

Voices of Teachers and Teacher Educators

Volume I Issue 1 January 2012



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About the publication

The launch of the journal 'Voices of Teachers and Teacher Educators' is an initiative of the Ministry of Human Resource Development (MHRD) to highlight the vital role of teacher education in India, as the country is poised to provide quality education to all its children, irrespective of gender, caste, creed, religion and geographies under the Right of Children to Free and Compulsory Education Act (RtE), 2009. The large influx of teachers necessitated under RtE represents the biggest opportunity to bring fresh life into schools for decades to come. The challenge is to enhance the role of teachers in shaping the social transformation India is witnessing, as well as have a long lasting impact on the quality of education, also making it significantly more equitable. Teachers and all those in the system need to recognize that their ownership and voices are important and that they can and do learn not only from their own experiences but also from each other through collective reflection and analysis. The publication attempts to lend voice to teachers, their educators, researchers, administrators and policy makers in the varied institutions: Schools, CRCs, BRCs, DIETs, IASEs, CTEs, SCERTs etc., and make visible their engagement in accomplishing extraordinarily complex and diverse tasks that they are expected to perform. Contributions are welcome both in English and Hindi and there are plans to produce the journal in a multilingual format in the near future.

Call for contributions

This publication is for all of us: teachers, teacher educators, administrators, researchers and policy makers. It is to provide a platform and also to build a network for our voices, ideas and reflections. Since the idea is to make this journal reflect all our voices it would only fulfill its purpose, if we contribute to it in as many ways as we can. We look forward to all of you contributing with your experiences, questions, suggestions, perspectives as well as critical comments on different aspects of teacher education and schooling. This could also be through comments and reflections on the current issue. Your contribution could be in the form of articles, reports documents, pictures, cartoons or any other forms of presentation that can be printed. We look forward to your inputs to make this journal truly reflective of our voices. It is proposed that this be a quarterly publication. We would like to receive contributions for the next issue by 15th April, 2012. We also look forward to comments and suggestions for improvements of the publication to make this a participative endeavor and improve its quality.

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Editorial

There have been some remarkable developments in education in India in the millennium's first decade. The 86th Constitutional Amendment in 2002, the National Curriculum Framework (NCF) in 2005 followed by the subsequent passing of the Right of Children to Free and Compulsory Education Act (RtE) in 2009; the launch of the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) for universalizing secondary education; the commitment to vocational education and the Knowledge Commission Report are heartening developments for educating India's young.

The story of teacher education in the last decade, however, has not been quite the same. Amid widespread perception that teacher education institutions especially Institutes of Advanced Studies in Education (IASEs), Colleges of Teacher Education (CTEs), State Councils of Educational Research and Training (SCERTs) and District Institute of Educational Training (DIETs) are not functioning as envisaged, review committees were set up to examine the situation. It was not until 2010, that teacher education became a central issue in serving the needs of children as they would ultimately be the recipients of the reform efforts. It is heartening that Ministry of Human Resource Development (MHRD) has highlighted teacher education as the crux of its education planning, with clear policies, plans and allocations for the immediate future in the 12th Five-Year Plan.

Two consultative conferences with state education administrators on teacher education, organized by MHRD in 2011 at Kolkata and Delhi, have led to several plans for revitalizing Teacher Education. This first issue of a publication for teachers and teacher educators, is one such initiative that emerged from the deliberations at the conferences.

As we reflect on teacher education in India, some aspects come to the forefront.

Foremost among these is the hierarchy of hegemonies in the multiple layers of the teacher education system in India. Certain university departments of education over others, IASEs over SCERTs, SCERTs over DIETs, DIETs over BRCs, CRCs over schools, schools over children and communities. In the years to come, the vibrancy of teacher education will depend upon how collaborative relationships based on mutual respect and acknowledgement of contributions can be built among all these institutions.

