Confederation of Indian Industry

Towards Professional Preparation of the Teacher Educators

A Critical Analysis of the Current Teacher Educator Profile and Competencies

Confederation of Indian Industry

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FOREWORD

Ashutosh Chadha
Director Corporate Affairs
Intel South Asia

Effective education transformation can help increase student competitiveness, build relevant skills and competencies, support economic development and provide social cohesion.

Teacher education is core to driving education transformation in any given institute, state or country. Sustained and systemic teacher professional development practices can ensure that the teachers adapt to the changing learning needs of children and society and support a more student-centered learning environment.

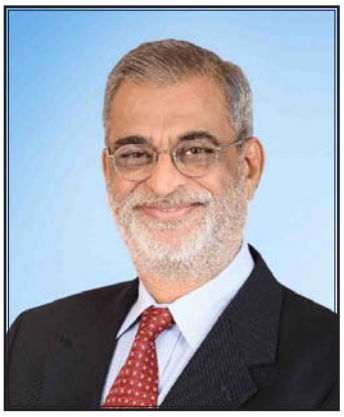
If Teacher education is where the foundation of education quality is initiated – then the question is what do we do to build, rejuvenate and support this bastion of education to support the 21st century socio-cultural, economic and pedagogical contexts?

A research for understanding the profiles, skills and competencies of the Teacher Educators was very much the need of the hour and thus we would like to thank the CII National Committee on School Education for initiating, driving and bringing this research to a logical conclusion in the form of this report - "Towards professional preparation of Teacher Educators: A Critical Analysis of the current Teacher Educator Profile and Competencies"

The report offers an insight into the world of teacher educators, the programs and the way in which teacher education is organized in India. It seeks to answer questions that deal with the currency, efficacy and sufficiency of teacher education programs, and suggests some measures for a more robust system.

At Intel, we firmly believe that "Computers aren't Magic; Teacher Are" (Criag R Barrett Former CEO/ Chairman Intel Corporation); and will continue to catalyze education transformation to help achieve quality learning outcomes.

MESSAGE



Vijay K Thadani

Chairman
CII National Committee on School Education

Teachers are and will remain the backbone of the education system. However, the socio-cultural and technological changes are causing a strong need for the teachers to relook at their role in the learning process and then equip themselves with modern methods.

What is this emerging role of teachers? Are our teacher education programs preparing teachers for this new role? Do the structures of these programs have the built-in agility to adapt to the changing requirements and policies? Does the teacher education prepare the teachers to leverage technology? And therefore what are the emerging imperatives for our teacher educators?

A strong need to seek answers to these questions and revisit the very significant role of teacher educators initiated the CII study 'Towards Professional preparation of Teacher Educators: A Critical analysis of current Teacher Educator profile and competencies' We are pleased to present the study on the occasion of the National Conference on School Education.

This study will be an important reference for all stakeholders to ensure quality of Teacher Educators who will then educate the teachers of tomorrow thus bringing about a change in thequality of life of the youth, community and the nation. I am highly confident that this study will add significant value and will be well utilized by all concerned.

I acknowledge the contribution of members of CII National Committee on School Education, particularly Mr Rajeev Katyal and Ms ShabdaBedi for their leadership, initiative and thought provoking inputs for the study.

I also thank Intel and HSBC for supporting CII in bringing out this report.

MESSAGE

Chandrajit Banerjee

Director General
Confederation of Indian Industry

I take great pleasure in introducing the report 'Towards Professional Preparation of Teacher Educators' prepared by Confederation of Indian Industry in conjunction with the CII National Conference on School Education being held on 26th February 2013.

CII has long been involved in the field of education from the policy perspective as well as direct interventions. We believe that industry as a major beneficiary of India's talent reservoir must be a committed partner in building skills and capability among our youth. This task has assumed added significance in the light of India's demographic dividend, a large pool of children and youth which will emerge as a strong force on the global arena in years to come.

Our efforts have gathered pace since the Government instituted the Right of Children to Free and Compulsory Education 2009. The CII National Committee on School Education, spearheaded by Mr Vijay Thadani of NIIT, has consistently worked across stakeholder groups to shape policy perspectives on education, create and sustain partnerships, and undertake vital projects to enhance industry participation in the sector. This report is part of this effort.

The role of Teacher Educators is central in the overall education endeavor where India faces a lack of trained and qualified educationists. This report, prepared with inputs from 20 teacher training institutes and a strong list of experts, identifies professional competencies of TEs with a view to underscoring gaps. It also seeks to examine the efficacy of current systems of pre-service and in-service teacher education curriculum in order to make recommendations to synergise efforts for improvements in quality attainments.

I am confident that valuable insights from this study would serve to provide better education parameters for our children and youth. I take this opportunity to extend my heartfelt gratitude to all those who have assisted in its preparation.

Rajeev Katyal

Member
CII National Committee on School Education

The CII National Committee on School Education 2011-12 set up the Capacity Development sub-committee rightly recognizing the super critical need of Teacher readiness in India.

The nation has embarked on a very ambitious program of spreading school education into the nooks and corners of the country. The Right of Children to Free and Compulsory Education Act 2009 aims to make education available to all children at the Elementary Education level between 6 to 14 years. The Rashtriya Madhyamik Shiksha Abhiyan (RMSA) aims to achieve 100% Gross Enrolment Ratio by 2017 and Universal Retention by 2020. These programs therefore involve the setting up or upgradation of school facilities in very large numbers. The need for teachers in adequate numbers and of required quality cannot be emphasized enough.

The sub-committee, in its first meeting decided that instead of focusing on the whole question of Capacity Development, it would conduct an incisive study on an area that has a huge impact on Teacher Availability. The study would give concrete recommendations in that area and also serve the purpose of stimulating further meaningful work in that area. The rationale behind this choice was that while other factors like number and quality of teacher training institutions, career development of teachers, attractiveness of teaching as a career were some factors responsible for determining quality and quantity of teachers, Teacher Educator Preparation improvement would be a high impact area when it comes to improving Capacity Development for School Education.

The study titled – Towards Professional Preparation of Teacher Educators – A critical analysis of current Teacher Educator Profile & Competencies, aims to:

- Understand the existing and needed profiles, skills and competencies of the TEs
- Suggest curricular inputs for improving the standard of the existing TE preparation course.

The study has focused primarily understanding the profile of the Teacher Educator, the skills and competencies expected of this individual and has given critical attention to the ability of the M.Ed curriculum and teaching methodology to produce effective Teacher Educators.

The final report not only gives suggestions but also points towards the need for further work in strengthening the Teacher Educator who produces the Teachers of the nation. It should serve as an admirable guide to the efforts of education authorities and experts, seized with the urgent task of Teacher Development in India.

The guidance and encouragement given in setting up and helping this committee start and launch this work by Dr. Harpal Singh, former Chairman of the CII National School Education Committee needs acknowledgement. Mr. Vijay Thadani, the current chairman not only reviewed the work of this committee but encouraged it to complete its work and present the findings. The other members of the CII Committee made worthwhile suggestions during the review process. A very special mention must be made of Ms. Shabda Birfani Bedi from Azim Premji Foundation, the guide and mentor to the conduct of this entire project as well as Saloni Singhal of CII, who worked virtually as a member of the Committee, helping arrange for funds for the project and also contributing to the thought processes. CII has done considerable service to the cause of Education by coming out with this report.

It is my fervent hope that the report on Professional Preparation of Teacher Educators serves the crucial purpose it is meant to – being a catalyst towards Capacity Development in the Education Sector.

ACKNOWLEDGEMENTS

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The principals, teacher educators and M.Ed. students of the 20 Teacher Training Institutes included in this study in Delhi, Gujarat, Maharashtra, Kerala, Pondicherry, and Tamil Nadu

International Projects Team, Polytechnics International New Zealand Limited

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Research Team at Education Quality Foundation of India

EXECUTIVE SUMMARY

The National Curriculum Framework for Teacher Education (2009) voices the need and importance of professionally trained teacher educators (TEs). The quality of teacher educators is central to the quality of teacher education and hence, professional preparation of teachers. Further, teachers are the most important factor that determines the quality of school education. Therefore, the content and pedagogical inputs provided by teacher education necessitate, teacher educators who are qualified and competent to provide these inputs. Hence, the competency, skills and professional development of teacher educators deserve to be a matter of national concern and calls for a deeper discourse. Various policy documents, such as NCF 2005 and NCF TE 2009 have also echoed a need for such a comprehensive study.

Keeping in line with the above context, a research study was initiated with the aim to

- Understand the existing and needed profiles, skills and competencies of the TEs
- Suggest curricular inputs for improving the standard of the existing TE preparation course.

Table 1 | Salient Features of the Study

Timeline	Study design and development of tools: February-April 2012 Tool pilot testing: April-May 2012 with 15% sample size Data collection: May- July 2012
Sample respondents	20 Teacher Training Institutes | IASEs, Faculties of Education, DIETs 98 respondents | Principals, Teacher Educators, M.Ed. students 7 respondents | Experts from SCERTs, NUEPA, UGC
Study tools	Semi-structured questionnaires, customized for principals, Teacher Educators, M.Ed. students, and experts
Discussion	With Principals, Teacher Educators, M.Ed. students, and experts
Secondary Study	Analysis of documents in context of the study Policy documents: NCF 2005, NCF TE 2009, Teacher education Curricula (both B.Ed./M.Ed.): syllabi, lesson plans, case studies
Analysis	Content analysis of each response in the context of the questionnaire Derivation of indicators from responses studied and frequency distribution

Key findings:

The study covered following broad areas: profile of the TEs; skills and competencies; effectiveness and gaps in the current M.Ed curriculum. These include core areas of (a)teaching-learning process and assessment mechanisms, (b)classroom management, (c)research, (d)internship; (e)management of teacher education; and (f)strategies for the use and adoption of technology in teacher education.
The highlights of the findings are presented below:

- There exists a variation in salary, job security and career growth available to TEs in Government vis-a-vis private teacher education institutes.

- Teacher education is marked by lack of clear-cut professional standards and performance indicators for TEs. Private institutes in smaller towns fail to provide professional growth opportunities to TEs. These factors restrict high academic achievers from joining the profession.
- The expected skills and competencies of the TEs derived from the TE curriculum and analysed from the responses, are listed below.
  - Mastery in subject and teaching methodologies
  - Transactional skills
  - Adaptability and innovation in teaching & assessment
  - Communication skills
  - Sensitivity to understand adult learners' psychology and socio-cultural issues
  - Leadership and motivational skills
- Inspite of being the qualifying criterion to become a TE, M.Ed. degree does not necessarily equip TEs with requisite skills and competencies. Greater focus on teacher education and compulsory modules on teaching, assessing and guiding adult students is required.
- There is a need for stage-specific preparation of teacher educators, with a specialization in elementary, secondary and higher secondary teacher education at the M.Ed. level.
- The emphasis of the M.Ed. curriculum is more on theory of advanced teaching methodologies and assessment techniques. To a great extent, the curriculum does not integrate theory with skill-building, through practicum.
- There is a need to have more synergy between the Apex Education Bodies formulating the Policies and the teacher training institutes. The teacher education programs need to be more responsive to policy changes at the school education level, through periodic seminars, workshops and in-service programs.
- The Curriculum modification needs to be more dynamic and continuously aligned to the changing Government Policies and the needs on the ground.
- Technology infrastructure development at teacher education institutes (at the B.Ed. and M.Ed. level) is minimal and sporadic. Even where technology infrastructure has been developed, scale and depth of usage depends upon the personal motivation levels of the educators. The awareness on and about the effectiveness of use of technology in teacher education has not matured. Consequently, need for continued support in usage of technology, and its requirement in capacity building is not experienced by the TEs.
- In comparison with school education sector, which has seen remarkable development in curriculum integration of technology through interactive content, software and other devices technology integration in teacher education has not happened. Teacher education lacks curriculum integration of technology; technology is taught more as a subject. No technology integrated content is available on teacher education.
- Even where technology infrastructure has been developed, need for maintenance has not been felt due to the fact the infrastructure is not old enough that might require serious maintenance. Since the study was conducted primarily in the urban areas, the basic pre-requisite for use of technology, such as availability of electricity, internet was not perceived as a hindrance.

The study, which is one of the first of its kind, was explorative in nature and done with a small sample of TEs and STs. It is a step towards understanding the current system for TEs' preparation and the areas that need strengthening –

a. The quality of the existing pool of TEs

b. Building high level of competencies and skills in new TEs

The findings and recommendations of the study aim to stimulate (a) in-depth research on various aspects of the TE preparation process (b) initiate dialogue among policy makers, educationalists, academia, private sector and not-for-profit sector. Conclusions and recommendations presented in the study inform policy makers and practitioners to initiate a consultative process for developing competency standards for TEs. The study is also expected to direct stakeholders in teacher education to create better institutional mechanisms and systemic enablers to achieve excellence in the profession.

Chapter 1

BACKGROUND, RATIONALE and OBJECTIVES

BACKGROUND, RATIONALE AND OBJECTIVES

1.1 Background

The institution of education is an integral part of society. Quality of learners depends on quality of teachers who constitute the backbone of the entire education system. Teachers have a vital role to play in character building of the students and also preparing them to succeed in their lives. This aspect of education cannot be more relevant than in current times as the demands of knowledge economy driven by experimentation, innovation and creativity require education systems to equip students with different skills. Thus, it is crucial for teachers to be well-rounded and equipped with necessary expertise so that they can build required knowledge and skills in the students to enable them to succeed in a world of tremendous opportunities and also challenges.

That said, the role of teacher educators becomes even more important. Teacher development is possible only if there is a robust program for developing teacher educators. Teacher educators are key actors in the space of quality education.

"When the general consensus is that teachers are the most important in-school factor influencing the quality of their pupils' learning, it seems appropriate to assume that teacher educators are an important factor influencing the quality of the learning of student teachers. The issue of the quality of the teacher educator then becomes an issue of paramount importance." (Snoek et al 2010)[1]

Teacher educators are people *"who provide instruction or who give guidance and support to student teachers, and who thus render a substantial contribution to the development of students into competent teachers"* (Koster et al., 2005)[2]. They are ones who are responsible for quality of teachers that go into schools that in turn directly impacts quality of education.

Hence, it is worth the while to explore the factors that contribute to the professional development of teacher educators and examine quality requirements and specific competencies for them[3]. According to (Smith, 2005)[4], *teacher educators' professional knowledge is expected to be more comprehensive, rich and extensive, both in terms of the specific subject matter taught and in relation to areas such as didactics, pedagogy and psychology ideally. Therefore, Teacher Educators have a dual role: to be producers of knowledge on education, learning and teaching, and to be educators of teachers.*[5]

1 Snoek M, Swennen A, van der Klink M: 'The quality of teacher educators in the European policy debate, Actions and measures to improve professionalism of teacher educators'. Paper presented at the ATEE Conference 2009, Palma de Mallorca.

2 Koster, B., Brekelmans, M., Korthagen, F. A. J., & Wubbels, T. (2005) Quality requirements for teacher educators in Teaching and Teacher Education, 21(2), 157- 176.)

3 Australian Journal of Teacher Education, Volume 36 | Issue 4 Article 2 2011 Characteristics and Competencies for Teacher Educators: Addressing the Need for Improved Professional Standards in Turkey (Servet Celik) Karadeniz Technical University

4 Smith, K. (2005) Teacher educators' expertise: what do novice teachers and teacher educators say? In Teaching and Teacher Education, 21(2), 177-192.)

