for teachers to examine their own biases and beliefs and reflect on their own experiences as part of classroom discourse and enquiry
- Theory courses have no clear articulation with practical work and ground realities
- The evaluation protocol is too theoretical, excessively quantitative and lacks comprehensiveness.

Situating the practice of teaching in the broader context of the Vision of the Role of the Teacher

It is obvious that in imparting professional rigor to the preparation of a teacher, practice teaching and associated rigorous theoretical study play a crucial part. It is the effectiveness with which the multiple components of field learning: getting to know the school, observing children, observing teaching and learning in real classroom contexts, practicing teaching, developing capacities to think with educational theories and applying concepts in concrete teaching learning situations, managing classroom learning, evaluating children's learning and providing feedback, learning to work with colleagues, reflecting on one's own professional practice, are transacted that make or mar the making of a professional teacher.

At the outset, it can be seen that any attempt towards reform of current practices and designing of innovative approaches in practice teaching should begin with an understanding of the place of teaching practice in the overall scheme of things. The first thing to be noted is that the teaching practice issue should not be taken as a concern that can be discussed in isolation from the other theoretical and practical issues comprising the teacher education enterprise. It actually constitutes the hub of the multiple and varied activities comprising the total programme of teacher education. It is interconnected with theoretical study, field work and practicum and a wide range of institutional experiences involving school students, teachers, student teachers, mentor teacher educators. In a way it acts both as the evaluation tool for effective teacher education as well as its critical quality indicator.

Accordingly, our engagement with the act of restructuring this practical learning component of teacher education, should involve envisioning the role of the teacher and a guiding philosophy of teacher education. This philosophy may be described as follows:

- Teacher education is to be seen not as a prescriptive endeavour but as open and flexible with emphasis on *changing contexts and empowerment of the teacher*.
- The concern is to make teacher education *liberal, humanistic* and responsive to the demands of *inclusive education*.
- The emphasis in teaching is not to be on didactic communication but on *non-didactic, dialogic explorations between teacher and the taught*.
- The principle that should inform teaching is interactivity, variety, active learner involvement, participation and multi sensory learning.
- The existence of a *diversity of learning spaces and curriculum sites*, diversity of learning styles that children exhibit, the learning contexts in which teachers have to function: oversized classes, diverse languages, ethnic diversities, children with disadvantages of different kinds needs to be acknowledged. Effective teaching consists in adjusting materials and methods to the needs, interests, learning pace and style of learners.
- Classroom teaching is essentially a matter of organizing learning activities aimed at the achievement of the several objectives. A variety of activities can be provided: listening, reading, writing, reciting, singing, play acting, playing with numbers, drawing maps, pictures, observing, collecting specimens, demonstrating, discussing, asking questions, doing experiments, project work and field visits.

- Our aim must be to promote *reflexive practice*, to build capacities of teachers to evolve knowledge, understanding and professional skills to deal with differing and fluid learning contexts.

Curricular provision

School Internship: sustained engagement with children and school

The feature distinguishing the proposed process-based teacher education from conventional teacher education is that of bringing the learners' own experiences centre-stage. Engagement with theoretical concepts and frameworks takes place within the learner's experiential and larger social realities. The structural provision for such opportunity is to be made in the design of the teacher education programme structure and within each area of study. By structural provision we mean the positioning of areas of study/inquiry in a manner that allows an easy flow of movement from experience to theory and theory to field experiences. A back and forth movement between theory and the field could be provided through inbuilt field-based units of study, in each theory course as well as specially designed practicum.

Student-teachers should be given the opportunity to learn to keep observational records, to analyse their observations and interpret reality within varying theoretical and experiential frameworks. Such engagement through structured classroom-based research projects develops in them several skills to function as a researcher, thus equipping them to use mechanisms that enable reflective practice.

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. This can be staggered over the years, beginning with practicum related activities with children, learning to relate and communicate with them, without having the burden of 'teaching' them. This can be followed by field assignments of observing children in naturalistic situations, at play, in school or in the classroom. Only after providing easy comfort of relating to children and getting to know them, teacher trainees are to be entrusted with the opportunity to engage with the process of teaching-learning.

While functioning as a regular teacher for a sustained period of a minimum of 12-20 weeks, the intern would get the opportunity to learn to set realistic goals in term of children's learning] curricula content and pedagogic practice. A sustained contact through internship would help teachers to choose, design organize and conduct meaningful classroom activities, critically reflect upon their own practices through observations, record keeping and analysis and develop strategies for evaluating children's learning for feedback into curriculum and pedagogic practice. The school would benefit from such an alliance in terms of witnessing possibilities of unconventional pedagogies. In this process of internship teacher-trainees develop new materials for teaching-learning which can become valuable resource for the regular teachers of the school. The internship needs to be worked as a partnership model with the school rather than a continuation of the current model of practice teaching during which the trainees merely 'use' the school for their own 'formal degree requirements'.

Practicum can include being with children, relating and communicating with them, field observation of children in naturalistic situations, at play, in school or in classroom, engage with teaching-learning; Choosing, designing, organizing and conduct of meaningful classroom activities; Critical reflection on one's own teaching, record keeping, and analysis; Assessing children's progress; Evaluating learning for feedback into curriculum and pedagogic practice.

2.5 Time as a Critical Factor in Teacher Preparation

The issue of quality teacher education is closely tied up with the concern for the duration of initial teacher preparation (pre-service) programmes. Any form of initial teacher preparation needs to be of reasonable duration that provides enough time and opportunity for self-study, reflection and involved engagement with children, the school, the classroom and pedagogic activities, along with rigorous theoretical study.

An analysis of teacher education practice today would reveal that the practice of teaching is usually of a short duration, no more than five to six weeks and that too piece-meal in approach. Foundational and skill inputs introduced earlier are expected to be integrated and applied during this period. It is commonly held that there isn't sufficient time for learning either the conceptual or the skill components of teaching for them to manifest in the individual and his/her performance. Due to paucity of time, 'lessons' are planned with virtually no reflection on the content of subject-matter and its organization. As a result, most products of teacher education programmes are neither proficient in general pedagogic skill nor are they adept at reflecting on the subject content of school texts.

It is perhaps high time that we pay heed to the specific suggestion of increasing the duration of initial teacher education, recommended by the two most significant policy Commissions of post-independence India, namely the Kothari Commission (1964-66) and the Chattopadhyaya Commission (1983-85). It would be logical to first work towards a redesign of initial teacher education and then consider an appropriate time frame for fulfilling its major objectives, keeping in mind the suitability of pedagogic approach and strategies of implementation. It would no doubt be a wasted effort to provide 'more' of the 'same content and approach' that is already being critiqued heavily and has proven dysfunctional in creating opportunities or spaces for change. Suggested and recommended models of teacher education are presented in the following section.

2.6 Transacting the Teacher Education Curriculum

The most critical aspect of the proposed teacher education curriculum is its transaction. Teaching is a profession and teacher education a process of professional preparation of teachers. A profession, as we all know, is characterized by an organized body of knowledge on which the undertaking is based (the knowledge base of teacher education), a reasonable duration of formal and rigorous professional training in tandem with practical experience in the field and a code of professional ethics that binds its members into a fraternity. Preparing one for a profession thus is an arduous task and involves action from multiple fronts and perspectives. It also calls for systematic evaluation of all facets of the professional training – knowledge and understanding of educational theory, practical field skills and competencies related to learning and teaching and professional attitudes and values. These two aspects of professional training, namely, curriculum transaction and evaluation of learning outcomes, are discussed below:

2.7 Curriculum Transaction

The adoption of *process based teacher education* as outlined in the previous chapter involves providing appropriate opportunities to the student teacher:

- for understanding the self and others (including one's beliefs, assumptions, emotions and aspirations); developing the ability for self-analysis, self-evaluation, adaptability, flexibility, creativity and innovation; understanding and developing oneself as a professional.
- to observe and engage with children, communicate with and relate to children.
- for self-learning, reflection, assimilation and articulation of new ideas; developing capacities for self-directed learning and the ability to think, be self-critical and to work collaboratively in groups.
- for content enrichment to generate understanding and knowledge, examine disciplinary knowledge and social realities, relate subject matter with the social milieu and develop critical thinking.
- to develop professional skills in pedagogy, observation, documentation, analysis, drama, craft, story-telling and reflective inquiry.

Language competence and communication skills

Language cuts across the entire school curriculum. In the context of 'What should teachers know and be able to do?' the role of language as a medium and tool of communication assumes great importance. A teacher talks, explains, illustrates, translates, guides, instructs, cautions, motivates, encourages, and plays various other roles. All of these imply an appropriate and context-specific use of language. Concepts, constructs, examples are the building blocks of knowledge and all these are language-based. This makes the teacher's language competency and his proficiency in communication skills a critical factor in her/his effective performance whether inside the classroom or elsewhere. No doubt the teacher should know her subject, it is no less important at the same time that she should be able to communicate it in a manner that would enable her/his students to comprehend it and analyze it.

In teacher education, irrespective of its stage specificity and the content area all teacher education programmes must focus on and accord *high priority to the development of student teacher's language competence and communication skills*. If this is not done, teacher effectiveness will be considerably jeopardized.