Another concern is the very large, diverse and indeed incredible set of expectations from SCERTs and DIETs, from both the central and state governments without commensurate resource support and status that can enable and ensure effectiveness with quality and equity.

The task of teacher preparation is also multi-dimensional. Formal knowledge of theories is essential; equally if not more, are actual experiences with schools, children, classrooms, teaching-learning materials and community interactions followed by reflections on these experiences. The 'soft' skills of communication and adult-child interactions, must come with sensitivity to issues of equity and inclusion, and this often requires intense personal engagement with unlearning and relearning. Importantly, all this has to be planned with deliberate speed.

Finally, there is the teacher educator, about whom we have a vague, if not diffused picture. What does an effective teacher educator look like, think like? Is she/he a subject expert? A generic pedagogue? An academician? An experienced and effective teacher? A public speaker? A widely published researcher? None, or all of the above? The profile of a teacher educator goes beyond formal qualifications.

'Voices of Teachers and Teacher Educators' is a tentative new beginning that can help us to make visible teacher education in all its complexities, a forum to share stories and experiences, to celebrate successes, commiserate and learn from setbacks, and above all, collectively make teachers and teacher educators heard and serve the interests of children best.

कक्षा और शिक्षक

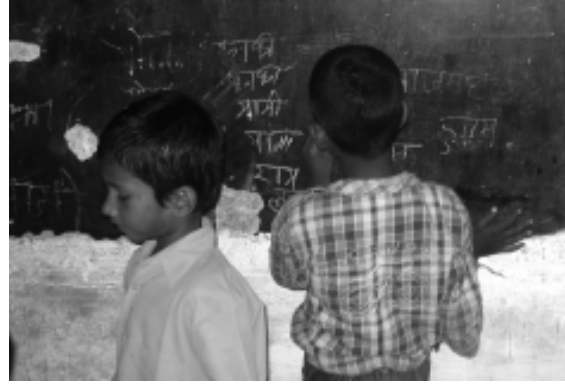
पिछले कुछ वर्षों से मैं शिक्षा के क्षेत्र में कार्य कर रही हूँ। इन वर्षों के दौरान मुझे विभिन्न तरह के कार्यों को करने का अवसर मिला है। पाठ्यपुस्तक लेखन, सेवारत व सेवापूर्व प्रशिक्षण, माड्यूल निर्माण, शोध इत्यादि। इन कार्यों को करते हुए मेरा कभी-कभार, कुछ समय के लिए विद्यालयों में भी जाना हुआ। जैसे पाठ्यपुस्तकों के अध्यायों पर फीडबैक लेने हेतु, शोध के उद्देश्य से कक्षा-कक्ष व विद्यालय अवलोकन हेतु। इन कार्यों को करने के दौरान यह खयाल भी मन में आता कि चाहे कितनी अच्छी पाठ्यपुस्तक क्यों न बना लें, या चाहे कितना अच्छा प्रशिक्षण क्यों कर लें, विद्यालयों की स्थिति सुधरती ही नहीं। लेखन समूह के व्यक्तियों व संदर्भ व्यक्तियों से भी बात होती तो अधिकांश का यही मानना था कि हम तो हमारा काम अच्छे से कर सकते हैं और करते भी हैं पर शिक्षक पढ़ाना ही नहीं चाहते तो क्या करें?

मैं अक्सर यह सोचती कि क्या वास्तव में शिक्षक पढ़ाना नहीं चाहते? क्यों नहीं पढ़ाना चाहते? क्या कारण हो सकते हैं? या फिर इसी को सच मान लें कि वे नहीं पढ़ाना चाहते?