5 Report of a Peer Learning Activity in Reykjavik, Iceland 21-24 June 2010- 'The Profession of Teacher Educator in Europe'

In the United States, several professional organizations – the Association of Teacher Educators (ATE), the National Council for Accreditation of Teacher Education (NCATE) and the Teacher Education Accreditation Council (TEAC) – have defined requirements for teacher education faculty but neither the ATE nor the TEAC standards explicitly state what formal requirements, in terms of degrees, certificates and diplomas, are required of teacher educators. In many other countries in the world as well, there exists sparse policy documents defining the qualifications, skills, and competencies that the teacher educators should possess. Many member countries in the European Commission have recognized that there is a need to define the essential qualifications, skills, and competencies of the teacher educators and are steadily moving towards defining these through policies.

(Report of a Peer Learning Activity in Reykjavik, Iceland 21-24 June 2010- 'The Profession of Teacher Educator in Europe')

Studies in countries like Nepal, Bangladesh, Turkey and Samoa have brought to light various underlying issues related to teacher education and teacher educators. Collectively all raise concerns about the ongoing in-service training of the teachers. Undoubtedly, teacher education and teacher quality are closely connected to teacher educators.

"The profile and the role of a 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 educators in translating educational intents into practical action" (G.L. Sharma, 2012)[6].

The above statement places the role of teacher educators above that of teachers and as being the primary driver of instilling context based tenets into the teaching profession.

1.2 The Indian Context

The country faces a shortage of qualified teachers. The situation is grave when the requirement is for teachers who have adequate subject knowledge and pedagogic training. Experts in the field of teacher development believe that this is primarily due to the lack of capacity-building in existing institutions and the absence of a strategic competency framework that can help the teachers cope with the dynamism of the system. In this context, they believe that new thrust areas, such as acquisition of innovation and higher order thinking skills that are intrinsically related to teacher development need to be strengthened. Thus, preparation of the teachers at the pre-service level and their continued improvement at the in-service level are areas of key concern. In this context, the role of TEs becomes critical.

6 Sharma, G.L. July, 2012 National Curriculum Framework (NCF) For Teacher Education. Indian Streams Research Journal Volume 2, Issue. 6, July 2012 ISSN:-2230-7850

A recent analysis by the Department of School Education and Literacy under Union Ministry of Human Resource Development emphasises need for improving the institutional capacity for teacher trainers. Only 892 institutions with an approved intake of 28,957 students are recognized by the National Council for Teacher Education to prepare teacher educators. Around 35% of faculty positions are vacant in central universities, 50% in 19 state universities, and 40% in 14 others. The ministry is pushing for an increase in capacity to reach an intake of 40,000 students.

(Ramya, M HRD ministry plans changes in teaching and curriculum. TNN, Chennai. Times of India e-Newspaper. April 6, 2012)

The Master in Education (M.Ed.) program is the dominant post-graduate programme in education offered by Indian Universities and accepted as a pre-requisite for becoming a TE. The program caters to a wide range of academic and professional needs. The graduates of this program are employed by the Boards of School Education, Directorates and Inspectorates of Education, Schools, SCERTs, Teacher Training Colleges and Institutes as teachers, curriculum experts, evaluation experts, population education experts among other roles[7]. As a compulsory course required for becoming a TE, M.Ed. has not responded to the dynamic and changing needs of school education like educational administration and management, development of curriculum and teaching-learning materials, emerging ICT integrated pedagogy, newer forms of assessment like CCE to name a few.

As a background to the study, a brief description of all policy documents impacting teacher education is presented below.

Summary of policy documents impacting teacher education

1964-66 – Kothari Commission highlighted the fact that in order to make professional preparation for teachers effective, teacher education must be brought into the main stream of academic life of universities on the one hand and the school life and education department on the other.

1978 – NCTE first curriculum framework emphasized need for developing task oriented M.Ed. curriculum with scope for practical work in education.

1983-85 – Chattopadhyaya Committee suggested that for teacher education to be made relevant to the roles and responsibilities of the 'new teacher', the minimum duration of training for a secondary teacher should be five years following the completion of Class XII. Reiterating the need to enable general and professional education to be pursued concurrently, the Commission recommended an integrated four year program.

1985 – Yashpal Committee recommended that the content of the program should be restructured to ensure its relevance to the changing needs of school education. The emphasis in these programs should be on enabling teacher trainees to acquire the ability for self-learning and independent thinking.

7 NCF TE 2009, Page 78-79

1993 – National Policy of Education, Program of Action (POA) mandated a centrally sponsored Scheme of Restructuring and Reorganization of Teacher Education to create a sound institutional infrastructure for pre-service and in-service training of elementary & secondary school teachers and for provision of academic resource support to elementary and secondary schools. The Scheme, launched in 1987, had the following components:-

- Setting up of District Institutes of Education and Training (DIETs).
- Strengthening of Secondary Teachers Education Institutions and making them into Colleges of Teacher Education (CTEs) and Institutes of Advanced Study in Education (IASEs).
- Strengthening of State Councils of Educational Research and Training (SCERTs).

2005 – NCF position paper declares current teacher education practices inadequate in preparing teachers and teacher educators. NCF states quality teacher education as the backbone of entire education system and teacher educators as responsible for change and calls for a more comprehensive look into the entire process.

2009 – NCTE recommended integration of study and observation of a Teacher Education Institution, as a part of M.Ed. course practicum. Observation, study, instruction and reflection conducted during internship were expected to fulfill this need.

NCTE norms committee suggested inclusion of an internship in a college of education to impart teacher education specifically to the M.Ed. program.

2010 – The NCTE Draft Syllabus for the M.Ed. program suggests a theory dominated course with 1000 marks in 6 Core and 4 specialization courses, 200 marks for dissertation and viva-voce. Only 50 marks are allotted for field experiences and practicum. Constructivist and child-centred pedagogical studies, the integration of ICT, emerging assessment techniques, life and professional skill development, theory-practical interface are some of the key areas that are not included in the draft. The draft syllabus lays more emphasis on theory.

The UGC proposed an M.Ed. course with core papers in philosophical and social foundations of education, psychological foundations of education, methodology of educational research alongside specialization areas. Options for specialization included - 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 and yoga education.

Although M.Ed. is generally accepted as the requirement, for a teacher educator qualification, the program currently offered in most universities is simply an extension of the B.Ed. program. It is seriously lacking in input focused on the preparation of teacher educators, secondary or elementary. The NCF Position Paper on Teacher Education, observes that the existing programs of teacher education have become programs of liberal studies in education in many universities and are "woefully inadequate" in facilitating a deeper discourse in education 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[8].

2012 – More recently, recommendations made by the Justice Verma Committee, propose a paradigm shift in the way pre-service teacher education is perceived in India. Having provided a detailed account of the underlying issues of the pre-service teacher education, the commission states that pre-service teacher education suffers from poor quality due to lack of prestige given to it as a professional preparation stage of teachers, due to poor quality of the entrants in the teacher training institutions, and the lack of rigorous method of preparation with a robust teacher education syllabus.

The report states that teacher education is isolated from the university system, thus lacks connect with the developments taking place in the school subjects, making the teachers ill-equipped to teach the students. The Commission brings out insufficiency of the M.Ed. curriculum as a preparatory program for teacher educators. The M.Ed. program is generalist in nature, and does not offer subject-oriented and stage-specific teacher education.

The commission voices the need for redesigning teacher education programs. It recommends a robust teacher education and teacher educators' preparation curriculum, with stage-specific, subject-specialization in teacher education in M.Ed. program. Duration of the proposed program is two years – this will provide trainees an opportunity to branch out into specializations that are connected with schools. There is also a proposal for four-year integrated teacher education courses after 10+2 in the report. Teacher education needs to be more practice-oriented, with more elements of field work, internship, practicum and research with interdisciplinary elements on school subjects. The commission suggests that each teacher education institute is affiliated with a school that serves as a laboratory for the STs and TEs to practice teaching skills and methodologies. Teacher education curriculum needs to be responsive to suggested changes in various policy documents such as RTE Act, NCF 2005, NCF TE 2009, etc.

According to the Committee, equal emphasis should be given to continued professional development of teachers through in-service training programs. It is important to upgrade teachers' knowledge of the subject they teach, and fine-tune teaching skills and competencies, and generation of knowledge and awareness of recent developments in the society to continually benefit children with this knowledge. Assessment of training needs is required for appropriate training programs. It is also required to prepare appropriate training curriculum and materials, and develop TEs with skills and competencies for imparting in-service training. Training need to include all in-service teachers, both in government and private schools and should be made mandatory for teachers to attend in a stipulated time-frame with some tangible incentive for attending these training programs.

8 Position Paper of NCF 2005. National Focus Group on Teacher Education for Curriculum Renewal. Ver 2.4. NCERT

Institutional regulation is required in establishing, recognising and review of the teacher education institutions. Role of NCTE as an advisory and regulatory body needs to be strengthened for effective management of teacher education. The report emphasizes the fact that institution should be recognised for each individual course they run, as against a blanket recognition for the entire institution, to ensure proper management of each course.

A more robust inspection schedule and plan for teacher education institutions is recommended too. Regular quality assessment of institutions on a fixed plan is need of the hour. Along with NCTE, more regulatory and advisory role is envisaged for SCERTs and DIETs, for both pre-service and in-service training.

There is a need to create more institutions in the geographically remote and disadvantaged areas and develop institutional capacity towards this. There is a need to develop strong institutional coordination among various agencies responsible for teacher education, state governments, universities, UGC, and distance education council.

The commission recommends constitution of a central committee under NCTE to enable the setting up of structural mechanism and processes for instituting a robust teacher education system in India.

It is against the back drop of all the above enactments, that the proposed study was instituted to understand the gap areas and challenges facing the professional development of teacher educators, the current resistance to change and provide recommendations for improvements.

1.3 Objectives of the Study

Broadly, the study has the following objectives:

- Identify professional skills and competencies of TEs as perceived by the educators themselves, as required by policy mandate and analyse the shortcoming against requirements of the job.
- Identify gaps in pre and in-service teacher education curriculum and its implementation in developing relevant skills and competencies among TEs. The focus in this study is primarily on pre-service preparation.

1.4 Key Research Questions

Based on the study objectives, the following research questions were drawn up for pre-service and in-service professional preparation of TEs.

1.4.1 Pre-Service

- What are the components of the current curriculum that prepare teacher educators for their job that essentially counts on them being lead educators?
- Is the curriculum relevant to the requirements of today's teacher educators? If not, what are the shortcomings?
- Is there a need for new input to the curriculum? If so, in which areas – theory, skills, practice, field experience, research?
- Does the curriculum foster innovation and the development of higher order thinking skills?
- What is the nature of teaching-learning process in these institutions?
- What is the resultant profile of the teacher educator at the end of the course? Does it align with the requirements?
- What are the current assessment procedures? Are they adequate to certify content, pedagogical and professional proficiency? Are changes required?

1.4.2 In-service

- How often do teacher educators attend professional development courses?
- What is the nature of these courses? Do they need restructuring?
- What opportunities do teacher educators have to grow continually in knowledge acquisition and professional competence as well as in their practice?

The study inquired into the curriculum, policies and practices relevant in the context of teacher educators' professional preparation. The survey was conducted with 20 teacher training institutes in nine states through semi-structured qualitative questionnaire, customized for TEs and M.Ed. students. Responses were elicited to understand TEs' professional and skill profile vis-à-vis their professional requirements. M.Ed. curriculum was studied and mapped to see if innovative and tested teaching and learning methodologies are being introduced. The responsiveness of Pre-service and In-service TE training programs to the wider changes were also studied in the context of the current government driven policy changes including the new school level teaching-learning and assessment initiatives.

Details on sampling and research methodology are attached in Annexure 1.

1.5 Limitations of the Study

Some limitations of the study are listed below:

- **Absence of standards for professional competency:** In the absence of specific standards for professional competency of teacher educators, the curriculum was mapped to the competency indicators that were developed from responses elicited from TEs as well as from national and international published data sources. Researchers used deductive reasoning and judgment to derive list of skills and competencies based on roles and responsibilities mentioned in the policy documents, such as NCF 2005 and NCF TE 2009.
- **Reaching out to all geographic regions:** due to time and administrative constraints, the study did not cover all geographic regions in the country. Regional challenges, if any, are not dwelt upon.
- **Reaching out to rural areas:** Issues relating to number of teacher training institutes in rural areas, quality of infrastructure, and teaching-learning practices in those institutes - are not dealt in detail.
- **Apprehension on sharing issues:** Respondents were apprehensive about sharing issues and challenges faced by them. They were less forthcoming and skeptical about the study objective and implications. Researchers observed that this impeded quality of the data collected.
- **Availability of respondents:** With exams and vacation schedule, the window available for data collection was very narrow.

The current study can be best described as a pilot or an exploratory study on Teacher Educators' professional preparation. The initiative is timely, for quality in education is priority within the education sector. Learner centric teaching-learning and continuous and comprehensive students' assessments have become a mandate for both central and state board schools. Quality indicators for Teacher Education have been developed by NAAC.

Chapter 2

FINDINGS AND ANALYSIS

FINDINGS AND ANALYSIS

In order to situate and appreciate nature of answers provided by respondents, it is important to understand their qualification, motivations for choosing teaching as a profession so on.

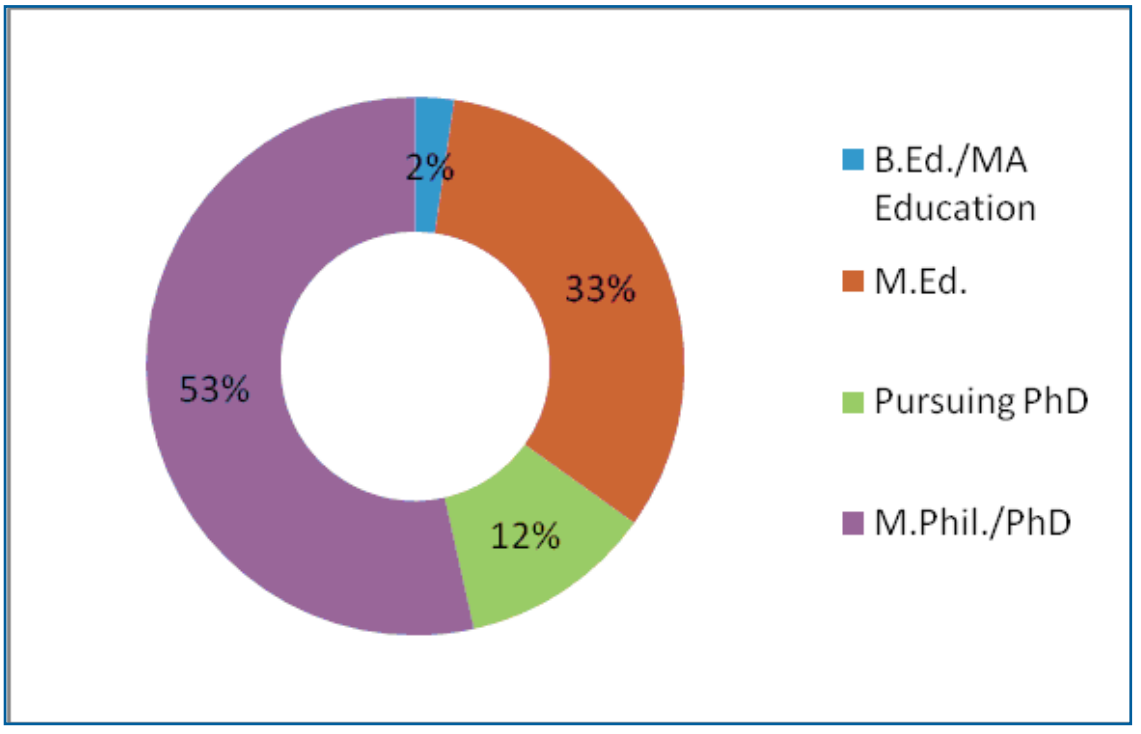
This section profiles the respondent base before analysing the findings.