Teaching the adult learner

Teacher education programmes are concerned with adult learners. They need to be based on an adequate understanding of how adults learn. Adult learners are autonomous and self directed, have a vast amount of life experiences and knowledge, are pragmatic and goal directed and respond better to problem/task-oriented learning (case studies, simulations, role play and action research). The emphasis therefore has to be on accomplishment of tasks, insights and competence through open-ended activities.

Bringing the learners' own experiences center-stage

The important feature distinguishing the proposed process-based teacher education from conventional teacher education is that an engagement with theoretical concepts and frameworks takes place within the learner's experiential and larger social realities. The structural provision for such opportunity is to be made in the design of the teacher education programme structure and within each area of study in a manner that allows an easy flow of movement from experience to theory and theory to field experiences. Examples of such provisions under different areas have already been presented (for instance, a proposed child-contact practicum; inbuilt field-based units of study in each theory course).

Engagement with theoretical concepts and frameworks

It is important to note that an engagement with theoretical concepts and frameworks is necessary or else there is the real danger of reducing all classroom discussions, including project work to revolve merely around personal experiences. In such an event there is little hope to lift the discourse from mere description of experiences to reflective analysis. This must be cautioned against, if we want to develop the student-teachers' capacity to think, analyse, interpret and reflect.

As regards teaching of theory we may note that the knowledge component in teacher education is derived from the broader area of the discipline of education as well as foundation disciplines of philosophy, sociology, history and psychology. It needs to be represented so. It is thus multi-disciplinary in nature within the context of education. In other words, conceptual inputs in teacher education need to be articulated in such a manner that they describe and explain educational phenomena – actions, tasks, efforts, processes, concepts, events and so on. In doing so, concepts from various disciplines need to be integrated for arriving at composite understanding of educational components. The point of significance here is that *while formulating knowledge components for teacher education conscious efforts need to be made to represent explanations from the perspective of education as well as of other social science disciplines*. Attempts must be made to shift from the usual 'theory to practice' model to understanding theory in order to develop tools and frameworks of thinking and to theorise about field realities.

Understanding the self and others

Teacher education programmes at all stages should provide opportunities to the would-be teacher for understanding the self and others, developing the ability of self analysis and self evaluation and understanding and developing oneself as a professional. They should also provide ample opportunities to observe and engage with children, communicate with and relate to children, for self learning and working collaboratively in groups. Further, they should provide adequate curricular space for content enrichment to generate knowledge and critical thinking and professional skills in pedagogical observation, drama, craft, storytelling and reflective enquiry.

Training to be a reflective practitioner

The programmes should provide spaces for student teachers to reflect on their own experiences and assumptions as part of the course and classroom enquiry for critical

observation and reflective analysis of the practice of teaching of teachers and teacher educators. Availability, quality, appropriateness and sufficiency of feedback are necessary for learning to be a reflective practitioner.

Theory –practice dialectic

Theory courses in teacher education must be so designed and transacted that they provide greater spaces to generate a deeper understanding of linkages between theories of child development and learning, and methods of teaching specific subjects. The most effective way of ensuring such learning is the internship model based on the primary value of field experience in a realistic situation. The training schedule should enable trainees to participate as regular teachers for a sustained length of time, analyze experience as a teacher, sustained involvement in the school's life during training and spending long stretches of time with children.

Meaningful internship and school experience

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. While functioning as a regular teacher, the intern would get the opportunity to learn to set realistic goals in terms of children's learning, curricula content and pedagogic practice. A sustained contact through internship would help teachers to choose, design, organize and conduct meaningful classroom activities, critically reflect upon their own practices through observations, record keeping and analysis and develop strategies for evaluating children's learning for feedback into curriculum and pedagogic practice. The school would benefit from such an alliance in terms of witnessing possibilities of unconventional pedagogies. In this process of internship teacher-trainees develop new materials for teaching-learning which can become valuable resource for the regular teachers of the school.

Internship experiences need to be organized in a way that is useful in evaluating teacher's ability, supports socialization within the profession, stimulates development of teaching-learning concepts, provides a protected field of experimentation, allows insights into new perspective and enhances motivation to continue learning – reflecting upon their own teaching practices, by reading journals, books, magazines, by observing children, by studying a case, by observing other professionals/peers at work, understanding skill development exercise, by working with hands.

2.8 Need for complementary structures and mechanisms

It must be noted that in order to translate this vision of transacting the teacher education programme it is essential that the complementary structures and mechanisms are in place to allow such a transaction. All theory courses will need to be interdisciplinary in structure and have field-based units of study. For instance, only if a theory course on 'Contemporary Indian Studies' draws on a variety of critical social science disciplines such as sociology, history, political science, economics and geography, will it create a substantive understanding of the 'social, cultural, political and economic context' of education. This will be further strengthened only if theory courses have field-based units of study. Likewise, establishing resource centres that enable hands-on engagement with concepts and 'tools' of education such as textbooks and other resources is critical to

transacting a process-based teacher education programme. These resource centres are viewed as mechanisms for grounding the education of pre-service students as well as in-service teachers within immediate classroom contexts, the wider societal context and learner diversity. The conceptual framework within which these centres will operate is given below:

Establishing Teacher Learning Centres

TLC: A Structural Space for Hands-on Experience

A TLC would be a structural space located within a teacher education institution for providing student-teachers with hands-on experience with learning materials, engagement with children and opportunities for self-reflection. The perspective and design of the TLC would enable processes that engage teacher-trainees with the world of the learner and her context; subject-content, learning materials and the process of learning; and the trainee herself as an aspiring professional.

TLC: A Resource for Teacher-trainees, Teacher Practitioners and Teacher Educators

A TLC would house diverse set of resources that would be required for teacher-trainees to engage with the a diverse set of processes during their training. These would range from learning materials developed by the trainees themselves and those collated from various organizations that specialize in creating teaching-learning materials, activity manuals, children's literature, a variety of school textbooks and other alternative materials available. Opportunities to work with a variety of learning materials would help break the 'habit' of relying on the school textbook as the only source of knowledge and teaching in the classroom.

TLC: A Forum for Interaction and Sharing

A TLC would serve as a forum for interaction among teacher-trainees and teacher-practitioners on issues of developing materials and planning for teaching. Frequent interaction and sharing would help trainees to articulate concerns with clarity and learn from each other's experiences. Interaction among trainees could be organized within yearly, monthly and weekly schedules. The nature of these meetings could range from planning the curriculum for the year to planning units and web-charts for a unit.

TLC: A Platform for Classroom-Based Research

A TLC would serve as a platform for undertaking short research projects that aim to broaden teachers' understanding of children and prompt them to enhance their knowledge of subject-content. For instance, an investigative project on numeracy of how children learn mathematics by focusing on the strategies they use to solve arithmetic tasks. By increasing teachers understanding of how children develop increasingly sophisticated ways of solving arithmetic tasks, the research based learning framework (used in such projects) provides direction for teaching and learning. This in turn would improve children's learning through teacher's professional development.

TLC: A Structural Space for Self-directed Activities

A TLC would serve as a structural space whose resources would be available for teacher-trainees to undertake self-directed activities such as analysis of school textbooks and literacy primers. Learning teachers would undertake analysis of textbooks to assess their suitability for children of different levels. Analysis of textbooks, using dimensions of subject-content, presentation style, language used, treatment of concepts and issues of gender and pedagogic approach would also facilitate trainees to think critically. The study of alternative text material would expose them to the different ways in which texts can be written.

Trainee teachers could be engaged with collating children's questions about natural and social phenomena such as the following: Why do we speak different languages? Why does the lizard not fall from the ceiling? An analysis of these would prompt them to engage with subject content and to appreciate the nature of children's reasoning at different ages. TLCs could provide opportunities for teacher-trainees to understand children's thinking through personal interviews and probing with individual children. Trainees could develop profiles of children from diverse contexts to help them appreciate their unique social, cultural and political environments.

TLC: A Platform for Developing a Repertoire of Skills

TLCs could provide a platform for organizing workshops to develop a repertoire of professional skills such as story-telling, craft, music and drama. Trainees would learn to use stories as a medium to facilitate expression, imagination and the creative use of language in children; create bulletin boards, story-poem folders and organize reading corners in classrooms. They would learn to use drama and art as a learning tool and as strategies for classroom management. Through short research projects teacher-trainees and teacher practitioners will develop skills of observation, documentation, analysis and interpretation.

TLC: A Structural Space for the Personal and Psychological Development of Teachers

TLCs would focus on activities directly related to the personal and psychological development of the teacher. Trainees would be encouraged to engage with their own childhood experiences, aspirations to become a teacher and their views on issues of gender and identity, personal, familial and social conflict. Through focused workshops they would examine adult-child gaps in communication, explore their own attitudes towards competition and cooperation, analyse and observe the impact of competition in personal and social life. Dimensions of self can be explored through activities of drama, art, music and craft which often provide non-judgemental and non-threatening learning environments. Some of the self-directed learning strategies would include finding answers to deep reflective questions; reflective reading; reflection on observations in the classroom followed by group discussion; identification of issues for further self-study; keeping reflective diaries/journals.