हाल ही में मुझे एक ग्रामीण सरकारी विद्यालय में लम्बे समय तक नियमित रूप से पढ़ाने का अवसर मिला। इस अवसर ने मुझे शिक्षक की भूमिका को समझने में मदद की और साथ ही इस संदर्भ/विचार 'शिक्षक पढ़ाना ही नहीं चाहते' के बारे में भी सवाल खड़े किये व सोचने पर मजबूर किया।

मुझे महसूस हुआ कि मेरी विभिन्न भूमिकाओं को अदा करते हुए चाहे वह संदर्भ व्यक्ति की हो अथवा शोधार्थी की अथवा पाठ्यपुस्तक लेखक की, मैं कई तथ्य सहजता से कह देती थी। कक्षा में व स्कूल में कार्य करते हुए मुझे यह लगा कि इन बातों/तथ्यों के क्रियान्वयन के लिए वास्तव में कितनी ऊर्जा, धैर्य व समझ की आवश्यकता है।

मैं वह सब क्यों कह रही हूँ। इसका उत्तर आपको आगे लेख में मिलेगा। जिसमें मैंने अपने कुछ अनुभवों को बाँटने का प्रयास किया है एक शिक्षक की नज़र से।



कक्षा का वातावरण व व्यवस्था

मुझे कक्षा 3 'अ' को पढ़ाने की ज़िम्मेदारी मिली। कक्षा में जाते ही अध्यापक ने सूचित किया कि वर्ग 'अ' व 'ब' साथ में बैठते हैं क्योंकि स्कूल में शिक्षकों की संख्या कम है। दोनों कक्षाओं में कुल मिलाकर 104 बच्चे थे व औसत उपस्थिति 60 से 70 के बीच थी। यूँ तो कक्षा-कक्ष पर्याप्त बड़ा था लेकिन चूँकि बच्चे ज़्यादा थे तो कमरे को छोटा होना ही था। बच्चों को एक-दूसरे से सटकर बैठना पड़ता था और इससे बातचीत व एक-दूसरे को परेशान करने जैसी शरारतें चलती रहती थीं—मैडम इसने मेरी पेंसिल ले ली, मैडम इसने मेरा रबर छुपा दिया, मैडम मेरे हाथ पर पेन चला दिया और पता नहीं क्या-क्या इतनी आवाज़ें एक साथ मुझे कई बार समझ ही नहीं आता कि किसको पहले जवाब दूँ या पहले समझाऊँ।

दूसरा यदि कभी मुझे लगे कि मुझे अन्त में कोने में बैठे हुए बच्चा क्या काम कर रहा है यह देखना है या बच्चे को मेरे पास आना है तो आने-जाने में ही हमें 2-3 मिनट लग पाते और फिर यह कि ओह इसने मेरे हाथ पर पैर रख दिया। यही काफ़ी नहीं जैसे ही पैर रखा वैसे ही दूसरे बच्चे ने जवाब भी दे दिया। या तो मारकर या शर्ट खींचकर और इस परिस्थिति में मुझे स्वयं को इतना गुस्सा आ जाता कि लगता कि कभी डंडा उठाऊँ व सबको चुप करवा दूँ पर कहना बड़ा आसान है कि बच्चों को न मारा जाय, न उन पर गुस्सा किया जाय। लेकिन जिस तरह कि परिस्थितियाँ निर्मित होती हैं उसमें धैर्य रखना बहुत ही मुश्किल कार्य है।

Voices of Teachers and Teacher Educators

मैं यहाँ यह कतई नहीं कह रही कि इसलिए बच्चों को मारना चाहिए बल्कि यह कह रही हूँ कि हमें यह ज़रूर सोचना चाहिये कि हम किस तरह ऐसी परिस्थितियाँ निर्मित करने में शिक्षक की मदद करें कि उसे बच्चों के साथ काम करने में मदद मिले।