2.1 Profile of the Respondents

2.1.1 Qualification

NCTE guideline mandates M.Ed. as the basic entry level criterion for TEs as lecturers. All respondent TEs in B.Ed. / M.Ed. Colleges and DIETs held M.Ed. degree. Only two TEs from a private primary teacher training institute were B.Ed. In addition to B.Ed., these TEs also had M.A in Education, not considered a professional qualification, and does not qualify them to become TEs in B.Ed./M.Ed. Colleges. As seen in Figure 1, 53% respondents had an M.Phil, or a Ph.D degree and 12% were pursuing a Ph.D.

Figure 1 | Qualification of respondent TEs



Therefore, the respondents selected for the study were found to be mostly qualified per NCTE mandate.

2.1.2 Reasons for profession choice

- **Respect and prestige:** For all TEs, respect and prestige associated with teaching was a primary motivator for choosing this profession. The older and more experienced TEs felt that their profession helped them to serve society as well, provide continuous opportunity to learn, earn and give them a good social standing. When compared with other career options available after completing M.Ed., the senior TEs articulated that teacher education was the most prestigious opportunity available to them and hence they chose to take it.
- **Service to society:** 56% TEs perceived teaching as a service to society and nation building. TEs felt a sense of accomplishment in their profession, for impacting STs directly and students indirectly.
- **Work-life balance:** For 65% female respondents, the profession enabled them to have a good work-life balance. Flexible timing, good number of holidays, relatively less work pressure (compared with other corporate, business jobs) increased opportunity for family time.

> During visits to one of the prominent teacher training institutes, it was found that a TE's daughter was a regular visitor every afternoon. She waited for two hours at the institute everyday, to be with her mother till evening and later left for home together. During her time in the institute, she is allowed to access and use the institutes' resources like drinking water, washrooms, computer labs, and sometimes visits the library. In the absence of other support system at home, the female TE felt that this was the safest option for her daughter. She appreciated this aspect of her profession.

- **Life-long learning:** An essential part of a TEs job is interacting with adult learners – that is the would-be teachers. This engagement can be very different from the exposure that they get in their M.Ed course where they teach students. The maturity and experience of the adult teachers enriches a TE's knowledge and pushes them into learning continuously. Thus, life-long learning becomes an essential part of a TE's job description that currently is happening informally and through personal initiatives – there is no systemic push for this.

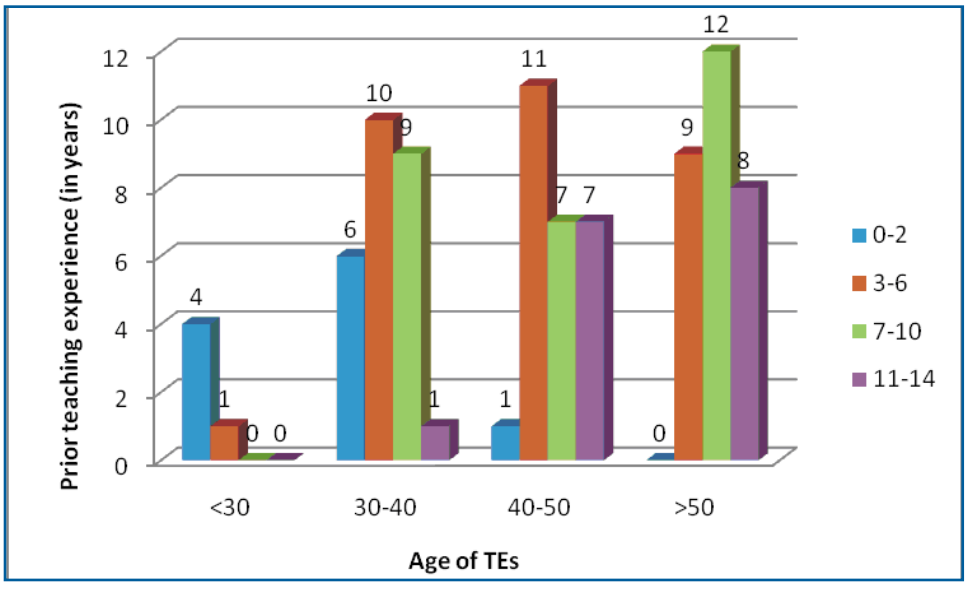
Figure 2 shows the "pull" factors of the teacher education profession as articulated by the TEs.

Figure 2 | "Pull" factors for Teacher Education Profession

2.1.3 Prior school teaching experience

80% TEs in B.Ed./M.Ed. colleges and 91% TEs in DIETs, had prior school teaching experience. School teaching experience varied between 2 to 14 years for these respondents. For the remaining TEs, practice teaching sessions in school, as mandated by the B.Ed. course, is the only school teaching experience that they had.

Figure 3 | Prior School Teaching Experience of TEs



2.2 Pre-Service Teacher Education

The Study findings were analysed based on following issues:

- Work profile and responsibilities
- Growth and career advancement opportunities available to them
- Skills and competencies perceived as most important for their profession
- Curriculum of teacher education programs
- Pedagogical aspects concerning the TE curriculum
- Assessment techniques
- Classroom management techniques
- Practical study and Internship
- Research in teacher education
- Alignment with global trends

2.2.1 Work Profile and Responsibilities

- **Recruitment and work allocation:** Any vacant position/new openings for Teacher Educator at the teacher training institutes are filled by M.Ed./ M.Phil/ PhD candidates with the specific specialization aligned to the position needs at an institution / University.

> In rural private institutes situated at socio-economically and geographically disadvantageous locations, norms regarding subject specialists having to teach courses, is not strictly followed. Understandably this stems from non-availability of qualified faculty as well as low pay. The quality of training provided to the students, is therefore compromised.

- **Changes in work allocation:** Subject and course allocation occasionally changes as per changing needs of teacher training institutions. These could be temporary vacancy created due to retirement of a subject expert or temporary absence from work for a particular teacher educator or inter-University transfer of teacher educators.

2.2.2 Opportunities and Career Growth

About the opportunities available within the teacher education program and their future, the respondents shared issues related to the available professional opportunities within the teacher education program in general, and TEs in particular.

- **Lack of awareness about emerging trends in education:** In semi urban and rural areas, there is a lack of awareness about the diverse nature and scope of education sector and ways to tap these opportunities.
- **Absence of campus recruitment:** Teacher education colleges prepare students for a career in education, including that of a TE. However the absence of campus recruitment, devalues the course vis-à-vis other professional courses.

- **Status of private institutes:** Lower salaries, lack of job security and lack of career growth in private teacher education institutes, were cited as reasons for low motivation among the teacher educators employed in private institutes.
- **Lack of opportunities to test research output:** Currently, there are no mechanisms in the teacher training institutions that provides a platform to test and validate education related ideas / outputs / models as developed by TEs or STs. This impedes the motivation to do further research.
- **Lack of uniform professional standards:** TEs are not aware of performance appraisal indicators employed by their Institutions that are used to assess them. Assessment is not a continuous process and is not linked to student feedback. Since promotion largely depends on seniority, there is a lack of interest in trying new practices or introducing innovative ideas in their teaching-learning process.

These factors deter meritorious students from choosing teaching as a profession.

2.2.3 Perceived skills and competencies

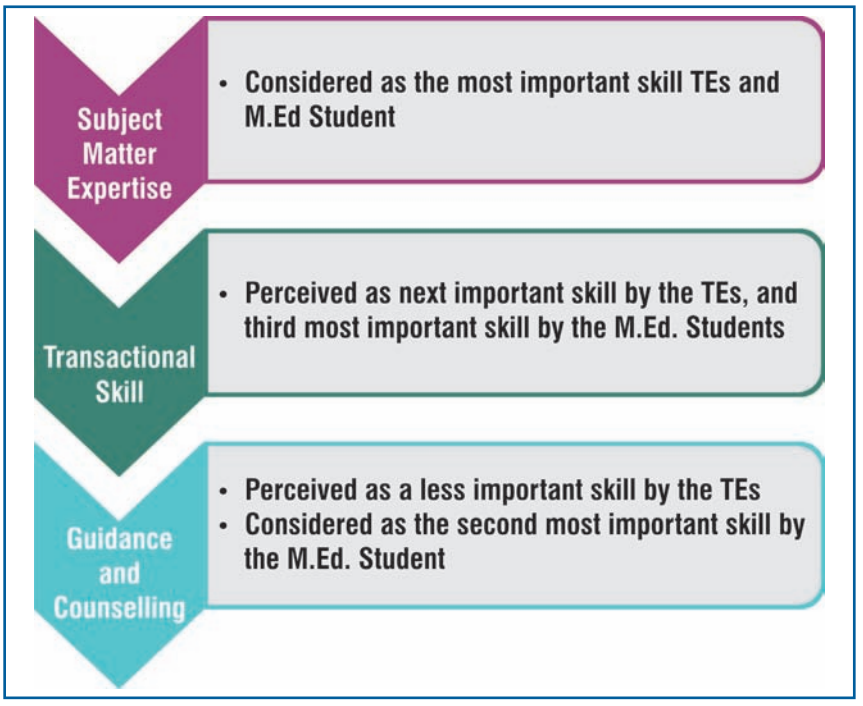
The most important skills and competencies for TEs as perceived by TEs and M.Ed. students are core teaching skills, interpersonal skills, leadership and motivational skills, listed in Table 2.

Table 2 | Important Skills and Competencies for TEs

Core Teaching skills	Expertise in subject and teaching methodologies
	Transactional skills
	Adaptability and innovation in teaching & assessment
Interpersonal skills	Communication skills
	Sensitivity to understand adult learners' psychology, and socio-cultural issues
	Sensitivity to handle students with diverse needs and abilities
Leadership and motivational skills	Ability to identify and motivate students' growth potential
	Ability to guide adult-learners- in curricular extra-curricular and co-curricular activities
	Ability to promote and handhold through innovations

Figure 4 showcases skills and competencies required of TEs. TEs and M.Ed. students identified "Expertise in subject matter" as the most important skill, followed by "transactional skills" and "ability to guide and counsel STs".

Figure 4 | Expected Skills and Competencies of the TEs



Sensitivity towards socio-economic, cultural background: 41% TEs felt that students' holistic development was the responsibility of a teacher. To them, it was important to be sensitive to the students' socio-economic background and gender, factors that are likely to affect students' classroom performances. However, this component does not feature in the training plan of TEs. This issue becomes specially importent in the wake of the RTE Act.

A senior teacher educator at DIET Gandhinagar did her PhD on "Understanding the socio-cultural factors related to the performance of married teacher trainees". The study found that the married female STs face many socio-cultural challenges. Along with college assignments, they also took care of household chores. The study recommendations highlight the need for greater sensitivity and empathy among TEs, to address the academic needs of this group.

2.2.4 Teacher Education Curriculum

90% TEs agreed that the changes introduced in the school system require a change in the work profile, skills and competencies of the TEs. Though in-service trainings are organised for TEs, there are no clear policies and processes for selecting TEs for training. Selection is largely based on convenience and availability of TEs, not on training needs, willingness or preparedness to attend training. This reduces the possibility of capacity building benefits reaching trainees with the real needs.

Importance of greater collaboration of the teacher education program and the school system was first recognized in 1960s. The concern has echoed in the Kothari Commission (1964–66), the Chattopadhyaya Committee (1983–85), the Yashpal Committee Report (1993) and more recently by National Policy of Education (1985), NCF 2005, NCF TE 2009

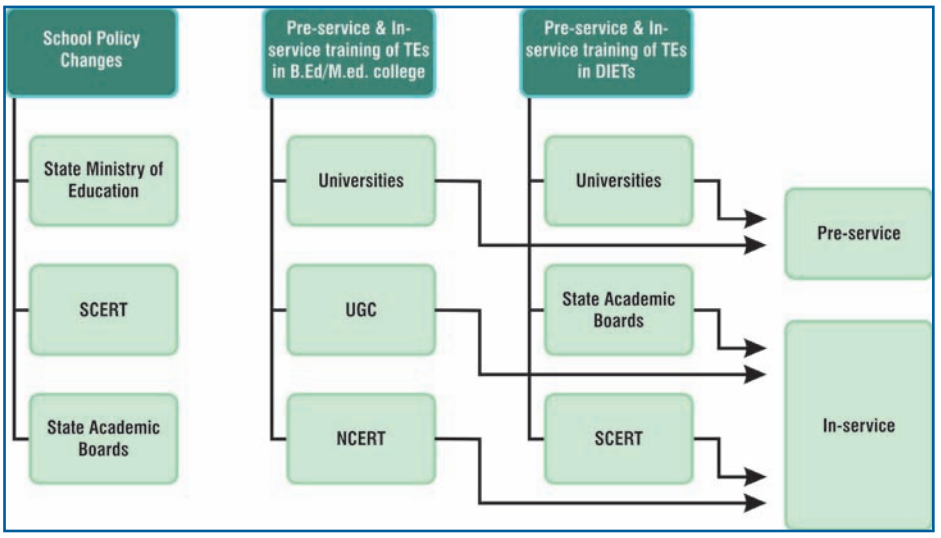
- TEs said that there is a considerable time lag between education policy changes introduced at the school level and those brought to the training of TEs with regard to knowledge of policy and related curriculum and pedagogical changes.
- 56% TEs were unable to list or recall perceived challenges in current school teaching. In addition, they expressed lack of preparedness to counsel STs on emerging challenges in schools. This further limits the STs' understanding and preparation to handle professional challenges in schools.

> Continuous and Comprehensive Evaluation (CCE) was introduced in the Central Government schools. State Governments are steadily moving towards adopting this technique of evaluation, aligned to the principles of NCF 2005, 2009. It is mandatory for teachers to learn and practice "assessment for learning" and "assessment of learning". While few teacher education colleges have integrated CCE in their B.Ed. curriculum, and have trained TEs, a large majority of the teacher education colleges are yet to integrate it.

- Institutions responsible for policy changes at school level and those for TEs' pre-service and in-service training are different. This leads to a lack of coordination between new policy changes that are effected and reflection of same in TE training. Lack of mechanisms for greater institutional coordination between various organizations is a matter of concern that was brought out during discussions by respondents from SCERT, NUEPA as well as TEs.