TLC: A Structural Space for Forging Links between Pre-service and In-service Teacher Education

TLC in a teacher education institution will provide the necessary space which could be commonly used for both pre-service and in-service teachers. Teacher education institutes that organize both programmes would need to coordinate with the aim to impact select schools in a concerted manner. For instance, regular teachers of the internship/practice teaching schools (where pre-service students are placed), could participate in the in-service programmes, re-oriented to address the immediate classroom context and learner diversity. A cluster of schools selected by DIETs each year to place pre-service students, can also be the selected schools for in-service programmes. All teachers of these schools can be involved in a concerted way through in-service programmes that are redesigned to provide individual support and mentoring. The DIET-TLC would provide the necessary structural space to (a) design the 'routine' in-service package of 20 days and provide hands-on training, which addresses classroom concerns and teachers' needs. (b) provide school-based resource support to individual teachers through the school-based Learning Centre established by interns. Concerted individual support to teachers on classroom-based concerns and issues for duration of about three years is likely to enable a process of change and deep impact. A formal partnership with a university-based institute or an NGO where possible can support the effort of the DIET-TLC in this direction, in particular in the redesigning of the in-service programmes and in providing the bridge between the teacher education institute and schools.

Chapter 3

SAMPLE REDESIGNED SCHEMAS OF CURRENT TEACHER EDUCATION PROGRAMMES

3.1 Introduction

It has already been stated that the broad spectrum of expected learnings in a would-be teacher demands that initial teacher education needs to be of a fairly long duration providing enough time and opportunity for self study, reflection and involvement, engagement with teachers, school, classroom and pedagogic activity along with theoretical study. Any compromise on the duration of training for whatever reason adversely affects the quality of training.

It is therefore recommended that current models of Teacher Education at all levels of school education be gradually replaced by Models of Teacher Education that integrate general education with professional development along with an intensive internship with schools. These Integrated Models should be designed using the specific features outlined in the curricular areas and transaction process. The time-frame recommended to ensure the institutionalization of these models would be between 4-6 years. As an interim measure, current models of Teacher Education such as the BEd and DEd are required to redesign their courses as well as the Programme Structure to include the specific features and structural mechanisms proposed in the new framework in terms of curricular areas and transaction processes.

3.2 D.Ed: Two-Year Diploma after +2; BEd One-Year Degree after graduation

Area 1: Theoretical Foundations of Education

1. Child Studies
2. Contemporary Studies
3. Educational studies

Area 2: Curriculum and Pedagogical Theory

1. Curriculum Studies
2. Pedagogical Studies

Each of the theory courses to have **units of study from various disciplines**. For instance, Courses on Child Development to have units of study on constructs of childhood drawn from sociological studies, units on children's cognitive development and learning to draw from psychological studies.

Each of the theory courses to include **field-based units of study**. For instance, courses on Contemporary Studies to include a project on reservation, or understanding a consumer product such as 'glass bangles' from its raw form to its reach in the market.

The Curriculum Studies Courses would necessarily include units of study that provide a critical study of curriculum materials, syllabi, textbooks in the light of theoretical frameworks and empirical research.

The Pedagogic Studies Courses would necessarily include units of study that provide the critical study of content, an examination of children's thinking and learning and pedagogic processes in the light of theoretical frameworks and empirical research.

Each of the above theory courses to be **complemented with Practicum Courses**. For instance, a course on Child Development could have a practicum on 'Observing Children' in naturalistic settings to study play patterns, to study their economic and societal contexts, interviewing children to understand their thinking and learning processes.

Area 3: Practicum Courses and School Internship

1. School-contact Programme
2. Observing Children
3. Self-development
4. Story-telling and Children's Literature
5. Theatre, Creative Drama, Craft and Music
6. Material Development and Evaluation
7. Classroom Management and Block Teaching
8. Visits to Innovative Centres of Pedagogy and Learning
9. Classroom-based research project
10. School Internship of 4 days a week over a minimum period of 6-10 weeks, including an initial phase of observing a regular classroom.

Each of these practicum should be positioned strategically over the two years to enable a back and forth movement between theory and the field.

The practice of teaching during school internship would include not more than 4 Unit Plans per subject. Planning of the Units would include a critical engagement with content from multiple sources including the school textbook, organization and presentation of subject-matter, formulating questions specifically to: (a) assess knowledge base and understanding of students; (b) further the process of knowledge construction and meaning-making in the classroom and (c) assess students' learning to improve pedagogic practice and further enhance learning.

Transaction of Teacher Education Programmes should follow the broad strategies presented in the earlier chapter.

3.3 Four year integrated programme

Outlined below is a short synopsis of the vision and features of a four-year integrated Programme of Elementary Teacher Education designed to integrate general education with professional training

- Strong Foundations of Education located in sociological understanding of education and philosophical thinking on education
- In-built courses to engage with subject content with the aim to revisit and reconstruct concepts and perspectives

- Engagement with theory of pedagogy and hands-on experience in understanding the learner, her context and processing of thinking and learning as a base to evolve relevant and appropriate pedagogic strategies.
- Theory courses designed to enable inter-disciplinary engagement as well as visit theory in the light of personal experiences and social realities.
- Opportunities for developing the self through drama, craft, music, self-development workshops along with a critical engagement with theoretical constructs of identity development and the individual-social interface.
- Extensive and intensive practicum courses to equip teachers with a grip over existing systemic issues in education, a developing capacity to rise to the uncertainties of a learning environment and changing learner needs and a capacity to feel empowered to make a difference.
- Practicum courses to develop other professional capacities such as the ability to evolve developmentally and contextually relevant pedagogies, re-arranging subject-matter to communicate effectively with learners and a repertoire of skills of relating to children, designing and choosing appropriate learning experiences, observing and documenting, analyzing, synthesizing and interpreting.
- Sustained engagement with schools to appreciate the given constraints of a system and to learn to strategise to think out of the box. Understand and learn to negotiate formal learning spaces as sites of struggle, contestation and social transformation.

Recommendations for Pre-service Programmes of Teacher Education

- A four-year integrated programme of elementary teacher education in select state universities and all Central Universities, in particular via IASEs and select DIETs could be undertaken in the initial phase.
- XI Plan funding under the innovative education schemes should be channelised as a priority by the UGC to Universities and select DIETs to institute four year Integrated Elementary Teacher Education Programmes.
- As an interim measure, current models of Elementary Teacher Education offered by the DIETs such as the DEd are required to redesign their courses as well as the Programme Structure to include the specific features and structural mechanisms proposed in the new framework in terms of curricular areas and transaction processes.
- A review of the existing DEd programmes is commissioned and the process of redesign of the curriculum in the light of the proposed process model be completed in the next 1-2 years.

3.4 Pre-service Programmes at the Secondary Stage

- Existing BEd programmes should be reviewed to facilitate the choice between a four-year integrated model after +2 or a two-year model after graduation, based on state requirements and available institutional capacity.
- As an interim measure, current models of Teacher Education such as the BEd are required to redesign their courses as well as the Programme Structure to include the specific features and structural mechanisms proposed in the new framework in terms of curricular areas and transaction processes.

- A review of the existing BEd programmes is commissioned and the process of redesign of the curriculum in the light of the proposed process model be completed in the next 1-2 years.

3.5 Structural and Operational Issues of Teacher Education and Continuous Professional Development

- Teacher education programmes should be redesigned to respond to the school curriculum renewal process and in accordance with the state and regional context in which they are situated.
- The Curricular Areas presented should form the basic framework for redesigning teacher education programmes at the pre-primary, elementary, secondary and senior secondary stages of education across states and districts through a proposed linkage between SCERT/DIETs with University-based institutions.
- Teacher education programmes should ideally be of four-five years duration after the completion of 10+2 level of school education. To begin with four year integrated programmes could be instituted. Along with a four-year model, other models should be encouraged, for instance two-year models with a 6 months to a year of school internship.
- Integrated model for teacher education could comprise of core components that would be common to all teacher education programmes (pre-primary, elementary and secondary) followed by specialization of professional development specific to the stage of education.
- Mechanisms need to be evolved to promote the entry of talent in teacher education programmes.
- Vertical linkages for post-graduate studies in education, including research programmes, for students from a variety of Science and Social Science disciplines need to be provided.
- A study to assess the dominant entry qualification of candidates for pre-service programmes in elementary education to design state specific strategies will need to be undertaken.
- High-level consultative arrangements on building linkages between teacher education and school curriculum design and its processes of renewal, including the development of curriculum materials would need to be developed.
- A nation-wide review of teacher education curriculum in the light of the school curriculum renewal exercise would need to be undertaken.
- Nation-wide seminars and workshops could be held to initiate discussions and possible strategies for operationalising the institution of redesigned teacher education and development.

Chapter 4

EVALUATING THE DEVELOPING TEACHER

4.1 Introduction

A glaring weakness of existing teacher education practices is the restricted scope of evaluation of student teachers and its excessively quantitative nature. It is confined to measurement of mainly cognitive learning through annual / terminal tests; skill measurement is limited to a specified number of lessons. The qualitative dimensions of teacher education, other professional capacities, attitudes and values remain outside the purview of evaluation. Further, evaluation is not continuous as it should be; the teacher education process is characterized by a wide range and variety of curricular inputs spread over the entire duration of training according to the developmental sequence and these need to be evaluated at appropriate stages and feedback given to the trainees.