Figure 5 provides a description of agencies responsible for TEs' pre-service and in-service training:

Figure 5| Agencies responsible for TEs' Pre-service and In-service training

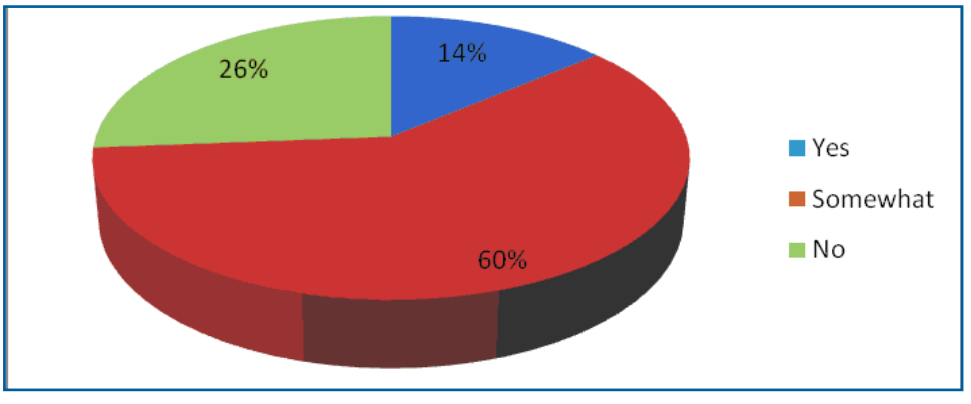


The lack of any communication pipeline between policy making institutions and those that deliver training to STs and TEs is a matter of deep concern.

- The scenario plays out better with regard to institutional coordination between SCERTs and DIETs. Discussions with the SCERT officials and DIET TEs highlighted the fact that there was some level of preparedness amongst the primary school teachers and teacher-educators to address changes in the school education curriculum. In this case, SCERT is responsible for both – modifications in the primary school curriculum as well as in-service training of the teachers (primary schools) and TEs (in DIETs).
- Sometimes in-service training conducted by the DIET for TEs precede changes introduced in the school curriculum - therefore they are able to train STs in time. Consequently, courses taught at the DIETs are more responsive to changes in school curriculum.

Figure 6 shows the extent of TEs' preparedness to address changes in school education or university Teacher training curriculum. That the largest category should fall under "somewhat" prepared does not augur well for these institutions.

Figure 6 | Extent of TEs' preparedness to address curricular changes at school curriculum



TEs were of the view that policy changes at the school level should continuously feed into the courses offered at the teacher training institutions.

TEs also pointed out that there are many variations in the M.Ed. curriculum across institutions. Common components in most M.Ed. programs include the following:

Theoretical components:

- Sociology and philosophy of education.
- Education in contemporary society.
- Advanced educational psychology.
- Teaching methodologies.
- Elective courses on educational management, teacher education, and counseling

Practical components:

- Practical understanding of the theory courses through project-work
- Dissertation and research under supervision of TEs or supervisors.

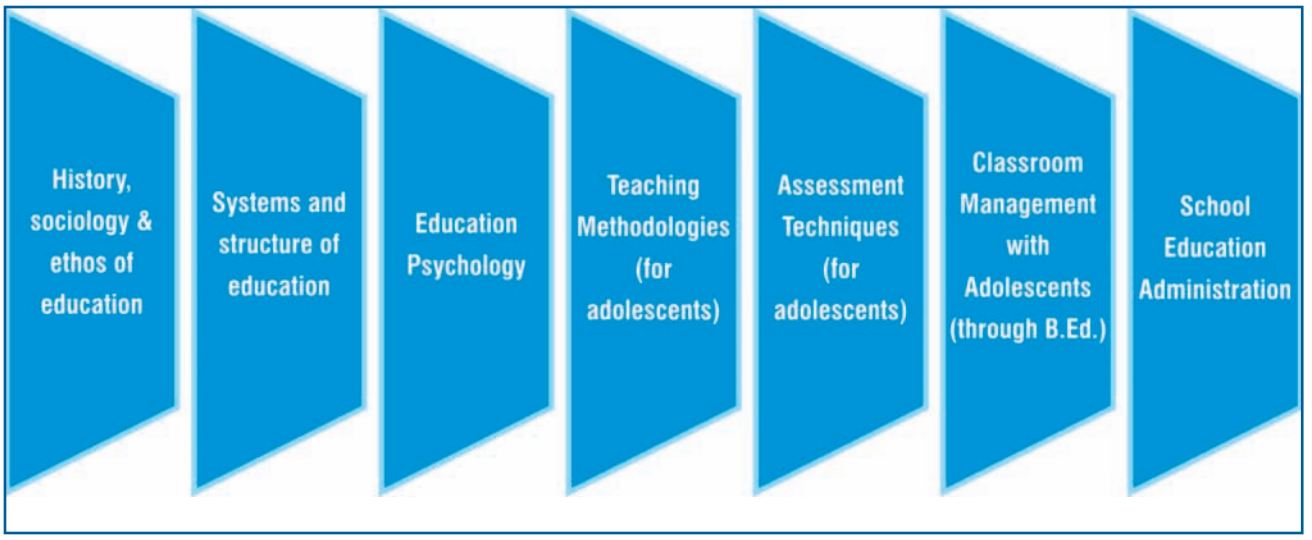
The varied components include:

- Global context of education.
- Advanced assessment and evaluation.
- Education technology & e-learning.
- Practicum with B.Ed. Colleges.
- Educational management/ administration.
- Population education.
- Adult education.
- Yoga/ Physical education.
- Elementary education.
- Teacher education.
- Special/inclusive education.

The M.Ed. curriculum is not adequate to cover all B.Ed. subject areas – this could be a huge lapse in the system and become detrimental to the efficacy of running these courses. For instance some compulsory B.Ed. courses like Instructional Systems, Educational Evaluations, Assessment Techniques and School Management, are optional at the M.Ed. level and so we may face a situation where a TE will have to train STs in these subject areas without having been trained in them.

TEs outlined the most useful components / courses of the M.Ed. curriculum – these are shown in Figure 7. TEs felt that these components equip them to develop the essential skills and competencies required of their profession.

Figure 7 | Useful Components of M.Ed. Curriculum



TEs identified specific areas within the M.Ed. courses that need critical review:

- **Adult learner psychology:** 80% TEs expressed that the current M.Ed. course has inadequate emphasis on psychological aspects of adult learning. Consequently, M.Ed. students graduate with inadequate knowledge and skills to address specific issues relating to a classroom of adult learners.
- **Internship and Practice teaching:** Internship and/or practice teaching in B.Ed. institutes is not a part of M.Ed. curriculum. Therefore even after completion of M.Ed., trainees lack experience in teaching adult students. TEs expressed the need to integrate these components for an all-round development of future TEs.
- **Guidance and counseling:** 69% respondents expressed the view that mentoring STs on "decision making for classroom environment", was of utmost importance. However, the M.Ed. curriculum failed to fully equip TEs with these skills.
- **Stage-specific preparation of TEs:** During discussion with TEs from DIETs, RIEs, and officials at SCERTs, the need for stage-specific preparation of TEs, with a specialization in elementary, secondary and higher secondary teacher education surfaced as a requirement to be built into TE training. This focused training, they felt, would prepare them to guide their students and future teachers more effectively.

> A senior teacher educator at Kadi Sarva Vishwavidyalaya mentioned that no academic course prepares one to become a TE. It is the right attitude that is required and that comes with a great deal of practice, individual motivation and personal choice. It is a matter of right attitude not mere aptitude.

- **Technology integration in curriculum:** 73% TEs expressed that the technology integration in M.Ed. curriculum, including classroom practices was inadequate. TEs lacked pedagogical skills to use technology for teaching, and therefore felt constrained in further preparing student-teachers with "techno-pedagogical skills"[9].

TEs at a Teacher training college in Rajasthan said that proliferation of ICTs has enabled students to access information from multiple sources. Teachers and TEs need a level of preparedness to continuously address student queries. Students turn to alternate sources of information in the absence of satisfactory answers from TEs. Therefore, it is a challenge to sustain student attention in classrooms. TEs felt that the teacher education courses should be responsive to this changing nature of the student community and address it by revisiting the curriculum, transactional systems and assessment techniques at the B.Ed and M.Ed. levels. According to them, self-study and self-assessment at M.Ed. levels should be explored to enhance higher order cognitive and thinking skills among student teachers.

2.2.5 Pedagogy

TEs shared their concerns and called for a critical review of the pedagogic aspects in the M.Ed. curriculum.

- **Lack of experiential learning:** TEs and the M.Ed. students were of the view that M.Ed. curriculum is theoretical to a great extent, and covers essential components of pedagogic skill development in the classroom only.
- **Lack of experiential approach in teaching:** 80% TEs expressed that M.Ed. curriculum emphasized more on theory. Teaching methodologies were introduced through lecture method. 76% M.Ed. students expressed that they had a theoretical understanding of innovative teaching methodologies and personalized learning. Administrative and infrastructural challenges and non-availability of time restricted integration of experiential approach in both teaching and learning. As STs are not being taught using an experiential approach, they are not fully equipped to implement experiential methodologies as a future TE.
- **Lack of teacher education pedagogy:** 80% TEs pointed out that the current M.Ed. curriculum does not focus on adult learner pedagogy. Consequently, M.Ed. is primarily an entry-level criterion to become a TE and cannot be completely termed as the "preparatory curriculum" for TEs.

Teacher educators at Kadi Sarva Vidyalaya were of the view that the integration of experiential learning in their B.Ed. course has transformed TEs and students' understanding of the teaching-learning process. Experiential learning has been adopted in two-ways- (i) as one of the teaching methodologies taught to the student-teachers; and (ii) as a teaching methodology practiced by the TEs. This methodology follows an approach, wherein concepts are categorized, and introduced to student-teachers in the order of increasing difficulty. The teaching-learning process adopted by Kadi Sarva Vidyalaya has been elaborated in the Appendix 2.

9 Techno-pedagogy is defined as electronically mediated courses that integrate sound pedagogic principles of teaching/learning with the use of technology.

- **Lack of focus on elementary teaching pedagogy:** DIET TEs shared that they lacked training in pedagogical aspects essential for training elementary school teachers. The training modules comprised of achieving basic literacy and numeracy; establishing foundations in science, mathematics, geography, history and other social sciences. They observed that the lack of inclusion of various pedagogies to be adopted in elementary classrooms has implications on their own preparedness to train STs in addressing challenges that arise while teaching elementary level school students.
- **Lack of skill-building activities through simulation/ real life situations:** Discourse with TEs revealed that STs are predominantly taught teaching methodologies theoretically. Simulation or real life practice sessions are not emphasised when topics such as "levels and pace of understanding" are introduced in classroom. This creates disconnect between what they learn in classroom and various classroom situations they experience in their profession later.
- **Training on interactive content development:** 31% TEs in B.Ed./M.Ed. colleges and 79% TEs in DIETs expressed a need and willingness for further training on interactive content development aligned to the teaching-learning needs in classroom. This training would reduce their dependency on pre-set content from books, and enable them to create content and modules better suited to their teaching style and students' needs.

2.2.6 Assessment

Assessment is an integral part of instruction, as it determines whether or not the goals of education are met in scholastic as well as co-scholastic areas. However comprehensive assessment techniques do not find their way in TE curriculum. In this context three levels of assessment are needed:

1. Assessment techniques for scholastic and co-scholastic areas that needs to be built into the syllabus to be taught to the STs.
2. Assessment of scholastic and co-scholastic skills of Student Teachers.
3. Assessment of teaching skills of Student Teachers.

Current assessment techniques in the M.Ed. curriculum are built to assess performance in written examinations only.

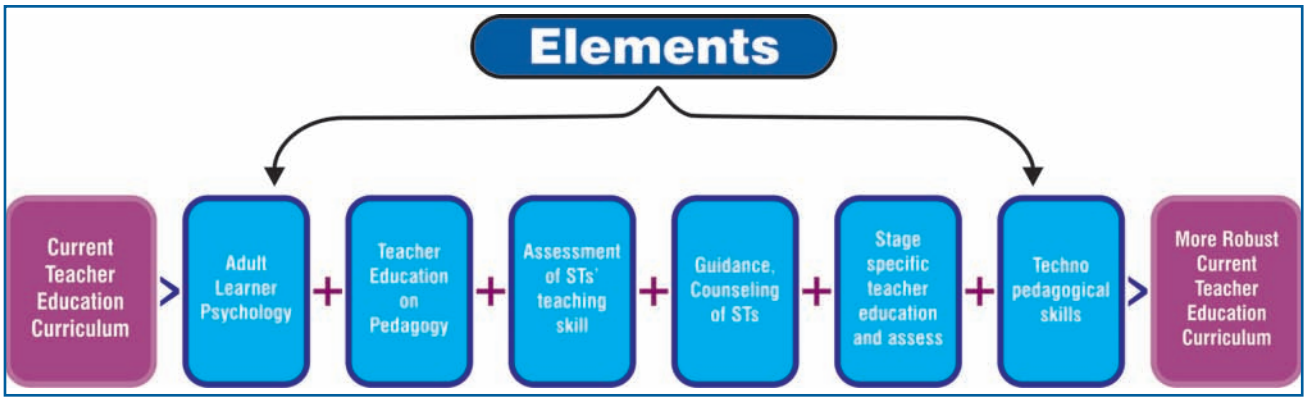
TEs shared their thoughts about areas where assessment techniques need critical review:

- Techniques to assess co-curricular and extra-curricular activities: Assessment techniques taught at B.Ed. / M.Ed. courses focus on assessment of scholastic areas and not co-scholastic areas. NCF 2005, NCF TE 2009, recognises the importance of co-curricular and extra-curricular activities as critical to a child's overall development. Training teachers and TEs on assessment of co-curricular and extra-curricular areas will indeed help in assessing students' holistic development and enable teachers to adapt their teaching styles accordingly.
- Assessment of adult-learners: The M.Ed. curriculum also does not include elements of assessment for adult learners as a result of which TEs are ill-equipped to assess the trainee teachers.

- Skills to identify student abilities: The assessment techniques, currently followed, at M.Ed. level, focus largely on assessing theoretical knowledge. Prevalent assessment techniques in teacher training institutes do not assess the STs' classroom teaching skills. Consequently, it fails to prepare TEs with skills to assess STs' ability to teach.
- Lack of research on assessment: 77% TEs said that assessment and evaluation mechanism cannot be the same for students of varying age groups. Students in a class may have different learning styles and special needs – therefore have to be taught and assessed differently for their holistic development. B.Ed. /M.Ed. curriculum do not have specific elements that are designed to engage STs in developing innovative and new assessment techniques. Hence TEs and teachers are less prepared and less responsive to use "assessments for" and "assessment of" learning.
- Continuous assessment and evaluation practice: Unlike schools, student-teachers are not assessed holistically through their project work, dissertation, and internships. Summative evaluation is carried out to gauge theoretical knowledge of STs. TEs expressed their interest in continuous and comprehensive assessment of the student-teachers, at the B.Ed. and M.Ed. level too.

  Figure 8 presents a snapshot of some of the gap areas in the M.Ed. curriculum, as identified by the TEs. Integration of these elements will create a more robust TE curriculum, thereby increasing the preparedness of TEs, to further train the student-teachers.

Figure 8 | Elements for strengthening M.Ed. Curriculum



2.2.7 Classroom Management

Insufficient elements on classroom management: B.Ed. curriculum has elements on classroom management that are not taught at the M.Ed. level. This has implications at two levels:

a. TEs are not prepared to handle critical issues in adult learner classrooms (which are very different from secondary school students taught by B.Ed. trainees)

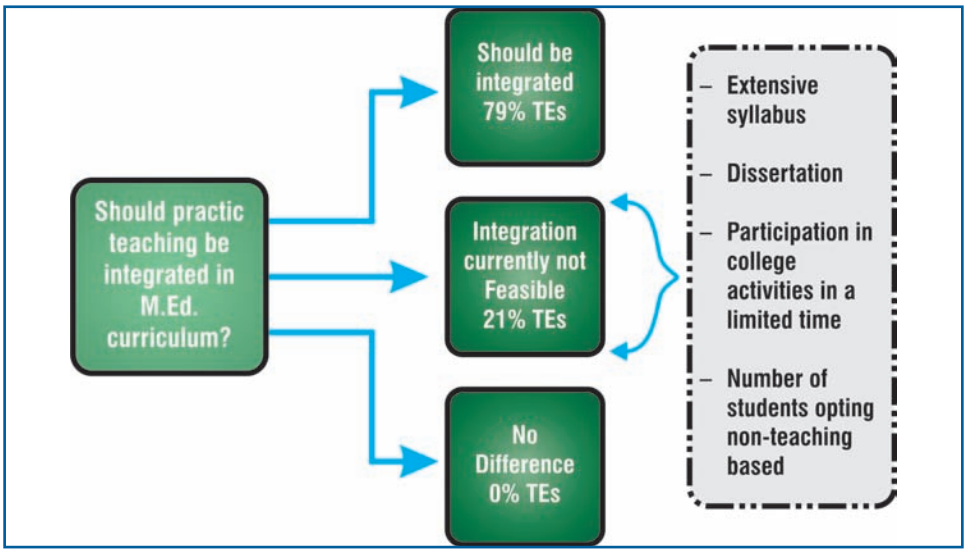
b. TEs are ill prepared to guide their STs (B.Ed. level) on classroom management and prepare them to address critical student issues at school level.

2.2.8 Practice and Internship

- **Usefulness of practice teaching:** All M.Ed. students felt that practice teaching sessions, like the ones in B.Ed. course, should be introduced. They said that practice teaching of a longer duration would provide them hands-on understanding of various aspects, including, classroom facilitation, time management, assessments and other administrative responsibilities given to them.
- **Lack of practicum at M.Ed.:** All respondents, TEs and M.Ed. students, unanimously voiced the absence of practice teaching and internship at M.Ed. level in most institutions. According to them, introducing practicum on teaching and/or mentoring B.Ed. students will sharpen one of the much needed skills in teacher educators.

Figure 9 presents TE opinion on integration of practice teaching in the M.Ed. course. 79% of TEs expressed that M.Ed. course should include practice of teaching/mentoring B.Ed course trainees. However, some TEs expressed that it should be optional at M.Ed. level, owing to number of STs who do not opt to be a teacher educator. 21% of them expressed an opinion that integrating practice teaching as a compulsory element with the existing curriculum and time table might not be feasible owing to extensive syllabus, dissertation and participation in college activities in a limited time period. Also, students with interest in administration and content development do not necessarily require to have a teaching experience.

Figure 9 | TEs' Opinion on integration of practice teaching in the M.Ed. course



2.2.9 Research

- **Lack of scope for research and innovation:** 80% TEs expressed that the M.Ed. course design should have scope for research and innovation. Currently, M.Ed. students write dissertations and study educational research as one of the elements. TEs expressed the need to engage STs in research on all the elements studied to the M.Ed. course, and encourage innovation in education.
- **Lack of Research-orientation:** 83% M.Ed. students said that there is lack of research orientation in the M.Ed. curriculum. The current curriculum largely provides them with the basic theoretical understanding about teaching practice as per learners' needs – their level, pace and learning styles. Need for deliberations and engaging STs in research on innovative and effective teaching and learning methodologies, was expressed by respondents.
- Research qualification as an entry-level criterion for TEs: 69% TEs and 81% M.Ed. students expressed that an M.Phil or Ph.D. should be the entry level criteria for a TE. This would bring in TEs with greater research orientation that can further add to STs' capacity for research.

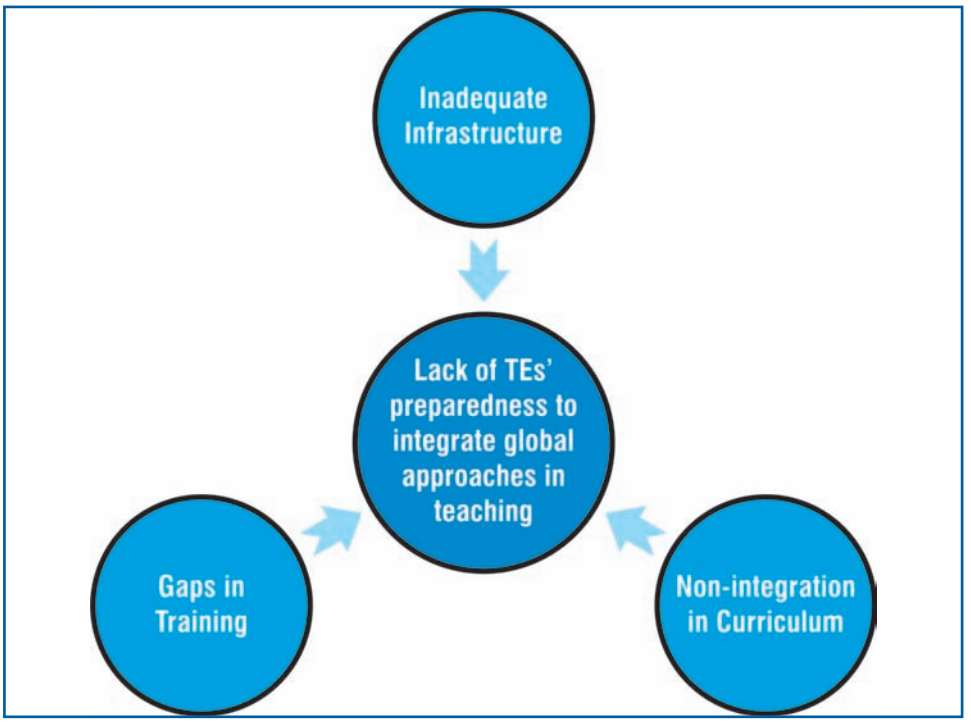
> Since the national agencies have made it mandatory for all the teacher educators to have a research qualification for entry into a teacher education institute, there is an upsurge in pursuance of doctoral programs. A large percentage of the doctoral thesis, it has been observed are written on existing research topics. Only a small percentage is engaged in innovative research, leading to new theories, models and methodologies. Though a blanket generalization would be incorrect, the profession as a whole suffers due to this lackadaisical attitude of many in the profession.

2.2.10 Alignment with Global Trends in Teacher Education

- **TEs in B.Ed. / M.Ed. Colleges:** 86% TEs in B.Ed./M.Ed. colleges revealed that they were aware of the global trends in teacher education. They indicated that project-based learning[10] and evaluation, student-centric learning, research-oriented syllabi, skill-based activities and inclusion of technology in the teaching-learning process were some of the global approaches in the teacher education that they would like to see incorporated in their own learning.
- **TEs in DIETs:** Awareness about global practices in Teacher Education is found to be low among the TEs in DIETs. 76% DIET TEs had little awareness about the global approaches to learning. 15% DIET TEs mentioned they were aware of the global approaches. 9% TEs did not respond to this question. Figure 10 describes factors affecting TEs' preparedness to integrate global approaches in teaching.

10 Project-based learning (PBL) is an instructional method and teaching-learning methodology that organizes learning through project work. According to the definitions found in PBL handbooks for teachers, projects are complex tasks, based on challenging questions or problems, that involve students in design, problem-solving, decision making, or investigative activities; give students the opportunity to work relatively autonomously over extended periods of time; and culminate in realistic products or Presentations. (Thomas, John W (2000). *A Review of Research on Project-Based Learning*. The Autodesk Foundation)

Figure 10 | Factors affecting TEs' preparedness to integrate global approaches in teaching



- Need for training on global approaches: Even though the TEs mentioned that they were aware of the global approaches, very few could articulate how approaches were applied in real classroom situations. TEs expressed a view that lack of proper training, infrastructure and extensive syllabus discourages them from using these in teaching-learning processes, even if they wanted to use these.
- 31% TEs were trained with some of these teaching techniques through in-service training programs. It was revealed that a large number of such training programs including training of master trainers are conducted by private research agencies / NGOs under the banner of corporate social responsibility initiatives. While they recognize these in-service trainings as being effective, TEs expressed the need for greater proactiveness in modification of the teacher training curricula to integrate these practices in teaching-learning process.
- M.Ed. students: 79% M.Ed. students were largely unaware of the global approaches in teacher education. M.Ed. students mentioned that neither the B.Ed. nor the M.Ed. syllabus provides any opportunity to study global practices in teacher education.

A senior teacher educator in Mangalmay Institute said that training of next-generation teachers needs to be of an international standard. In today's world, when cross-country mobility has increased, teachers trained in innovative approaches from other parts of the globe would be better suited for global professional mobility.

2.2.11 Curricular Modification

- **Agencies responsible for curricular modification:** Modification of B.Ed. / M.Ed. curriculum is largely determined by the University to which the college is affiliated. Respondents shared their thoughts on the fact that teacher education colleges largely follow syllabus aligned to the NCTE guidelines but curricular practice depends upon a University and / or specific college.

  The Board of Studies under the Faculty of Education is responsible for the curriculum modification at the institution level, though the authority within the institutes may vary from one to another. This modification happens in consultation with the Principal/Dean, senior faculty members and some external experts on education. Experts from the NCTE regional state chapters are consulted before introducing curricular changes.

- **Frequency of curriculum review:** Most institutions carry out a curriculum review every two years based on the emerging issues/ innovations in teacher education practices, and school level policy changes introduced by the government.

  The frequency of curriculum modification varies across institutions. The process entails changes in certain sections, including addition, deletion, or redesign to align within an available teaching slot. Major revamp of the curriculum does not happen very often.

- **Constraints in frequent curricular modification:** According to 90% TEs, it was not always possible to change/modify the core syllabus due to administrative issues. There are a number of authorities involved in the process of revamping the curriculum and a number of approvals are required to make curricular changes. The process is long-drawn, and takes a long time. These factors constrain the whole process of curricular change.

  Government orders on curricular changes are expected to be followed with immediate effect. To address the situation, institutes develop specific training modules, and organise seminars to cater to the capacity building needs of TEs. Frequent in-service trainings are preferred by the teacher training institutes as compared to the frequent curricular modifications.

> Pune University revised both the B.Ed and M.Ed. syllabus in 2008 to integrate use of ICT in teacher education. This was introduced after the University organised extensive training on the use of technology for teacher training. They adjusted few existing sections to integrate these modules and modified the evaluation mechanism accordingly.

2.3 ICT and Teacher Education

During discussions, TEs acknowledged the effectiveness of technology in teaching-learning in enabling academic excellence, quality instructions and leadership in a knowledge-based society. They unanimously expressed their keenness toward technology usage in teaching and learning. 53% respondent TEs had undergone in-service training on technology integration in teaching and learning. They perceived technology as an enabler for faster assimilation of concepts by learners.

TEs expressed a concern that despite the National Policy on ICT in School Education gaining momentum, many teacher training institutes lack clear-cut strategies for adoption and usage of technology in teacher education.

- Infrastructure: 72% TEs from the B.Ed./M.Ed. College and 89% from the DIETs shared their view on technology infrastructure in the teacher education colleges being minimal, sporadic and not state-of-art.
- Usage: Even where infrastructure exists, TEs' are familiar, but not experts in independently using technology for teaching and learning. Use of technology is restricted in being taught as a subject, and not as teaching-learning aid. Technology for teaching learning primarily depends on the motivational level of the TEs.
- Integration in curriculum: Few Institutions and Universities have integrated techno-pedagogy and use of ICT in their academic syllabus. However, lack of technology based teaching-learning aids, interactive content and devices in teacher education institutes prevent them from translating pedagogy into practice.

> Vidya Bhawan GS Teacher Training College has been steadily working towards developing technology infrastructure for students' overall development as future teachers. The college has computer lab with 20 computers. The computer lab is also used to provide in-service technology training for school teachers. The audio-language lab with tape recorder and headphone has provision for both Hindi and English language training. Plans are underway to replace this lab with state-of-art audio-language lab with digital audio technology and microphone for speech training. The large lecture rooms are well equipped with microphones and audio systems. The geography lab is equipped with both traditional and modern-day equipments. TEs put forward that the lab exercises have been crucial in bringing greater clarity among the students, thus leading to their better performance. The college has been accredited with NAAC A certification for infrastructure and student performance. It has been conferred a CTE status.

Integration of technology in teacher education has proved to be effective at many teacher training institutions worldwide. Case study on Pune University elucidated in Appendix 3, presents the way TEs and STs use Web 2.0 and other technologies for projects, as a productivity tool, as a tool for communication, collaboration, administration and research.

2.4 In-service capacity building of TEs

- **Refresher courses:** UGC organizes a wide range of refresher courses for B.Ed. and M.Ed. TEs, through Academic Staff Colleges and Universities.

  These courses cover wide ranging themes covering current teacher education practice, changes in the teacher education and school curriculum. The central focus is on enhancing quality in teaching and assessment.

- **Orientation programs for TEs at B.Ed. / M.Ed. colleges:** This is the most important and compulsory in-service training for TEs, at the time of joining a college of education. This covers practical aspects of teaching and working with the future teachers.

  Every teacher educator has to undergo one orientation course and two refresher courses to be eligible for their first career advancement. Attendance in two more refresher courses is mandatory for the second career advancement. Additional training is optional. TEs can chose to attend these subject to availability of seats.

- **Orientation programs for DIET TEs:** SCERT organizes orientation programs and in-service teacher trainings for DIET TEs. The DIET TEs go through a detailed orientation program, emphasizing various aspects of teacher education and classroom management at primary school level.

- **Lack of needs assessment for training:** Discussions with private training agencies revealed that needs assessment is not carried out to find specific in-service training needs of TEs. In-service training programs are generally pre-decided and TEs are often randomly chosen and nominated to participate.

- TEs expressed their support for in-service trainings as being useful because these give them timely insight into various changes taking place in schools and teacher education curriculum. At the same time they put forward a view that if need assessment surveys are conducted periodically, to understand the training needs of the TEs, the training programs would bring greater benefit.

> A trainer with extensive experience on in-service technology training shared that the training of trainers' (TOT) model is not always effective in training TEs when (a) The selected Master trainer TE, lacks the attitude and aptitude expected of a Master Trainer (MT) (b) when these MTs perceive their importance and engagement for repeat trainings would decrease, if they effectively transfer knowledge and skills to other TEs through cascade training.

Chapter 3

CONCLUSION & RECOMMENDATIONS

CONCLUSION & RECOMMENDATIONS

This study was instituted to probe into the current state of teacher education programs in the country. In this part of the section questions that were posed are revisited with answers from the research that was conducted.

There are however, many areas of concern that emerged from discussions that took place with current TEs and STs. These need to be addressed. Such concerns are outlined in the following section where follow-up action of perhaps a deeper probe may be required to initiate measures to resolve the existing situation. The recommended measures may also be subject to further research before they are taken up for action. All of this needs to be done with urgency.

3.1 Conclusion

3.1.1 Pre-Service

- What are the components of the current curriculum that prepare teacher educators for their job that essentially counts on them being lead educators?

  There are no specific components focused on preparation of teacher educators. It is assumed that training on school education and child learning theories is adequate training to equip teacher educators to become lead educators. The study highlights the fact that the entire teacher education curriculum, both at B.Ed. and M.Ed. level, focuses on preparing school teachers. Components that are essential for teaching future teachers and handling adult learners - such as adult learner pedagogy, assessment and evaluation, skill-development of teaching adult learners, are missing in the entire teacher education curriculum.