4.2 The comprehensive nature of evaluation

Evaluation in teacher education needs to be objective and comprehensive to cover the entire gamut of developing dimensions in the teacher trainees covering the conceptual, pedagogical aspects as well as attitudes, dispositions, habits and capacities in a teacher incorporating both the quantitative and qualitative dimension of growth. These include: engagement with children in their contexts, school curriculum and textbooks, process of learning and knowledge, psychological and professional development, understanding of institutional arrangements, policy perspective, pedagogy and curriculum. Assessment should cover: understanding of the process of child development, societal context of education, nature of children's thinking – mathematics, language, natural and social phenomena, philosophical and sociological frameworks, undertaking analysis of curriculum, grasp of the school as a system, ways in which developing teachers demonstrate their changing dispositions, professional skills in organizing group learning and team work.

4.3 The evaluation protocol

Qualitative indicators specific to each area of assessment need to be drawn up and initial allotment of marks should lead eventually to grades. The bases and criteria for evaluation may include:

Observing children for a specified duration in specific situations: number of hours of observation, method used, detailed notes, recording formats, data coding, reports, analysis and interpretation.

Observational records maintained by the student teacher on a set of criteria relevant to the task and report writing: field notes, classification schemes used to make sense of qualitative data.

School contact practicum to relate and communicate with children: preparation, choice of activities, materials, developments that take place in the classroom, interaction with children, reflection on issues regarding children's learning, expressions, creativity, discipline, influence of varying contexts.

Planning for the school contact: choice of theme, activities, materials, time, organization of material, communication skills, ability to engage children, interaction, time management.

Post contact discussions, report writing and group presentations: quality of discussions, insights, analysis, reflections.

Psychological and professional development of the teacher: Courses, theory and practicum on the development of the self. Personal growth can be assessed using the criteria of the capacity of participants to question and be critical of their own assumptions, thoughts, opinions and ideas, developing insight into one's own self: articulating one's own limitations and strengths, capacity to integrate thought and action, feeling and intellect, developing self-confidence and questioning over-confidence, open-mindedness, ability to listen with empathy and attention, social sensitivity, ability to take initiative, developing positive attitudes and reflecting on negative attitudes. **Self-evaluation** of students would use the same criteria of personal growth.

Assessing a repertoire of skills: regularity and nature of participation in workshops; skills of creating bulletin boards using relevant themes and stories, story folders that make a collection of stories in terms of variety, context, social and cultural diversity and sensitivity, adequate reference to sources and acknowledgements, classification and retrieval system for the use of stories in classrooms and outside, capacity for evaluating 'sound' children's literature with substantive reflection on the why of such a criteria, skills of telling stories to children, selection of story according to a theme, appropriateness in terms of the age group of the children being addressed, the use of animation, voice, pitch, clarity, eye contact, the use of gestures, handling of a story book and the nature of children's involvement.

Understanding the learner, curricular and pedagogic issues: Practicum courses complementing theory learning with curriculum studies: Observation of classroom, teaching practices, visits to centres of innovation, curricular materials, document and text analysis; observation records, individual and group reports, reflections, material development, journal of reflective learning etc.

Teacher as researcher: Teacher-trainees are also given the opportunity to learn to keep observational records, to analyze their observations and interpret reality within varying theoretical and experiential frameworks. Such engagement through structured classroom-based research projects develops in them several skills to function as a researcher, thus equipping them to use mechanisms that enable reflective practice. Over the year trainees undertake several such tasks, including analysis of school textbooks and alternative materials, analysis of children's errors and observation of children's learning styles and strategies.

Internship activities on which students may be assessed: observing and reflecting on classroom practices, regular teaching, teaching-learning resources developed, records of planned units of study and regular daily diary / journal of reflections, evaluation of children: design of assessment of learning, type of questions in domain areas, viewing assessment as an aid to learning and not merely as an indicator of learning.

Each intern would be expected to keep a **reflective journal** that would help her to revisit her experiences in the classroom over the period of internship. The journal would include short descriptions of how the class was conducted, how children responded, followed by analytical and reflective statements about her preparedness for the class, her responses to children's questions, her capacity to include children's sharing of their experiences, her response towards their errors, difficulties in comprehending new ideas and concepts and issues of discipline, organization and management of the group, individual and whole class activities. Evaluation of the journal would mean looking at how the intern has been able to gradually move towards writing reflections rather than merely describing classroom events and processes.

Chapter 5

IN-SERVICE EDUCATION AND CONTINUOUS PROFESSIONAL DEVELOPMENT

5.1 Introduction

The idea of in-service education for teachers was discussed in the Kothari Commission (1964-66) and in the Chattopadhyay Commission (1983-85) as important in order to enable teachers to renew their knowledge about teaching and the subjects they teach as well as to help to break the isolation of the teacher. All initiatives in curriculum, whether of the whole curriculum, special inputs in specific subject areas, or infusing new social concerns, have been implemented through the renewal or up-gradation in the knowledge and practice of teachers already in school. This includes both government initiatives as well as small and large interventions into government schools and alternative schools by non government agencies.

These concerns for the teacher as a professional as well as the teacher as the most important point for transformation in curriculum renewal have in general provided the overarching aims for the design of in-service teacher education and activities contributing to their professional development.

The system has responded by creating structures and institutions for this purpose, and providing increasingly more financial support for these activities. Following the Kothari Commission's report, in several states school clusters were created to forge inter-linkages between primary, middle and high schools and provided a forum and structure of interactions between teachers and receiving professional inputs. Following the NPE 1986, in-service teacher education received support through central government funding for the establishment of Institutes of Advanced Studies in Education (IASE) to chosen University Departments of Education and District Institutes of Education and training (DIET) in each district with a view to provide a space for the conduction of inservice courses for teachers of elementary and secondary schools. The DIETs in addition had the mandate to work towards universalizing and renewing elementary education through supporting innovations and strengthening field activity. The District Primary Education Programme (DPEP, 1995-2003) across the country further set up the structures of the block and cluster resource centers with the explicit mandate to provide inservice training to primary school teachers in new, child-centred pedagogic methods and to provide school based support to teachers. The attempt has been to shift away from the idea of subject inspectors and inspectors of schools attached to the education administration office, towards the idea of a resource person attached to an academic resource and support centre. The Sarva Siksha Abhiyam (SSA, 2001) has also placed emphasis on continuous in-service teacher education requiring each teacher to receive 20 days of training every year.

There has also been a growth in other kinds of professional activities for teachers. All teachers are members of associations which have from time to time taken up academic activities and organized conventions and meetings to discuss professionally important developments. Teachers' involvements in textbook preparation and indeed even in the preparation of training modules etc. has grown over the years. Teacher themselves have

opportunities to work in the block and cluster centers as well as to contribute to trainings as resource persons. They are also members of committees formulating policies in education. NGO initiatives such as the Hoshangabad Science Teaching Programme (HSTP) in Madhya Pradesh, the Uttarakhand Seva Nidhi of Uttranchal, BVIER, Pune and PRISM of the Homi Bhabha Centre in Mumbai, have developed and implemented models of teacher professional development and support in ways that directly impact the classroom. Furthermore, all agencies trying to reach out to children through special packages, whether to promote AIDS awareness or introduce technology into the classroom, heavily depend on providing related training to teachers to implement their programmes.

There is thus a plethora of opportunities and avenues for the continued professional development of teachers. These have varying degrees of success in terms of motivating teachers to alter and develop their classroom practice in ways that improve children's learning and provide educationally rich experiences to them. Micro-stories of success often seem to 'fail' when upscaled. There is very little research into the effectiveness of training, or the status of school support activities on the ground, or detailed understanding of even reported successes and failures. Evidence of 'effectiveness' of training programmes and support activities, especially within the government system, continues to be only anecdotal and impressionistic, and even contrary, depending on who is asking the questions or doing the observation. The whole approach to the teachers professional needs as a professional continue to be determined, planned, implemented and monitored extrinsically, compromising on the concept of the teacher as a professional and with little or no basis for the design of the interventions.

5.2 Aims of Programmes for Continuous Professional Development of Teachers

As a professional, teachers seek for avenues for their self development:

- to explore, reflect on and develop one's own practice
- to deepen one's knowledge of, and update oneself about one's academic discipline or other areas of school curriculum
- to research and reflect on children and their education
- to understand and update oneself on education and social issues
- to prepare for other roles professionally linked to education/teaching, such as teacher education, curriculum development or counseling etc.
- to break out of ones isolation and share ones experiences and insights with others in the field, both teachers and academics working in the area of one's discipline, as well as intellectuals in the immediate and wider society.

Education and curriculum planners also seek to provide avenues for the professional development of teachers as a part of curriculum reform and strengthening:

- to enable teachers to work towards prioritized goals in education such as universalisation and inclusion
- to influence social attitudes and generate greater commitment to constitutional values and overcoming discrimination in the classroom

- to transform existing practices towards more child friendly methods and methods suited to strengthening conceptual learning and understanding rather than rote learning.
- to enable teachers to implement and achieve specific targeted aspects in the curriculum, such as the use of a type of technology, or the addition of topics such as AIDS, or adolescent education, etc.
- to prepare teachers to play enhanced roles in the education system, as resource persons, or head teachers, etc.
- in the context where many pre-service training programmes are of poor quality and often fails to provide teachers with sufficient understanding that could lead to reflective practice, and where state governments have recruited untrained personnel(para-teachers) in various kinds of non-formal centers, it becomes necessary to include the unaddressed needs of pre-service programmes through continued professional development.