  Teacher education is just one of the many subjects that constitute the M.Ed. syllabus and it is not compulsory for teacher educators to select this subject study in order to become a teacher educator. Consequently, the pattern that emerges is that the teacher educator is one among equals set apart by just another degree of accomplishment – the M.Ed degree. Should this be acceptable as a norm?

- Is the curriculum relevant to the current requirements of teacher educators? If not, what are the shortcomings?

  Teacher educators need to have knowledge of teacher education and school education and classroom management. Review of teacher curriculum shows that the curriculum serves the needs of student teachers – those who will be stepping out into schools to teach children but is deficient in serving needs of TEs who do not go to schools but train student teachers to do so. The TE curriculum therefore needs to step up the rigour in many aspects of education to fortify TEs to deliver learning to STs. The TE curriculum should have components for building TE' skills as well as providing for ST' requirements.

  Also, the curriculum once finalized falls short of become adaptable to change taking place at school level because of the infrequent and somewhat unstructured processes that grip the system of action, overhaul and change.

- Is there a need for new inputs in the curriculum? Which areas – theory, skills, practice, field experience, research?

  There is an urgent need for input in all areas.

  Theory - there is need to revitalise theory components with cutting edge research and research methodologies that are relevant for 21st century learning. Teachers, before students in the classroom, need to acquire skills that will keep them abreast of latest education technologies, theories and worldwide research. Only when teacher educators learn to learn continually can they influence student teachers to do so who in turn will manage learning in classrooms at the school level in similar manner. Outdated methods beget outdated methods – hence learning theory components that are not quite relevant in current learning scenarios, will institute teachers who are not quite current in their education theory knowledge and skills. This will need a curriculum for TEs that enhances:

  – Pedagogical skills
  – Assessment techniques
  – Practical skills
  – Research orientation

- Does the curriculum foster innovation and the development of higher order thinking skills?

  The TE curriculum does not foster innovation and development of high order thinking skills. Curriculum focuses largely on disseminating knowledge and not on construction of knowledge through research, self-study, discourse and application.

- What is the nature of teaching-learning process in these institutions?

  Teaching-learning process in majority of the teacher education institutions is teacher-driven and emphasizes knowledge acquisition through theoretical knowledge. Research, innovation and learning through practice are not encouraged in teacher education.

- What is the resultant profile of the teacher educator at the end of the course? Does it align with the requirements?

  This question could be answered in two parts –

  First, there is no profile of a teacher educator that is documented in any policy document – the only requirement is that of a TE to be qualified with a M.Ed degree. To that extent, most teacher educators interviewed in for this study were qualified. Second, and more significant question is whether the qualifications are in alignment with requirements of the job that a TE has to perform. The answer to this may be negative, but only in the realm of "gut feel". There is no documented evidence of there being a shortfall in terms of a review against requirements.

  A good start maybe to begin identifying skills that a TE should possess to do the job and then match those up to the skills delivered by the TE curriculum. A revamp can then be done basis the shortfall.

- What are the current assessment procedures? Are they adequate to certify content, pedagogical and professional proficiency? Are changes required?

  Assessment procedures followed in teacher education institutes assess primarily the theoretical knowledge of the STs. Assessment procedures fail to assess teaching and pedagogical skills, and professional proficiency of the STs. This requires a major overhaul in the assessment procedures that TEs follow and must be looked at in entirety.

3.1.2 In-service

- How often do teacher educators attend professional development courses?

  Professional development courses are organized in case of policy changes in school and in university teacher education. TEs are expected to attend at least 3 such courses, one of which is an orientation course prior to joining the profession, and the other two are required for their career enhancement. Frequency for attending a course is not known and TEs are not encouraged to attend additional courses beyond the mandated ones.

- What is the nature of these courses? Do they need restructuring?

  The orientation course of the TEs is effective in introducing them to the principles of the profession. Other professional development courses equip them with the changes in the school education. The professional development scenario is devoid of skill-based, knowledge enhancement courses. An urgent restructuring of these courses is indeed required.

- What opportunities do teacher educators have to grow continually in knowledge and professional competence as well as practice?

  There are not many systemic opportunities for professional development for teacher educators. Training occurs at sporadic intervals, often organized regionally with lack of national level input which makes the TE training relevant within a local sphere. There is also no push within the system for TEs to get into research or further study. What, if any, should this be?

3.2 Recommendations

The study highlighted some gaps in teacher education programs in the country. These recommendations were drawn up from the findings that were analyzed for the gaps that currently exist in the teacher education system. Since these stem from discussions with teacher educators and student educators and some officials of the education bodies, they are listed here as recommendations that need validation through a deeper probe. This is not to undermine the importance of the highlighted issues; it is to bring them under the scanner for immediate reform.

- Teacher Education curricula should be standardized for all institutions by policy mandate. M.Ed. courses are often run off private institutions that are not housed within university campus – making all such courses follow the same curricula will infuse stability and uniformity across programs. M Ed curriculum should have flexibility to run credit based courses.
- Include elements of classroom management, different pedagogies involved in handling different types of classrooms / age groups, education technology pedagogies and subject related pedagogies. If this means that the timeframe for an M.Ed program needs to be increased, then that should be looked at. Assessments methods and processes need to be clearly defined to ensure measurement of competences that could culminate in global certifications
- Teacher educators need to have experience in teaching / training in addition to the M.Ed degree which is currently the only qualification required to become a TE. Devoid of field and work experience outside of the institute they may not be the best fit for educating future teachers. It is recommended that TEs have some years of work experience in addition to the M.Ed qualification. The experience may be drawn from various professions – teaching, corporate, business – the important thing is to have a TE who wants to become one by choice and can bring to this qualification experience from different walks of life.
- Introduce research for TEs. TEs should be encouraged to enroll for research within 5 years of acquiring a TE qualification. During these 5 years TEs could be encouraged to conduct 'action research' within their sphere of work. They in turn, must encourage STs to conduct action research too – this could become an integral part of a teachers' problem solving psyche at school where action research conducted on locally identified problems will go a long way to finding "best fit" answers. This will enable TEs to expand their world view on research and introduce quality in their programs. It will also provide TEs with an opportunity to understand where they would like to place their research during the five years that they teach as TEs. Perhaps during the five non-research years they teach as assistant TEs? Focus should be on active research.
- The study concluded that technology is hardly used in the B.Ed. or M.Ed, programs. With the government giving ICTs importance in schools through various programs, it is extremely important to have teacher educators who understand technology in the context of education and its use in the classroom – 'use scenarios' and what will work in different contexts. These educators should be leading technology programs in schools around their institutions. TEs should be trained in interactive content development.

- Building robust in-service programs for all – the role of technology for this cannot be undermined. Teachers are likely to find more traction for programs that are delivered at their work place. These programs can be certified by level of proficiency and policy could look at making it mandatory for every teacher to complete a level within 3/5 years. Thus 6-8 levels of such programs should be created. TEs too must attempt to pass all levels over a shorter time span as part of their professional development plan.
- In order to raise profile of TEs it is recommended that State and National Level annual awards for TEs should be instituted to attract better talent.
- There is an existing National Teacher Educator Portal that should be energized by NCTE/ NCERT and help teacher educators actively share ideas, knowledge, and latest developments in the field. It should also be the place where policy changes are announced and quickly transmitted to all TE institutions.
- A National Institute for R & D in Teacher Education can be built that promotes research and development of curricula, pedagogy, new methods and ideation. This institute can also become the basis for M Ed curricula development. Since M.Ed curriculum has to follow evolutions in school education closely, a National Apex Teacher Education Council consisting of representatives of MHRD, State Governments, UGC and NCTE must be set up to monitor and recommend a renewed M Ed curriculum every 3 years. UGC/ NCERT should upload revisions in M Ed curriculum regularly on the Teacher Educator Portal so that all Teacher Educator Institutions can lift content from there on a need basis to remain updated. M Ed curriculum should have special modules on ICT, Adult Learner Psychology, Communication training and Content Development.
- There is an urgent need to create a National Teacher Education Network that links IASEs, SCERTs, and DIETs which uses a combination of internet and video technologies to quickly transmit changes in policy, newer training techniques and changes in in-service teacher training curriculum and pedagogy to Teacher Educators via internet and video conferencing.
- It is important that Teacher Educators Curriculum provides space for pedagogical concerns about value education i.e. understanding value education, concept, its need and objectives, it's delivery mechanism [how to help child imbibe values], assessment method and tools since one of the important aims of education is to help children become good human beings and that can happen when TEs understand this and transmit it to student teachers
- Ensure Alignment of Curriculum - often curriculums for teacher educators, teachers and students are developed entirely independent of each other. If there is no alignment then how do we train our teachers, how do our teachers teach and how do our children learn. It would seem as if different entities are all working on different tracks towards different goals. We also need to develop national professional standards for teachers, teacher educators and teacher education institutions and ensure all government and private Teacher Education Institutions including SCERTs offering teacher educator training programs are assessed against the professional standards laid down by GOI. A system of continuous education and skill-upgradation of teachers should be backed by strengthening institutions such as the SCERTs, DIETs, BRCs and CRCs that are required to extend support to teachers. These institutions and particularly the SCERTs and DIETs should have (i) an adequate and well-qualified faculty; and (ii) requisite budgetary support to reach all schools within the district. DIETS should get into M Ed training and be affiliated to Universities.

- Challenges in implementing teacher education in rural, semi urban areas are different in terms of infrastructure available, social factors, learner attitudes and ability to use technology. A second study in this area as a follow up is the need of the hour. Also states have different education needs, so geographical diversity analysis and challenges existing in different regions also need to be studied later in greater detail.
- Last but not least there should be a known career progression for teacher educators. Once a teacher educator always a teacher educator may not be motivating enough for everyone to do a job well. Should teacher educators be considered for the post of Principal of a school? Should they be absorbed in ministries of education to help with policy implementation? The answers are not known yet, but in order to build a skill-set, preserve it and use it for maximum impact, progression is needed and that itself can be a very motivating journey. GOI should encourage State Governments to create a separate pool of teacher educators as recommended under the XII Five Year Plan, and initiated by States like Tamil Nadu.
- Finally, recommendations made in Justice Verma Committee report for revamp of teacher education in 2011 should be put into action with urgency. Each of the above mentioned points become an area of further inquiry.

APPENDICES

CASE STUDIES

APPENDIX | CASE STUDIES

For the purpose of the study, case studies were collected from the select teacher training institutes visited and also from secondary sources. Special initiatives and programs related to increasing preparedness of teacher trainers have been outlined.

- Centralized educational administration and successful PPP model- Andhra Pradesh State Council for Higher Education
- Effective use of experiential learning as a teacher education methodology- Kadi Sarva Vishwavidyalaya, Gandhinagar.
- Effective use of technology for teacher education- University of Pune
- Multiple institutions' collaboration on developing and administering a postgraduate program on elementary teacher education- hosted at Tata Institute of Social Science, Mumbai
- Practice oriented MA in Teacher Education course- Open University of Sri Lanka
- Use of technology and experiential project based learning for teacher quality improvement- PINZ-Asian Development Bank-Ministry of Education, Bangladesh project on Total Quality Improvement of Teacher Education, implemented in Bangladesh

Appendix 1 | Case study on Andhra Pradesh State Council for Higher Education

Creating path-breaking standards in educational administration and PPP model[11]

The Andhra Pradesh State Council for Higher Education (APSCHE) is the first of its kind government agency in the country, set up as per the recommendations of National Education Policy (NEP), 1986. It primarily serves as a coordination and liaison body between the University Grants Commission, the State Government and the State Universities. The Council primarily coordinates and determines standards in institutions of Higher Education, Research; and Scientific and Technical Institutions in accordance with the guidelines issued by the University Grants Commission from time to time. APSCHE makes efforts to provide relevant curriculum to equip students with knowledge, skills, and attitudes to prepare them for 21st century knowledge economy.

Specific to teacher education, APSCHE conducts statewide B.Ed. Common Entrance Test (EdCET) for entry into one year B.Ed. course and all candidates aspiring to enroll into B.Ed. course have to qualify in EdCET. The candidates are admitted on merit basis.

APSCHE is also responsible for recognizing and regulating teacher training institutions in the state. It is authorized to recommend curricula for different programs offered in these institutions. APSCHE provides the curricular framework and structure of the B.Ed. course, and specifies its essential components, such as methods of curriculum transactions, total number of working days earmarking those for various activities like teaching on instructional methods and project work, teaching practice and internship, classroom instruction, and co-curricular activities etc. All these aspects of the B.Ed. curriculum are uniform in all colleges of education in the state. APSCHE also provides curricular framework for the M.Ed. course and maintains uniformity in all postgraduate programs of education across the state. Under the APSCHE umbrella, 17 Universities follow the uniform standardized B.Ed. and M.Ed. curriculum in the entire state. However, Universities are free to formulate their own program implementation schedule which they execute through the College Academic Councils. These are within the curricular framework recommended by APSCHE.

This cohesive structure of teacher education has ensured a standardization of qualification across the state which works towards intra-state mobility of education professionals. This cohesiveness also ensured that any initiative to modify and improvise the teacher education curriculum would be systematically implemented across all the colleges of education in the state.

APSCHE associated with the worldwide technology major Intel in developing and implementing a unified curriculum for ICT in teacher education. Built on a Public-Private-Partnership (PPP) model, the collaboration worked towards integration of education technology components in the common "Core B.Ed. Teacher Training Curriculum" and implemented technology aided lessons in B.Ed. The initiative supported the teachers to learn to use Project Based Learning in the classrooms. To cater to the students learning in regional language Telugu, Telugu Akademi translated and published the curriculum as a textbook in Telugu for the B.Ed. course.

11 Source: Siddiqui, M A. A Study of the Best Practices of the Intel® Teach Pre-Service Program in India. April 2008

Apart from changes in the core curriculum, APSCHE initiated various capacity building activities across various stakeholders in the Teacher Education. University faculty, principals, TEs, student-teachers, M.Ed. and PhD students were equipped with innovative technical and pedagogical skills. Principal Leadership and Technology Forums, Refresher courses and Enhancement Workshops were conducted regularly to update them with innovative practices in Education. APSCHE-Intel collaboration running for last 11 years has received many accolades including the award for Best Government Sector Initiative in Education at World Education Summit in 2012.

Further, APSCHE started organizing Job Fairs, to provide a networking platform for potential employers and the aspiring future teachers and teacher-educators. Under the APSCHE umbrella, Osmania University and Andhra University have also started job fairs independently for teacher community of the state.

Another example of engaging private sector is the APSCHE – Intel Joint State level Contest on Technology Integration in Education for Colleges of Education, TEs and STs. This is conducted every year across the universities in the state, to encourage and felicitate TEs to integrate innovative teaching methods to promote 21st century skills among students.

Appendix 2 | Case study on Kadi Sarva Vishwavidyalaya

Achieving excellence through Project Based Learning[12]

Kadi Sarva Vishwavidyalaya, Gandhinagar, Gujarat is a new university established in 2007 with the objective to provide need based education, develop and offer course of contemporary relevance and promote excellence by providing opportunities for research based education. The University signed an MoU with a technology company to prepare future teachers equipped with use of technology in Education.

R.H. Patel English Medium B.Ed. College is one of the three constituent B.Ed. colleges under Kadi Sarva Vishwavidyalaya where the Intel Teach Program was introduced. Project Based Learning (PBL) was integrated in the B.Ed. curriculum. PBL was given 2 credits carrying 50 marks. Under the PBL component, all students of B.Ed. Program were mandated to chose a unit from a subject and prepare a project

The Project Based Learning provided the scope of developing various skills such as analytical, observation, decision making, interpreting, summarizing and skill of presentation through Power Point and Video clip Presentation.

The College implemented PBL at two stages- as a teaching methodology to be followed by the TEs to teach the student-teachers; and as a concept that the student-teachers would be required to learn as a teaching methodology. With this dual-level strategy, the student-teachers not only gained greater conceptual clarity of their subjects, but also developed better teaching skills. The student-teachers showed higher confidence during their practice-teaching sessions.

The graduates are likely to be better prepared with skills and knowledge to introduce similar teaching and learning methodologies, in their future role as a TEs/ teachers.

12 Source: Responses of semi-structured questionnaire designed for this research study and discussion with Dean of Faculty of Education, Kadi Sarva Vidyalaya

Appendix 3 | Case study on University of Pune

Developing an e-Culture in teaching and learning[13]

With the aim to enhance the teaching and learning skills of STs through experiential learning, in 2003, Pune University integrated innovative teaching and learning methodology and integrated technology in the teacher education curriculum. Capacity building of TEs was a very important aspect of this initiative. Select TEs were trained as Master trainers, who further cascaded the training to other TEs.

The university also took the initiative to develop an e-culture not only in the department of Education but also in all 114 colleges of education affiliated to the University across three districts of Maharashtra — Pune, Ahmednagar and Nashik. The University caters to approximately 750 TEs and 10,000 STs across these colleges.

In 2002, ICT was made a compulsory component in the B.Ed. curriculum. In 2005 and then in 2010, the University reviewed and revised the curriculum to include modules on Project Based Approach to make the course experiential for the student teacher. The TEs benefited in two ways. They were trained in use of computers. At the same time, they learnt to integrate ICTs in project based learning (PBL). Since then PBL has been extensively used as a teaching methodology by the teacher-educators, which has enabled the TEs to create a lively classroom and the STs to develop higher order thinking skills. STs develop projects on any currently relevant theme. They are trained in using office applications, internet search engines, photo editor programs for research, analysis and documentation. The initiative has significantly increased classroom interaction, and enhancement of teaching and learning.

University statistics shows STs who benefited from the program annually. 70% STs use Web technologies in projects, 80% as a productivity tool, 90% as a communication tool, 50% as a collaboration tool, 90% use to support overall administration, and 80% PG students use technology as a research tool. With continued use, 100% STs have experienced the benefits of e-learning in the learning process. The STs have used ICT for regular academic learning purposes, in project-work through PBL, and during practice-teaching. Further, as teacher educator and/or as teacher community, they have found themselves more capable and confident in transacting lessons with technology.

13 Source: Responses of semi-structured questionnaire designed for this research study Rusen, K (2011). Developing an E-culture: A journey with Intel Teach at University of Pune. September 12th, 2011 posted in http://www.indiacsr.in/en/?p=1956

Appendix 4 | Case study on Collaboration for Interdisciplinary Post-graduate Course Development[14]

The Collaborative Post Graduate Programme in Education (CPG) leading to MA Education (Elementary) is a major macro level intervention for the development of skilled professionals in elementary education. It was conceptualized, developed and implemented collaboratively by a group of institutions who have contributed significantly to elementary education research and innovative practice. The 6 collaborators are: Tata Institute of Social Science, Mumbai; National Institute for Advanced Studies, Bangalore; Homi Bhabha Centre for Science Education, Mumbai; Vidya Bhawan Society, Udaipur; Digantar, Jaipur; and Eklavya, Madhya Pradesh. The central objective of the CPG programme is to build professional preparation of teachers, TEs, curriculum and textbook developers, educational planners, administrators and researchers around integration of academic knowledge and field learning.

The CPG programme was launched at a time when the country had taken on the challenge of universalizing elementary education with a commitment to ensure quality education for all. Due to lack of appropriately trained personnel in elementary education 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. The problem is especially acute in the area of teacher training. There hardly exists any focused program for the training of trainers at the elementary level.

The programme gathered and systematized the thinking, reflection and experiences that have taken place both within and outside the country in the area of elementary education to evolve a coherent vocabulary, researched and documented knowledge base and informed perspectives. Hosted by Tata Institute of Social Science, Mumbai, the CPG program aimed at enhancing knowledge, capacities and orientations that are relevant to strengthening elementary education in the country. Students completing this programme developed a critical and reflective understanding of the core and foundational areas of education, including theory and research. The programme was designed to include thematic, issue-based courses that are of current significance in the Indian context. Students also developed special expertise in chosen areas of study relating more directly to professional needs: for example, curriculum, pedagogy, teacher development, material development, education of children with special needs, leadership and management issues, etc.

This programme has 3 distinctive features:

- It is conducted in dual mode which involves 3 weeks of contact classes and 15 weeks of distance learning per semester. The programme is spread over 4 semesters and is to be completed within 2 academic years. This model had been chosen as a way of facilitating participants to combine their work with study. The contact classes are held at the Mumbai campus of the TISS. Teaching' learning in the rest of the semester is carried out based on planned weekly/fortnightly reading, study and regular assignments to be shared with faculty and other peers, primarily through the Internet.

14 Source: Collaboration for Interdisciplinary Post-graduate Course Development in Education by C Sheshadri, in An Anthology of Best Practices in Teacher Education. Eds. Prof. T. K. S. Lakshmi, Dr. (Mrs.) K. Rama, Dr. Johan Hendrikz. NAAC 2007. Page 140-146

- The theoretical requirements of field attachment are drawn from one of the optional courses in Semester II of the programme. The aim is to enable the student to connect theory with experiences on the field, and learn to critically reflect on the same.
- Evaluation includes end-term examination in courses, assignments submitted during the course, term paper and field attachment with assigned weightage. All courses are creditized. Assignments are a part of the self-study pedagogy, structured and based on readings. Term paper is based on reading or conducting a small study followed by analysis of it or analyzing case studies provided.

It presented an excellent illustration of the rigorous process of curriculum planning incorporating experiences and perspectives from multiple disciplines, programme designing for reflective study, collaboration with multiple institutions, integration of contact and self-paced learning, self-study pedagogy through structured assignments and integration of field experiences (practice) with academic knowledge (theory).

Appendix 5 | Case study on Open University of Sri Lanka (OUSL)

Practitioner Oriented Post Graduate Program in Teacher Education[15]

Considering the need to enhance professional development of TEs, the Faculty of Education at the Open University of Sri Lanka (OUSL) introduced a unique, practitioner-oriented program, Master of Arts in Teacher Education-International (MATE-I) Program. Launched by the Faculty of Education at the OUSL in the year 2000, the Program was offered to practicing TEs in the field, entirely through distance mode. The goal of MATE-I Program was to develop among TEs, competencies and practices in the areas of teaching and learning, use of educational technologies, design, development, and evaluation of curricula, management and leadership, research and evaluation and teaching as a profession. It aimed at enhancing quality in teacher education, through the making of a reflective practitioner.

MATE-I program consists of six compulsory courses and a learning portfolio project. The courses focus on the various roles of TEs rather than specific subject matter content. The most significant feature of MATE-I program is its pedagogical design - Scenario-Based Learning (SBL) . In this approach, authentic learning scenarios are used to situate the learners, and these situations orchestrate the learning and assessment activities in each course as challenging tasks to be performed by them.

The learning environment for the program consists of offline as well as online resources. The major forms of learner support comprise print materials and multimedia resources including a Study Guide and a Resource Pack. In developing these materials, a course team approach was adopted which involved sharing of expertise of academics from different institutions, with continuous facilitation by international experts.

A limited number of interactive face-to-face contact sessions are organized with the local tutors. In addition, local study center support with library, computer and internet facilities; on-line provision for tutor support and assignment submission; and provision for an online discussion forum via a learning management system (LMS) to facilitate student interactions are also provided. Continuous assessment (CA) leads to the final assessment in a course. In each course there are a number of compulsory assignments, which are continuously evaluated by two examiners, and these CA marks contribute to the final evaluation of a student.

15 Source: Practitioner Oriented Post Graduate Programme in Teacher Education by Shironica Karunanayaka, in An Anthology of Best Practices in Teacher Education. Eds. Prof. T. K. S. Lakshmi, Dr. (Mrs.) K. Rama, Dr. Johan Hendrikz. NAAC 2007. Page 14-18

Two factors significantly contributed to the programme effectiveness. One, the collaboration and networking among institutions and individuals in all aspects of the programme; and two, the course team approach which pooled efforts of professional experts, local as well as international, for evolving effective and innovative courses of study. Further use of SBL enabled learners to increasingly engage in collaborative, reflective and self-regulated learning. As the delivery of the program takes place in the form of multi-mode interactions/discussions rather than one-way communication, the experiences they gain lead not only to mastering the concept of SBL, but also to learning as a group. Innovative approaches such as collaborative, reflective practices and use of ODL and ICTs are essential in developing quality professional development programs for educators.

Appendix 6 | Case Study on Teaching Quality Improvement in Bangladesh[16]

PINZ was part of an international partnership contracted by the Asian Development Bank to implement the Teaching Quality Improvement in Secondary Education Project (TQI). The project was initiated by the Government of Bangladesh at the end of 2005, to develop the country's human capital and open up a brighter economic future. Since 2006, around 400,000 teachers have come through the training system organized under this project. The role of TEs in the implementation of the program has been immense.

Core goal of the project was to introduce the teaching community to newer pedagogical frameworks, such as greater participatory teaching-learning environment, technology integration and experiential learning that made use of international best practices in pedagogy. This case study shows how various strategies were employed for the preparation of TEs to make them ready to train the teachers to achieve the goal of overall improvement of secondary education in the country. The following steps were initiated:

- Teacher training institute were equipped with Computer labs and basic computing including internet usage was made a required subject on the pre-service Bachelor of Education (B.Ed.).
- Technology equipment including multimedia projectors, overhead projectors and screens were made available at teacher training institutions.
- A three-phase continuous professional development at in-service level was introduced for TEs.
- Content development was identified as a priority to accelerate the program. Seven teams of lecturers (TEs) from teacher training colleges worked with teachers to localize the digital content.
- All teacher-training colleges and many schools were provided with laptops and multimedia equipments.
- A study tour to Sri Lanka was organised to understand the modernisation of its primary and secondary school systems with ICTs.
- TEs were trained on the B.Ed. course orientation which was outcome oriented and focused on building teacher competency.

It was observed that introducing TEs to new pedagogical methods was not the only requirement in the uptake of these new methods. Some of the strategies used to improve uptake of new methods have been:

- Creating TEs' buy-in on new pedagogies via provision of mentoring and monitoring by the principals and peer group discussions.

16 Source: Teaching Quality Improvement in Secondary Education. Project undertaken by PINZ, New Zealand under sponsorship from Asian Development Bank and Bangladesh Ministry of Education (http://www.pinz.co.nz/projectdetail.aspx?pid=71)

- Engaging college principal in particular in motivating TEs to put into practice the skills and knowledge acquired through professional development training was found to be critical. Therefore prioritising professional development of head teachers has been an important factor.
- Organising short courses at overseas institutions helped TEs and principals to see the value in pedagogical changes and resulted in greater transmission of these skills in the classroom.
- Regular support for TEs in implementing new pedagogical approaches has been seen to be fundamental to its success.

Success of the intervention proved that introduction of new pedagogy such as experiential learning and participatory methods at the teacher training institutes required a consistent approach, appropriate support and mentoring of TEs and teachers alongside system wide implementation.

ANNEXURE

ANNEXURE

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ANNEXURE 1|RESEARCH METHODOLOGY

This section presents the sampling plan, respondent categories, description of tools, method of data collection and method of analysis.

Sampling

Stratified random sampling was adopted to select

a. the respondents from institutes imparting Bachelor of Education (B.Ed.) and Master of Education (M.Ed.) courses and

b. concerned policy and curriculum bodies. The study aimed at understanding the needs across diverse teacher education institutions. Hence, central universities, state universities SCERTs, DIETs were identified across various states.

The nine states selected for this study weree Delhi, Gujarat, Andhra Pradesh, Maharashtra, Madhya Pradesh, Uttar Pradesh, Haryana, Karnataka and Rajasthan. The universities, institutions and concerned bodies selected in different states were:

- Delhi –Jamia Milia Islamia (IASE); GGSIP; Lady Irwin College, Delhi University; 2 DIETs
- Andhra Pradesh – Osmania University (M.Ed. Faculty and IASE); 1 DIET
- Gujarat – Kadi Sarva Vishwavidyalaya (B.Ed. and M.Ed. Faculty); 2 DIETs
- Uttar Pradesh- Mangalmay Institute of Management and Technology, Chaudhary Charan Singh University
- Haryana- Sohan Lal DAV College (IASE)
- Maharashtra – Pune University (M.Ed. Faculty)
- Rajasthan– Rajasthan Mahila Teachers' Training College, Jodhpur University, Udaipur; Vidya Bhawan G.S.Teachers College (IASE), Mohanlal Sukhadiya University, Udaipur
- Madhya Pradesh – RIE Bhopal
- Karnataka- RIE Mysore

Study Respondents:

- Officials and Educationists from Government and Apex institutions, SCERT, NUEPA, UGC, Deans (Education) from Universities
- Heads of College of Education, RIE and Universities and IASE
- Teacher educators
- M. Ed. students
- M.Ed. qualified TEs working at the elementary teacher education stage at DIETs

To maintain objectivity, TEs were selected from a mixed group, age-wise and experience-wise, making the selection of the respondents unbiased. The respondents selected taught different methodologies/ foundation papers. A balance in gender representation was maintained. The stratification of the respondents is as follows:

Table 3 | Stratification of Respondents

Nature of the Institute	No. of respondents
TEs-Colleges of Education	23
TEs-RIE	9
TEs-IASE	14
TEs-DIETs	23
TEs-University Faculty of Education	15
M.Ed. students	13
Officials-SCERT	3
Officials-NUEPA	4
Officials-UGC	1
Total	**105**

The tools developed for the study were pre-tested with 15% of the total sample for validation. The feedback from the pilot test was incorporated to further strengthen and finalise the tools.

Data Collection Methods

- **Field Visits-** The researchers visited the teacher education institutions for data collection.
- **Interviews, Discussions-** Interviews and discussions were held with TEs and student teachers (STs) from identified teacher education institutions. TEs were oriented about the purpose of the study and the questionnaire in small groups. Researchers supported the respondents to address any queries related to the questionnaire.
- **Documentary Evidence-** Secondary documents were studied to understand the history and the implementation details of the professional development of TEs, such as NCF 2005, NCF TE 2009. A variety of curricular documents were collected from the teacher training institutes, including syllabi and lesson plans.
- **Discussions:** Educationists and members of the apex education bodies- SCERT, UGC, NUEPA, competent representatives from teacher education policy formulation and curriculum development bodies were consulted. Their input and suggestions were taken into account while organizing recommendations for the new competency framework for teacher training.