5.3 Designing In-service Programmes : Some Principles

The design of in-service programmes would depend on the specific aims of each programme given a vast variation in context. However, some general principles would need to be kept in mind during the design and implementation across various programmes. These would necessarily relate to the teacher as a professional and the content and pedagogic approach to be followed:

5.3.1 Content and pedagogic approach

- Programmes must build on the principle of creating ‘spaces’ for sharing of experiences of communities of teachers among themselves, to build stronger shared professional basis of individual experiences and ideas. Giving teachers a space to develop and hear their own voices is of utmost importance.
- Programmes must be designed with a clear sense of their aims and how the strategies of the programme are going to achieve these aims. This alone can ensure that programmes remain on track and ‘alive’ rather than routine when they are implemented. This may also require then, that every group of trainers either directly participate in the design of the programme, keeping in mind a specific group of teachers, or adapts a given programme to a specific group of teachers. Programmes also need to include a plan for post programme support and include training/orientation of support faculty in the same.
- All programmes must find acceptance of their aims with the teachers group concerned, regarding whether they need such a programme and why they are to attend it. The principle of choice of programmes to attend based on teachers own assessment of what she or he needs or is advised based on some valid assessment of professional requirement would provide a sound basis for in-service programmes especially those that are of a long duration and which seek to impact practice. One size cannot fit all.
- Interactivity must not be compromised on any account. Large numbers, and the use of electronic media in the place of human interaction, compromises on the non-negotiable.

- The content of programmes must be such that teachers can relate to it from their own experience and also find opportunities to reflect on these experiences.
- The approach of motivating for change must not put the burden on individual development alone, but must also recognise and respond to the structural issues that affect teacher's day to day practice. Equally, structures and people in supervisory position must be educated to support and provide space to encourage teachers to plan and practice autonomously.

Programmes that seek to develop or alter basic practice need to be planned towards extensive interactions over time with the same resource group.

5.3.2 *Addressing teachers as learners*

- Teachers are adults, and have already formed a working professional identity and already has experiences of teaching, and associated beliefs about learners, themselves as teachers and of the teaching-learning process. Any in-service programme, whether it attempts to seed new ideas, challenge existing notions and assumptions or simply provide content knowledge, needs to acknowledge and respect this professional identity and knowledge of the teacher and work with and from it.
- Any effort to strengthen teachers' professional practice must equally respect them as professionals. This includes matters of training content and approach, how trainings are announced, and how they are implemented. Programmes must build on and strengthen the teachers own identity as a professional teacher and in many cases also establish and nurture the linkage with the academic disciplines of their interest. Programmes that compromise on the professional identity of the teacher and her autonomy will be unsustainable in the long run, providing very little psychological motivation for teacher to internalize what they have been told into their practice.
- As adults and professionals, teachers are critical observers of the contents of in-service activities and the extent to which they learn from these trainings is a function of their assessment of its quality and the extent to which it relates to their needs.
- The practice of a teacher cannot be developed through quick fix strategies and activities, without the development of an accompanying framework/theory on the process of learning and the aims of education.
- Over-training, routinised and superficial training leads to cynicism and training fatigue.

5.4 Seeking Various Routes Towards Teachers' Continuous Professional Development : Types of In-service Programmes

Keeping in mind the aims of in-service programmes for professional development, there is need to recognize the variety of types of in-service programme and experiences that can contribute towards and sustain professional development. This is especially so in the context in which 20-days of 'training' for all teachers is being mandated by government. If it is for the development and strengthening of overall practice of the teacher, then there

is need to recognize a variety of activities and interactions that could also contribute towards this.

5.5 Short and Long Term Courses

Courses of short and long duration designed to develop either specific skills or areas of interest could be developed and offered to teachers to take over the year. For example, a DIET could design and offer courses in specific topics such as ‘teaching fractions’ , developing secular attitudes among children’, ‘aids education’ etc. Some of these could be of a short duration, say 4 to 5 days, while others may even be for a longer period of time, from 1 to 3 months to enable teachers to develop a specific core area in which they need to strengthen their knowledge-base and professional skills, e.g. using theatre in the classroom, organizing and managing group activities etc. If schedules for such courses along with their content areas are announced well in advance, teachers could sign up and take these courses as and when they wish to. Some of these courses may be designed as continuous periods, while others may be designed with gaps in between, during which teachers could practice and come back to share experiences. Such courses could award certificates. Mass trainings cannot and do not have any impact on teachers practice and are a waste of resources and time.

5.6 The Use of Distance Media

ICT including TV, radio and internet are useful as resources and providing access to ideas, or for the wider dissemination of information. Distance media can be effectively used to keep teachers in touch with other professionals in the field and to give access to professionals in education as well as in pure academic disciplines (within universities). This would go a long way in breaking the isolation of teachers while promoting a ‘culture’ of seeking academic support and providing the necessary platform for the same.

5.7 Sabbatical for Study and Research

Teachers could be provided with the option of taking a year off (paid or unpaid), in order to pursue a course or spend time at another school, university or NGO, in order to learn and study. Such sabbaticals could be tied to a report or even a publication for wider dissemination that is produced at the end. Such a sabbatical could also be linked up with an appropriate mentor on the site to guide the teacher during this period. Small research projects through which teachers can reflect on, share and develop their practice must be encouraged. At the same time, the insistence that teachers MUST carry out action research is not productive, particularly in a context where there is little understanding of action research, and virtually no forum to share such research.

5.8 Professional Conferences and Meetings

Attending meetings and conferences connected to the profession, e.g. on one’s subject areas, etc. could be also counted towards professional development and teachers could be permitted to avail of duty leave 3 to 4 days a year to attend such meetings. Some funding support to travel to and attend such meetings could also be provided.

5.9 Professional Fora, Resource Rooms and Materials

Providing professional fora such as meetings in the school and in the cluster to discuss and review one's practice, to plan for annual work calendars, and on a weekly and monthly basis to plan for one's teaching as well as to discuss with colleagues, the school academic head and resource persons at the cluster or block level, is an essential aspect of the teaching profession. At the cluster level, the availability of resources in the form of reference materials, access to internet resources and to resource persons is essential.

Equally important and significant is the participation of teachers in networks such as BGVS, TNSF, etc. and participation in such activities should be encouraged as a valid form of in-service development of teachers.

Teachers could be encouraged to form subject groups at the block level, which could be provided with support to plan for the development of the teaching of the subject in the block through a variety of ways – seminars for teachers, trainings, meals, children's clubs, etc. These could be given an official status and space at the concerned block resource center and have linkages with the DIET. Such subject groups could be linked with the faculty of local colleges or universities in order to strengthen interactions between groups and provide for synergy between them. Each district education institute, e.g. DIET or CTE could support a few university faculty fellowships, to enable interested people from the university to come and spend upto 4 to 5 months undertaking activities with teachers and children.

5.10 Faculty Exchange Visits and Fellowships

A few exchange teacher fellowships could be provided for each district, to enable selected teachers to go for a period of three months to one academic year to a school in another state within the country, or even outside the country, to teach and learn there. Similarly, schools could play host to such visiting teachers and plan how best to utilize their services during the period of their stay.

Teachers could also be provided with short term fellowships and funding support (based on proposals) to either come to the DIET, CTE etc. or carry out specific activities for the school children and teachers in their own district. This could, for example be a good story teller, who either plans and conducts workshops for teachers on the art of story telling, or to visit schools to conduct story telling workshops, etc. In the long term, in every DIET and IASE, some of the faculty positions may be converted into such fellowships for teachers from the district.

Teacher fellowships could also be provided to enable them to spend one or two years in colleges of teacher education, as faculty of these colleges, involved in the preparation of teachers. For such fellowships, instead of the regular norms of PG degree in education, etc., even D.Ed. and B.Ed. graduates who have experience and established track records of being excellent, innovative and reflective teachers could be considered.

5.11 Implementation of Continuous Professional Development: Critical Aspects

5.11.1 Organisation and coordination

The DPEP and SSA have put in place a system of sites which are to provide professional development to all government school teachers through block and cluster resource centres. In addition there are DIETs, IASEs and various departments and colleges of teacher education, and several networks of teachers and teacher associations. Several NGOs and other agencies are also involved in providing training for teachers, often connected with their own curriculum interventions. These must be recognised as sites and agencies for the professional development of teachers. Currently all these trainings target only government and aided schools, leaving all teachers of private schools out of the ambit. Secondly, they are all based on memos which are issued to teachers to attend these trainings, without giving teachers any choice in the matter. Finally there is no coordination between these agencies, nor does the education department have any mechanism for coordinating the total training being undergone by teachers, with the result there is a lot of over-training, repetition and overlap. In this situation it is necessary to conceive ways in which teachers can opt for different kinds of trainings based on their interest and requirement and along with the recommendation of school inspectors, CRPs or HMs. For this it would be necessary for training schedules to be announced well in advance (at the end of each academic year, for the next year), and for processes to be in place to enable teachers to register for the trainings they wish to undergo. Processes for field support for training etc. would need to be worked out by these agencies providing training, and this need not fall as a mass responsibility of the concerned CRP, as is currently happening. Allocation of funds and training dates, training time, etc. would need to be made more decentralized and based on individual teacher's preferences, thus doing away with the current model of mass trainings based on the one-size-fits-all design. Further training dates allocations could also include time spent in other professional activities such as seminars and conferences, etc. Systems that would enable teachers to avail of long term courses, sabbaticals, etc., would also need to be evolved. Mechanisms for keeping track of trainings and professional activities of teachers would need to be evolved and put into place at the blocks and clusters.