Data Analysis

Data was analysed under key areas listed below:

- Personal and professional profile of the TEs – to understand what exists versus what is expected;
- Skills and competencies of the TEs – as envisaged by the TEs and M.Ed. students and gaps thereof;
- Various elements of the curriculum and the teaching practices:
  - The depth of the cognitive elements in the professional subjects such as Philosophy, Psychology, Sociology and History of Education;
  - The content and transaction of methodology papers; integration of theory with practical experience and other field activities;
  - Acquisition of , professional and social skills and competencies required of a teacher educator; transversal or horizontal skills, such as 'learning to learn', 'learning to do', learning to unlearn and learning to relearn?
  - Modes of assessment.

Responses were carefully examined and main themes and trends were identified based on the frequently occurring responses. These were set as indicators in each of the key areas of analysis. For each response, content analysis was done to understand the context, matter, extent and effect of the responses[18]. The study largely followed the content analysis model defined by Ole Rudolf Holsti, "… technique for making inferences by systematically identifying specified characteristics of messages[19].

18 Krippendorff , Klaus (2012). Content Analysis; An Introduction to its Methodology, 3rd Edition, Thousand Oaks, CA: Sage, 441 pp
19 Holsti , Ole R. Content Analysis for the Social Sciences and Humanities. Reading, MA: Addison-Wesley. 1969

ANNEXURE 2| QUESTIONNAIRE FOR TEACHER EDUCATORS/DEAN/ PRINCIPALS

Section A: Personal Information

Name: _____

College: _____

City/District/State: _____

Contact email/mobile: _____

Age 30-40 ☐ 40-50 ☐ above 50 ☐

Gender Male ☐ Female ☐

Educational qualification:

Qualification	Tick	Subject of specialization
Graduation		
Post Graduation		
Doctoral		
Professional		
Technical		
Any other		

Do you refer to any journals and websites in College library? _____

Who decides which journal is to be subscribed for the library? _____

Section C: Work Profile

Why did you decide to become a Teacher Educator?

Years of teaching experience:

As teacher ☐ As teacher educator ☐

Grades taught:

Primary ☐ Secondary ☐ Higher Secondary ☐ College ☐

B.Ed. ☐ M.Ed. ☐ Any other, please specify _____

- What are the subjects/ courses you are trained in? (Methodology paper and optional specializations)

  _____

- What are the subjects/ courses do you teach? (this session, previous session)

  _____

- How are you allocated subjects, courses? What is the basis of this allocation?

  _____

- Have you always been teaching these subjects and courses? Does work allocation change over time? Why?

  _____

- Do you feel equipped to do the work assigned to you? Do you face any challenge? (only for TEs)

  _____

  Does work allocation for the teacher educators change over time? Why? (only for Deans/ Principals)

  Do you teach any course now? (only for Deans/Principals)

  Have you been given any training as an administrator? Do you face any challenge? (only for Deans/Principals)

  _____

Section D: Curriculum and course content

- How does the curriculum integrate various components of pedagogy?

  _____

- How does the curriculum equip the teachers with various skills essential for teacher-educators?

  _____

- Is the current M.Ed. course a logical and progressive extension of the B.Ed. course? What according to you should be essential components of M. Ed. Course curriculum that enables teacher educators to play their role effectively?

  _____

Section E: Professional Preparation | Skills & Competencies

- What are the core skills and competencies the teacher educators should have to transact the curriculum effectively?

_____

- Do you feel well equipped to handle changes in the school education or University Teacher training curriculum? How much of your learning is directly applicable to what you teach or would teach?

_____

- How much specialized training is desirable in terms of courses, subjects? Who do you think should organize this?

_____

- Should dissertation/ research be an integral part of the teacher-educator preparation and subject to assessment?

_____

What are your views on including School Experience/ Internship in a B.Ed. College as a part of M.Ed. program?

How relevant are the foundation courses? What are your suggestions?

Are you aware of the global trends in teacher educator professional preparation? Is your University's B.Ed./ M.Ed. curriculum responsive to that?

_____

Section F: Curriculum Upgradation and Continual Change

1. How frequently is the teacher educator curriculum modified in your institute? On what basis curriculum modification happens?

_____

Section G: Challenges and Suggestions

1. What are the areas of concern in the current TE curriculum and practices?

_____

As a practicing teacher educator, what are your suggestions regarding

- Theoretical aspects of the curriculum?
- Teaching practice?
- The assessment techniques?
- Pedagogical strategies?

_____

2. Would you like to recommend some teacher preparation strategies that are likely to increase the professional efficiency of teacher educators?

_____

3. Keeping in view the current content, teaching techniques and assessment modes of the course for Teacher Educators, what strengths did you gain and what still remains your limitations?

_____

4. As an administrator, how do you think the teacher educator colleges play a bigger role in preparing the teachers for various professional challenges? How would you like to implement those? What are the likely issues you perceive in this?

_____

Annexure | Enabling clues to respond to the questionnaire

Section D: Curriculum and course content

How does the curriculum integrate various components of pedagogy?

- **a.** How does the curriculum define learning goals?
- **b.** Is teaching-learning process theoretical or is it taught practically?
- **c.** How does the integration of theory and practice
- **d.** Is classroom management taught through practice teaching?
- **e.** Does the curriculum include teaching through technology?
- **f.** Does the curriculum promote practice of research?

How does the curriculum equip the teachers with various skills essential for teacher-educators?

- **a.** To understand and handle issues of student diversity
- **b.** In curriculum design and upgradation
- **c.** In Guidance and Counseling (educational, vocational, personal, etc)
- **d.** In assessment techniques (innovative processes, procedures and criteria)
- **e.** In life skills learning

In your opinion, is the current M.Ed. course a logical and progressive extension of the B.Ed. course? Elaborate your views.

- **a.** What areas are covered?
- **b.** Is there any repetition?
- **c.** What are the gaps?
- **d.** What are your suggestions?

Section E: Professional Preparation | Skills & Competencies

What are the core skills and competencies the teacher educators should have to transact the curriculum effectively?

- **a.** Delivery of curriculum
- **b.** Training skills
- **c.** Integration of new ideas
- **d.** Guidance and counseling
- **e.** Assessment
- **f.** Understanding of student needs
- **g.** Ability to handle student diversity

Do you feel well equipped to handle changes in the school education or University Teacher training curriculum? How much of your learning is directly applicable to what you teach or would teach?

- **a.** Do you feel prepared and equipped to understand and handle the learners' needs? If not, cite reason
- **b.** The face of Indian education is changing frequently. These changes are also apparent in the needs and demands of the teacher-learners. How are you trained to cope with these ever- ensuing changes?
- **c.** How do the teacher-education preparation practices cater to student diversity?

How much specialized training is desirable in terms of courses, subjects? Who do you think should organize this?

- **a.** Should there be specialized teacher educator's programmes for Science Education, Language Education, Social Sciences Education, Maths Education? Elaborate your views.
- **b.** Should there be state specific programmes for teacher educators for ECCE, Elementary, and Secondary stages? Elaborate your views.

Should dissertation/ research be an integral part of the teacher-educator preparation and subject to assessment?

- **a.** Are you part of any research project or publication recently?
- **b.** How frequently do you take part in intra-college and inter-college research projects?
- **c.** How frequently do you go for refresher courses, seminars, conferences etc? How do you implement the learning from these forums?

ANNEXURE 3 | QUESTIONNAIRE FOR STUDENT-TEACHERS

Section A: Personal Information

Name: _____

College: _____

City/District/State: _____

Contact email/mobile: _____

Age 20-30 ☐ 30-40 ☐ above 40 ☐

Gender Male ☐ Female ☐

Educational qualification

Qualification	Tick	Subject of specialization
Graduation		
Post Graduation		
Doctoral		
Professional		
Technical		
Any other		

Do you refer to any journals and websites in College library? _____

Who decides which journal is to be subscribed for the library? _____

Section C: Work Profile

- Why did you decide to pursue M.Ed.? Do you wish to become a Teacher Educator?

  _____

- Years of teaching experience:

  _____

Grades taught:

Primary ☐ Secondary ☐ Higher Secondary ☐ College ☐

Any other, please specify _____

- What are the subjects/ courses you are trained in B.Ed.? (Methodology paper and optional specializations)

_____

- What are the subjects do you teach or have taught? (this session, previous session)

_____

- What are the subjects you have taken up in the course? What do you expect to learn in these? How will it help you?

_____

Section D: Curriculum and course content

- How does the curriculum integrate various components of pedagogy?

_____

- How does the curriculum equip the student teachers with various skills essential for teacher-educators?

_____

- Is the current M.Ed. course a logical and progressive extension of the B.Ed. course? What according to you should be essential components of M. Ed. Course curriculum that enables teacher educators to play their role effectively?

_____

Section E: Professional Preparation | Skills & Competencies

- What are the core skills and competencies the teacher educators should have to transact the curriculum effectively?

_____

- Do you feel that the course will well equip you to handle changes in the school education or University Teacher training curriculum? How much of your learning is directly applicable to what you would teach?

_____

- How much specialized training is desirable in terms of courses, subjects? Who do you think should organize this?

_____

- Should dissertation/ research be an integral part of the teacher-educator preparation and subject to assessment?

_____

- What are your views on including School Experience/ Internship in a B.Ed. College as a part of M.Ed. program?

_____

- Are you aware of the global trends in teacher educator professional preparation? Is your University's B.Ed./ M.Ed. curriculum responsive to that?

_____

Section F: Curriculum Upgradation and Continual Change

1. Do you know how frequently is the teacher educator curriculum modified in your institute?

_____

Section G: Challenges and Suggestions

1. What are the areas of concern in the current TE curriculum and practices?

_____

What are your suggestions regarding

a. Theoretical aspects of the curriculum?

b. Teaching practice?

c. The assessment techniques?

d. Pedagogical strategies?

_____

Would you like to recommend some teacher preparation strategies that are likely to increase the professional efficiency of teacher educators?

1. Keeping in view the current content, teaching techniques and assessment modes of the M.Ed. course, what strengths do you envision to gain and what still remains your limitations?

_____

Annexure | Enabling clues to respond to the questionnaire

Section D: Curriculum and course content

How does the curriculum integrate various components of pedagogy?

a. How does the curriculum define learning goals?

b. Is teaching-learning process theoretical or is it taught practically?

c. How does the integration of theory and practice

d. Is classroom management taught through practice teaching?

e. Does the curriculum include teaching through technology?

f. Does the curriculum promote practice of research?

How does the curriculum equip the teachers with various skills essential for teacher-educators?

- **a.** To understand and handle issues of student diversity
- **b.** In curriculum design and upgradation
- **c.** In Guidance and Counseling (educational, vocational, personal, etc)
- **d.** In assessment techniques (innovative processes, procedures and criteria)
- **e.** In life skills learning

In your opinion, is the current M.Ed. course a logical and progressive extension of the B.Ed. course? Elaborate your views.

- **a.** What areas are covered?
- **b.** Is there any repetition?
- **c.** What are the gaps?
- **d.** What are your suggestions?

Section E: Professional Preparation | Skills & Competencies

What are the core skills and competencies the teacher educators should have to transact the curriculum effectively?

- **a.** Delivery of curriculum
- **b.** Training skills
- **c.** Integration of new ideas
- **d.** Guidance and counseling
- **e.** Assessment
- **f.** Understanding of student needs
- **g.** Ability to handle student diversity

Do you feel well equipped to handle changes in the school education or University Teacher training curriculum? How much of your learning is directly applicable to what you teach or would teach?

- **a.** Do you feel prepared and equipped to understand and handle the learners' needs? If not, cite reason
- **b.** The face of Indian education is changing frequently. These changes are also apparent in the needs and demands of the teacher-learners. How are you trained to cope with these ever- ensuing changes?
- **c.** How do the teacher-education preparation practices cater to student diversity?

How much specialized training is desirable in terms of courses, subjects? Who do you think should organize this?

a. Should there be specialized teacher educator's programmes for Science Education, Language Education, Social Sciences Education, Maths Education? Elaborate your views.

b. Should there be state specific programmes for teacher educators for ECCE, Elementary, and Secondary stages? Elaborate your views.

Should dissertation/ research be an integral part of the teacher-educator preparation and subject to assessment?

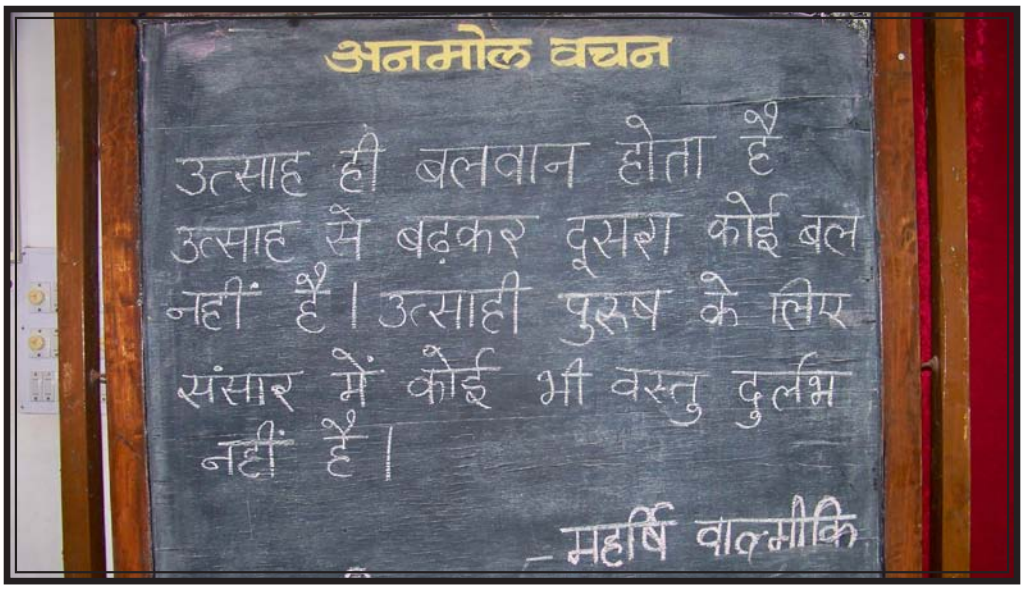
a. Are you part of any research project or publication recently?

b. How frequently do you take part in intra-college and inter-college research projects?

c. How frequently do you go for refresher courses, seminars, conferences etc? How do you implement the learning from these forums?

GLOSSARY

GLOSSARY



GLOSSARY

A/V	Audio visual
B.Ed.	Bachelor of Education
B.El.Ed	Bachelor in Elementary Education
CBSE	Central Board of Secondary Education
D.Ed	Diploma in Education
DIET	DIET
GGSIP	Guru Govind Singh Indraprastha University
IASE	Institute of Advanced Studies in Education
ICT	Information and Communication Technologies
M.Ed.	Master of Education
MHRD	Ministry of Human Resource Development, Government of India
MT	Master Trainers
NAAC	National Assessment and Accreditation Council
NCERT	National Council of Educational Research and Training
NCF	National Curriculum Framework
NCF TE	National Curriculum Framework for Teacher Education
NCTE	National Council for Teacher Education
NGO	Non-Government Organizations
NUEPA	National University of Educational Planning and Administration
PBL	Project Based Learning
PTC	Primary Teacher Training Certificate Course
RIE	Regional Institute of Education
RMSA	Rashtriya Madhyamik Sikhsa Abhiyaan
RTE	Right to Education Act
SCERT	State Council of Educational Research and Training
SSA	Sarva Siksha Abhiyaan
ST	Student Teachers
TE	Teacher Educators
ToT	Training of Trainers
UGC	University Grants Commission

Confederation of Indian Industry

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the growth of industry in India, partnering industry and government alike through advisory and consultative processes.

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