5.12 Sites and Agencies

By opening up the method of organising and providing trainings on the lines suggested above, many agencies that are connected with schools and teachers could become involved in meaningful ways in supporting teachers, which would have a much better impact and mutual benefit, breaking the isolation of not only teachers, but also other institutions. The following could be additionally considered:

University and college faculties of sciences, humanities and social sciences could include extension services for school teachers, opening up their labs and libraries to teachers and sharing with them advances and new ideas.

Colleges of pre-service teacher education could all include extension activities which would also enable their own students and faculty to keep in touch with active teachers. They could also provide special services to their alumni, continuing to mentor and keep track of their developments.

Schools, under the leadership of interested principals and able to support additional adjunct faculty, could, themselves develop into resource centres for neighboring schools. These could also include schools run by NGOs and other private agencies, interested in contributing to the development of all schools in the neighborhood, both government and private, and affiliated to any board. IASEs, CTEs, DIETs, BRCs and CRCs, could also research and develop training aimed at overall school improvement or to target the needs of special schools or groups of children in the district. They could also focus on providing school based support to teachers, by working closely with the school heads.

5.13 Impact

The expectation that ideas that are received at workshops will be directly taken into the classroom for practice is misplaced. Often direct support in the site of the classroom/school is required in order to motivate and to translate ideas into practice. The results of training in the practice of teachers can often be seen unfolding and developing through a series of interactions. Frequently there are also many structural issues for why training is not carried into the classroom and these also need to be addressed. Pre-test, post-test ways of assessing training impact are invalid and pointless. Never-the-less, training and workshops need to be conceived in 'goal directed' ways and in order to have an impact, they need to be supported on the ground as well as monitored. Clear cut indicators for short term and long term impact need to be conceptualized along with the design, and subsequently monitored also. Change is a slow process and it requires patience to see change on the ground. It is easy to blame teachers and find fault with their moral commitments, yet it is also the least reflective and responsible response. Sustaining change equally requires continuous involvement of supporting agencies, to sustain impact on the ground. Programmes and agencies such as the SCERTs and DIETs need to be alert to this requirement and willing to invest in the long term in such involvement.

5.14 Structural and Operational Issues of Continuous Professional Development

5.14.1 In-service Programmes and Continued Teacher Support at the Elementary Stage

- The 'redesigned in-service programmes' offered by DIETs could be linked to the 'redesigned pre-service programmes' of DIETs. For instance, the regular teachers of the schools where diploma students undergo their internship should participate in 'in-service training' as a matter of priority. All teachers of the specific chosen schools should undergo 'in-service training collectively' to make a deeper impact.
- All training content and approaches should be based on the classroom needs of the teachers, may it be content enrichment, need for skills and strategies in classroom organization and management, understanding children's learning strategies, error analysis and children's assessment.

- Short-term courses could be designed for the professional development of teachers in service along the line of courses designed by IGNOU in Primary Mathematics Teaching.
- The language proficiency of primary teachers should be enhanced through specifically designed training modules and programmes offered on the job.
- The SSA funds can be drawn upon for the training of teacher educators by the IASEs and for redesigning the in service training of teachers to make it more classroom based.
- Resource centres set up by pre-service student-teachers during school internship programmes should become the hub of professional development of regular teachers.
- Following the establishment of appropriate IASE-based programmes in elementary education, academic support should be provided to teacher educators in the SCERT-DIET system for reconceptualising in-service training of teachers. The objective should be to develop professional development programmes that are rooted in classroom realities and directly address teacher's needs.
- Established mechanisms for teacher support such as BRCs and CRCs could be strengthened in skills of pedagogy and teacher support by SCERT-DIETs using the proposed new process framework. Coordinators of BRCs and CRCs be trained by SCERT-DIET to assess teachers' needs for support to function as reflective practitioners.

5.14.2 In-service Programme sand Continued Professional Development at the Secondary Stage

- In-service programmes should be redesigned to provide classroom support to teachers and to orient interactive sessions based on teachers' needs and concerns.
- A focus should be established within in-service programmes on the methods of enquiry specific to the sciences and social sciences, along with an emphasis on disciplinary content.
- The content and method of in-service training should be based on an assessment of teachers' needs initiated jointly by SCERT-IASEs.
- IASEs who are chiefly responsible for the in-service training of secondary teachers should be strengthened with capacity to undertake professional development of elementary teachers and teacher educators as well.

Chapter 6

PREPARING TEACHER EDUCATORS

6.1 Introduction

It is obvious that the education and training of a prospective teacher will be effective to the extent that it has been delivered by teacher educators who are competent and professionally equipped for the job. The quality of pedagogical inputs in teacher education programmes and the manner in which they are transacted to realize their intended objectives depend largely on the professional competence of teacher educators.

The need and importance of professionally trained teacher educators has been underscored in statements on educational policy time and again but the situation on the ground remains grim; there is severe shortage of properly qualified and professionally trained teacher educators at all stages of education and especially at the elementary stage. The shortage refers to both inadequacy of required numbers as well as to mismatch in the qualifications of teacher educators and their job requirements.

6.2 Existing Arrangements for Training of Teacher Educators – Status and Critique

Early Childhood Education

ECE aims at total child development in a learning environment that is joyful, child-centred, play and activity based. Teacher education programmes in ECE should develop in the trainee concepts, competencies, attitudes and skills related to implementation of developmentally appropriate curriculum based on child-centred and play and activity based approach: cognitive and language development, health and nutrition, social – emotional development, physical and psychomotor development, aesthetic development, creativity and play, programme planning and school organization, community mobilization and participation. These requirements call for a teacher educator who has a sound educational philosophy of ECE besides specialized content and methodology skills pertaining to the above areas.

The diversity that characterizes the ECE situation calls for development of multiple models of training of workforce with reference to age groups, nature of programme, level of staff and mode and location of training. Available institutional arrangements for pre-school teacher education are grossly inadequate considering the expected expansion of pre-school education sector in the coming years. Also there is need to evolve specially designed programmes at the degree and post-degree levels for the training of teacher educators. One possibility is to develop the M.Ed as a teacher educator training programme with specialization in pre-school / elementary / secondary teacher education.

Primary / Elementary Education

With the establishment of DIETs two categories of teacher educators at the elementary level have emerged – those who teach in DIET and others who teach in other training institutes, government or private. In most states DIETs are the main supply institutions for

elementary teachers (however, this situation has changed with the large scale proliferation of private ETE institutions over the past five years). There are 556 DIETs sanctioned of which 466 are functional (*WG Report on elementary education and literacy XI Five Year Plan 2007-12*).

The DIET functions – pre and in-service teacher training, non-formal and adult education workers, curriculum and materials development, educational research, extension, planning and management – call for high level of competencies and skills especially in educational planning, management, research and technology. Presently DIETs find themselves totally under-equipped in required faculty capabilities; the faculty appointed do not possess the required academic qualifications or professional experience. Many of them do not possess basic experience in primary school teaching, insights into primary education problems and professional skills in teacher training and research. Teacher educators in non-DIET institutions share these shortcomings

The basic orientation of initial training of elementary teachers should be transformed towards front line national concerns like access, drop out, participation, achievement, gender, teaching in difficult contexts. This calls for participatory curriculum planning involving all stakeholders, modular organization of curriculum in terms of tasks integrating relevant theory, greater curriculum time for skill learning and practice, a professional approach to training strategies and development of materials, and application of relevant educational technology in training processes. The system as of now severely lacks teacher educators trained in carrying out such tasks. Apart from isolated efforts of some universities, there exist no programmes for professional preparation of elementary teacher educators. Neither B.Ed nor M.Ed in their present form equips prospective teacher educators with the required skills to carry out the tasks specific to elementary education.

Secondary Education

The B.Ed programme is offered in Colleges of Education and University departments of education. The programme is also offered through centres of distance education / open universities. B.Ed is also offered with specializations, for example, child development, home science, science, English, Hindi, Sanskrit etc. There has been a proliferation of B.Ed colleges and courses over the past few years triggered by market factors, their total number as on March 2007 being 4034 with an approved intake of 416472 (*Annual Report*). The curriculum covers educational foundations, pedagogy of school subjects, practice teaching / internship and optional papers in different specializations like: action research, guidance and counseling, population education, inclusive education, and computer education.

Secondary teacher education got a major boost with the elevation of selected institutions as Colleges of Teacher Education and Institutes of Advanced Studies in Education under the centrally sponsored scheme of strengthening teacher education. The CTE / IASE guidelines particularly focused on the need for recruiting persons with high academic and professional qualifications on par with those obtaining at the general arts and science colleges and universities as per university norms. There are 104 CTEs and 31 IASEs functioning in the country (*WG Report*). The scheme envisaged both short and long term selection procedures for recruiting only persons of outstanding ability and record. It also indicated the creation of a separate cadre of teacher educators, parity in pay scales with the general colleges, financial incentives for outstanding performance and promotional avenues.

In practice, the typical secondary teacher educator is a graduate with a post graduate degree in education. The NCTE norms prescribe a Master's degree with M.Ed or B.Ed having 55% marks with Ph.D / M.Phil carrying special weightage. Although M.Ed is generally accepted as the requirement for one to become a teacher educator, the programme as offered in most universities is simply an extension of B.Ed seriously lacking in inputs focused on the preparation of teacher educators, secondary or elementary.

By way of summing up, we may note that at all stages TEIs are managed by faculty with little or grossly inadequate professional training to handle the tasks of a teacher educator. The absence in the system of institutions and programmes focused on the professional preparation of trainers / teacher educators for different stages of education accounts for the situation. With the mushrooming of TEIs over the years the situation has become critical as the supply of teacher educators has not kept up with the increasing demand for faculty and institutions have compromised faculty requirements with reference to both qualifications and number.

6.3 Education of Teacher Educators – Basic Issues

6.3.1 Teacher Educator and School Education

The profile and role of teacher educator are to be conceived primarily with reference to the philosophy and principles that govern the various aspects of school education – aims of education, curriculum, methods and materials and the socio-cultural context in which the school functions – and the role of the teacher in translating educational intents into practical action. Accordingly, if a teacher *qua* teacher is expected to behave in a particular way, for example (as cited in the *NCF position paper*),

- care for children and love to be with them,
- understand children within social, cultural and political contexts,
- not treat knowledge as a 'given', embedded in the curriculum and accepted without question,
- perceive child not as a passive receiver of knowledge,
- encourage its capacity to construct knowledge,
- discourage rote learning,
- make learning a joyful and participatory activity,
- critically examine curriculum and textbooks,
- contextualize curriculum to suit local needs,
- treat all children equally,
- organize learner-centred, activity based, participatory learning experiences – play, projects, discussion, dialogue, observation, visits,
- integrate academic learning with productive work,
- promote peace values - democratic way of life, equality, justice, liberty, fraternity, secularism and zeal for social reconstruction,
- reflect on her teaching experience

then it follows that the teacher educator (whose job is to contribute toward the preparation of such a teacher) should share the underlying educational philosophy and also possess the needed understanding and professional competencies to

develop such behaviours in his/ her charges (student teachers). This would imply corresponding change in the behaviour of teacher educator *qua* teacher educator like the following:

- Engage would-be teachers with the larger socio-political context in which education and learners are situated
- Engage teachers with children in real contexts than teach them about children through theories
- Bring into the TE curriculum and discourse trainees' own assumptions about children and beliefs about knowledge and processes of learning
- Help teachers to reflect upon their own positions in society – gender, caste, class, poverty, linguistic and regional variation, community, equity and justice
- Focus on the developmental aspects of children with constant reference to the socio-economic and cultural contexts of children
- Engage with theory along with field experiences to help trainees to view knowledge not as external to the learner but as something that is actively constructed during learning
- Provide opportunity for trainees for reflection and independent study without packing the training schedule with teacher directed activities
- Integrate academic knowledge and professional learning into a meaningful whole
- View learning as a search for meaning out of personal experiences and knowledge generation as a continuously evolving process of reflective learning
- View knowledge not as an external reality embedded in textbooks but as constructed in the shared context of teaching - learning and personal experience
- Provide opportunities to the student teacher to critically examine curriculum, syllabi and textbooks
- Change perception of child as a receiver of knowledge and encourage its capacity to construct knowledge

In other words, the locus of the functions of teacher educators lies in the role perceptions of teachers with regard to educational objectives, practices and processes of the school.

6.3.2 Stage Specificity in the Preparation of a Teacher Educator

It is generally the case that those who function as teacher educators do not possess appropriate stage specific professional training or experience. The paradox is that although teachers are trained / appointed for specific levels of schooling (even this is not strictly adhered to nowadays with B.Eds being allowed to teach in primary schools) teacher trainers are not. For a long time it has been taken for granted that the existing arrangements for teacher preparation at different stages would do as well for teacher educators too, B.Ed for elementary teacher educator and M.Ed for secondary teacher educator. B.Ed, it may be noted, is basically a course for preparing secondary school teachers. The logic that seems to operate is that one's higher position in the educational hierarchy would entitle one to train others working at the lower levels irrespective of whether one possessed the relevant skills. The difficulty is exacerbated by the absence of established mechanisms to create a professional cadre of teacher educators, especially at pre-primary and the elementary stage. At present elementary teacher educators in their bid to upgrade

their professional qualifications study M.Ed. The IASE brief includes the training of elementary teacher educators which they do by running the M.Ed programme of the concerned university. But M.Ed cannot meet the requirements of primary teacher training unless it is redesigned to impart the needed focus.

The worst sufferer of this situation is elementary education. First, the large scale expansion of the elementary education sector and the plethora of new support structures that have come up at the district and sub-district levels has created the need for suitably trained human resources to carry out such field functions as training of teachers, field supervision of educational activities, research and development of curriculum and teaching-learning materials, advocacy and developmental work with teachers and communities. Other than the activity of teaching children in elementary school, all other functions related to this sector of education are attended to by people who have trained for and taught only at secondary level due to lack of appropriately trained personnel in elementary education. There exist no large scale, focused degree / post degree programmes in these areas. Second, despite its critical importance to the individual and the nation, elementary education remains sadly neglected as a knowledge field. As a knowledge field elementary education has its distinct concerns, a domain of interdisciplinary knowledge, concepts and methodological perspectives. A wide range of experiences, insights and knowledge of different kinds related to elementary education exists in the country in the form of NGO work, academic and field research and other quarters. This scattered experience and knowledge needs to be brought together to evolve a coherent vocabulary, researched and documented knowledge base and informed perspectives for elementary education.

The issue of stage specificity should not be misunderstood as an argument for extending existing hierarchical arrangement of school teachers to teacher educators also but only to acknowledge the special nature of school education at different stages and make out a case for properly trained professionals to work the system. The issue needs to be addressed in the wider context of irrational disparities in the career path, remuneration package, service conditions and conditions at the workplace that characterize school education and teacher education.

6.4 M.Ed as a programme for Preparation of Teacher Educators

M.Ed is the dominant PG programme in education offered by Indian universities. The entrants are already initiated into rudiments of educational theories, institutions, processes and practices. The course draws a large variety of clientele: fresh graduates from different disciplines with B.Ed, experienced teachers, education functionaries in different government departments. Due to the heterogeneous clientele and shifting demands of jobs related to education, the course has to cater to wide range of academic and professional needs. The products are employed by Boards of school education, directorates and inspectorates of education, schools, SCERTs, teacher training colleges and institutes as teachers, teacher educators, curriculum experts, evaluation experts, population education experts etc.

The M.Ed has come under severe criticism on several counts. First, as a professional education programme, it lacks specificity, focus and rigor. The wide range of academic

and professional needs in education like training of teachers, educational administration, educational research and extension, development of curriculum and teaching-learning materials and so on need more focused interventions; the omnibus M.Ed cannot fulfill these expectations. Even as a general programme of PG studies in education M.Ed has not responded to the many shifting and newer concerns in education. It is also indistinguishable from the 2 year M.A in Education (considered a programme of liberal, academic study of education) because in actual course design and content the two do not differ on any sound academic rationale. The existence of two parallel PG programmes in education has created an anomalous and confusing situation and has raised questions of equivalence.

Although M.Ed is generally accepted as the requirement for one to become a teacher educator, the programme as offered in most universities is simply an extension of B.Ed seriously lacking in inputs focused on the preparation of teacher educators, secondary or elementary. The *NCF Position Paper* observes: Existing programmes of teacher education such as the M.Ed have become, in many universities, programmes of liberal studies in education and are woefully inadequate in facilitating a deeper discourse in education and an opportunity for inter-disciplinary enquiry. These offer little scope for professional development and research in key areas of school education such as curriculum enquiry and design, pedagogic studies, epistemological concerns and issues related to school and society. As a consequence, the dominant ethos of teacher education remains confined to a positivist approach drawn from classical schools of thought in educational psychology and having little contact with a large number of innovative experiments that have mushroomed across India since the 1980s”.

From the point of view of education of teacher educator, the oft repeated charge is that the typical M.Ed programme is very poorly focused with respect to training of teacher educators, primary or secondary. The seriousness of the problem has now dawned on all concerned and the question of training the trainers is being seriously addressed. The effective functioning of the more than 500 DIETs, the country’s largest network of elementary teacher education institutions, depends critically on the supply of adequately trained human resources especially in the field of elementary education. It is realized that B.Ed which is focused on secondary school teaching cannot on its own qualify one to train elementary school teachers and the M.Ed. which in most cases is an extension of B.Ed cannot equip one to function as a trainer.

6.5 Imparting Professionalism to M.Ed

Several proposals are being made to improve the design and impart greater rigor and professionalism to M.Ed. Efforts are afoot to align M.Ed to teacher education, elementary or secondary. The need is now being effectively articulated for identifying the objectives of education of teacher educators and the designing of programmes that offer specializations for meeting the needs of teacher education for different levels of schooling. The NPE Review made a specific recommendation to organize a specially designed training programme to fit all the desired attributes of a teacher educator. Recognizing the need for two kinds of teacher educators one for the theory part and the other for the practical part, the NCTE curriculum framework (1978) emphasized the need for developing a task oriented M.Ed which provided scope for practical work in education. To impart professional edge to the programme keeping in view the learnings required of a teacher educator study and observation of a teacher education institution and some

experience of functioning as a teacher educator is built into some designs of M. Ed. The provision of field-based dissertation and compulsory internship in a teacher education institution requiring observation, study, instruction and reflection is expected fulfill this need. The NCTE norms committee suggested inclusion of internship in a college of education to impart teacher education specificity to the M.Ed programme.

There are also proposals for specialized P.G courses in teacher education (Master of Education in Teaching), a 2 year advanced course in education with provisions for specialized areas in development of scholarship in education and applied fields - teacher education, curriculum planning, evaluation, counseling, sociology, philosophy of education etc.

Apart from programmes that address their immediate needs of training and educating prospective teachers teacher educators also need further in-depth professional training in specified areas of education. Such training may not be available to them in the multi-purpose models of M.Ed even in their improved form. These areas may be: educational research methods, ICT applications in teacher education, curriculum and materials development etc.

Towards a specialization – centred M.Ed programme catering to a wide range of disciplinary specializations the UGC has proposed M.Ed with core papers of philosophical and social foundations of education, psychological foundations of education and methodology of educational research and choice of specialization areas. These include: Guidance and Counseling, Distance education, Value education and Human rights, Language Education, Comparative Education, Teacher Education, Special education, Educational technology, educational measurement and evaluation, curriculum development, management, planning and financing of education, environmental education, science education, yoga education.

6.6 A Promising Innovation: Collaborative Post Graduate Programme of M.A Education (Elementary)

CPG is a collaborative post graduate programme in elementary education launched by the Tata Institute of Social Sciences, Mumbai. It is a first of its kind, pan-Indian programme intervention in elementary education at the post-graduate stage. It's interdisciplinary and collaborative design - the collaborating organizations are: Homi Bhabha Centre for Science Education, Eklavya, Digantar and Vidya Bhavan Society - and dual mode operation (on-line learning and contact) makes it a bold and novel venture. Its twin objectives are to provide a firm disciplinary base to elementary education and train a range of professionals with different specializations - teachers, teacher educators, curriculum and textbook developers, educational planners, administrators and researchers.

The two-year (4 semesters) CPG is available for those with a bachelor's degree The programme is designed around the core areas of philosophy, sociology, child development, cognition and learning, curriculum, policy and institutions and research method and optional courses in gender, pedagogy, curriculum and management. It has 10 courses and a two week residential field attachment at sites known for innovative practice.

The significance of the innovation lies in its approach to address the two critical needs of the teacher education system. First, it demonstrates an approach to build professional preparation of teachers, teacher educators, curriculum and textbook developers, educational planners, administrators and researchers around integration of academic knowledge and field learning. Secondly, through its innovative design and transaction of curriculum covering all core and foundational areas of education - theory, issues, research – and their integration with practical skills and field learning it demonstrates the scope, content and methods of elementary education as a knowledge field.

6.7 Enhancing the Status of Educational Studies and the Professional Development of Teacher Educators

Isolation of education as a discipline from the system of higher education is identified as one main cause for the continued low status of educational studies. Several suggestions have been made to deal with this issue. One proposal is to diversify specializations into areas of curriculum and pedagogic studies in mathematics, languages, social sciences and sciences and encourage students to pursue PG in a chosen discipline along with the option of specializing in a select curriculum and pedagogic study course. It is also suggested that UG students be provided with a variety of routes to pursue studies in education like four year integrated courses in elementary and secondary education, electives in educational studies followed by a range of PG studies in education, social sciences, sciences, humanities, mathematics, language studies, liberal arts. Such diverse routes are likely to tap talented and motivated young people to enter into education and pursue options like teacher education, research, curriculum, pedagogy (*Curriculum framework for teacher education*, draft 2006, NCTE).

What is needed is a comprehensive and enduring arrangement for the professional development of teacher educators and enhancement of the status of education as a discipline. It is heartening that the WG has addressed the issue in all its aspects and has come out with a range of recommendations covering institutions, structures, programmes, activities and incentives. The recommendations include:

- Setting up of *Schools of Education* in selected (30) university departments including the RCEs for breaking the isolation of elementary and secondary teacher education from the mainstream and integrating it with higher education. The Schools will have *Centres* for pre-service teacher education, curriculum research policy and educational development, learning and pedagogic studies, assessment and evaluation, professional development of teacher educators and teacher education curricula and teacher resource and academic support.
- Setting up one *Inter university centre* at the national level functioning under the UGC to coordinate the Schools in terms of academic content: redesigning teacher education curricula, developing curriculum materials, commissioning of materials in regional languages, setting up of web portals on curriculum and pedagogic materials for teacher education. The mandate for centre would be to provide an integrated focus on elementary and secondary levels of school education
- Instituting *Specialized Centres of Education* in lead national level institutions like IISc, Homi Bhabha Centre, TIFR to offer sandwiched PG courses of 3 years duration (B.Ed for 2 years or M.Ed for 3 years towards developing a specialized cadre of Sr sec school teachers and teacher educators

- Establishing four *Regional centres of educational management* in the IIMs and NUEPA to provide a PG degree in educational management for Heads of DIETs, SCERTs
- The *Centre for professional development of teacher educators* will offer Masters programme in elementary education / secondary education with specialization in curriculum and pedagogic studies in mathematics / science / social science education and assessment,
- Reorientation of select secondary school teachers for elementary school teaching through Advance Diploma in elementary education, focused programmes of professional development for DIET / SCERT faculty including curriculum and pedagogic studies and disciplinary knowledge base,
- Special emphasis for professional renewal of existing teacher educators through Refresher Courses for all teacher educators including elementary school teachers in the proposed university Schools of Education and special subject refresher courses by university departments.
- Fellowship Programme, 200 Fellowships for teacher educators working in the government and aided institutions of teacher education. The Fellowships will offer opportunities for attachment to institutions of higher learning to pursue teaching and research for a period of 2 years.
- Periodic academic enrichment activities – public lectures, film and book discussion sessions, need based issues etc, short-term orientation courses on teaching learning skills, meta learning strategies related different curricular areas and child development, pedagogical aspects related to reading, writing, thinking and instructional design theories for curriculum developers, institute teacher educator fellowships to undertake research with provision for mentoring.
- The *Centre for teacher resource and academic support*: provision of teacher resources, children’s literature, variety of school curricula, textbooks, multimedia materials, internet access; platform for teacher interaction, exchange, seminars, study sessions, academic support face to face as well as through ICT; development of learning and teaching materials for use in schools and sharing across schools.

Taken as a whole this package of recommendations holds out high hopes for the enhancement of the status of educational studies in general and professional development of teacher educators in particular.

6.8 Preparation of Teacher Educators –Future Directions and Possibilities

Presently the education of teacher educators takes place mainly through the well entrenched one year M.Ed. Further advancement is available through M.Phil and Ph.D routes. As already pointed out, none of these are designed specifically to prepare a teacher educator although they all provide knowledge related to some aspects of teacher education.

It is a promising development that the education of teacher educators has been acknowledged as a major issue in teacher education and academic bodies have addressed themselves to the task of curriculum renewal. This is evident in the different models of M.Ed that have been proposed by individual universities and innovative programmes of teacher preparation launched by some institutions. The concern to make the M.Ed a focused learning encounter rather than a general study of education is clearly visible. The need for professional rigor, relevance of content, emphasis on research related skills are also

appreciated. These concerns demand that we think out of the box in addressing the issue of new programme designs for the education and training of teacher educators. The following recommendations deserve serious consideration in addressing these concerns:

- Mechanisms need to be evolved to promote the entry of talent in teacher education programmes. Students with Masters degree in science or humanities should have opportunities to join the M.Ed programme in a 2 year programme. The route to M.Ed should not be confined to B.Ed alone
- Vertical linkages for PG studies in education including research programmes for students from a variety of science and social science disciplines need to be provided
- Integrated model for teacher education of four or five years duration could comprise of core components that would be common to all teacher education programmes (pre-primary, elementary, secondary) followed by specialization of professional development specific to the stage of education
- Specialized M.Ed programmes in science education, language education, social sciences education and mathematics education can be offered
- The distinction between education as a liberal study and education as a professional preparation needs to be appreciated. The focus in the M.Ed programme. The knowledge component in teacher education is multi-disciplinary 'educational' knowledge; it needs to be articulated in a manner that it describes and explains educational phenomena – actions, tasks, efforts, processes, concepts, events and so on.
- The programme should involve rigorous professional training in field settings under the guidance and supervision of mentors over an extended duration

Apart from proposals for comprehensive reform of teacher education like integrated programmes providing for diversification of specializations and diverse routes for UG students as discussed before, one can conceive a variety of programme designs and structures which do not call for drastic structural changes.