एक और समस्या भी थी हमारी कक्षा में। कक्षा बड़ी थी लेकिन पंखा केवल एक था वह भी आगे की तरफ हर एक बच्चे का यह प्रयास रहता था कि उसको पंखे के नीचे जगह मिल जाए। शुरुआत में मुझे समझ ही नहीं आया कि क्यों अधिकांश बच्चे एक ही जगह पर बैठने के लिए लड़ते रहते हैं और मैं हर दिन उन्हें समझाने का प्रयास करती। सारे आगे नहीं बैठ सकते हैं कुछ को पीछे बैठना ही पड़ेगा वगैरह-वगैरह लेकिन दो-तीन दिन बाद जब मुझे समझ आया कि गर्मी में पीछे बैठना कितना मुश्किल है मुझे लगा कि बच्चों को क्या समझाऊँ यह कि तुम्हें पीछे बैठना चाहिये या तुम्हें गर्मी क्यों लगती है? चुपचाप बैठो कोई गर्मी-वर्मी नहीं है यहाँ। यह भी सवाल मन में आया कि इस कक्षा में दो पंखे लगवाना क्या इतना मुश्किल है।

सीखने-सिखाने की प्रक्रिया

इसी तरह यह कहना कि हर बच्चा अपने तरीके से सीखता है। बिल्कुल सही है लेकिन फिर भी अध्यापक की ज़रूरत तो है। यह भी ज़रूरी है कि अध्यापक उस बच्चे के साथ बात करे ताकि उसे आगे बढ़ने में मदद मिले लेकिन पूरे दिन में कितना समय एक अध्यापक बच्चे के साथ गुजारे? 10 मिनट.... 15 मिनट या ज़्यादा? यदि एक अध्यापक पूरे दिन में 10 मिनट एक बच्चे के साथ व्यक्तिगत तौर पर काम करे तो 40 बच्चों के साथ काम करने को उसे 400 मिनट यानी लगभग 7 घंटे चाहिये। लेकिन कक्षाएँ तो सिर्फ 6 घंटे चलती हैं फिर उसे न केवल अवधारणाएँ सिखानी हैं उसे हाजिरी भी लेनी है, उसे बच्चों के माता-पिता से बात भी करनी है, उसे प्रशिक्षणों में भी जाना है, व पाठ्यक्रम भी खत्म करना है। मुझे कोई भी एक विषय-वस्तु पर ठीक से काम करने के लिए कम-से-कम

दो दिन की ज़रूरत लगी और वो भी तब जब मैं लगातार 2 घंटे कक्षा लेती व लंच के समय कॉपी जाँचने व गृहकार्य देने का काम करती।



लगभग तीन महीने के समय के दौरान ऐसे कई अनुभव मुझे हुए जिसने शिक्षकों, उनकी कार्यशैली, स्कूल की व्यवस्थाओं, सीखने-सिखाने की प्रक्रियाओं आदि कई मुद्दों पर बनी मेरी पूर्व समझ के बारे में सोचने पर बाध्य किया। यह सोचने पर बाध्य किया कि हम जो अपेक्षाएँ/आशाएँ एक शिक्षक से रखते हैं उसको पूरा करने के लिए उसको कितनी मदद हम वास्तव में करते हैं? और मदद की बात तो दूर क्या हम पर्याप्त समय देकर उनकी बातों को सुनते भी हैं? यह समझने का ईमानदार प्रयास करते हैं कि वास्तव में भी उसकी क्या परेशानियाँ हैं? चाहे वह कक्षा में अधिक बच्चों की हो, अथवा विषय पढ़ाने के तरीकों को लेकर, अथवा समुदाय से संबंध स्थापित करने की। मुझे लगा कि सिर्फ उसको ज़िम्मेदारियाँ देना व उससे ज़िम्मेदारियों के पूर्ण करने की अपेक्षा करना यह तो बिल्कुल अपर्याप्त है। ज़रूरत है उनको सुनने की, समझने की ताकि हम उनको उनके साथ काम करने का विश्वास दे पाएँ यह विश्वास दे पाएँ कि अगर आप कार्य में सफल नहीं हो पा रहे हैं तो कोई बात नहीं हम आपके साथ हैं और हम साथ मिलकर इस कार्य को पूरा करेंगे।

Initiating dialogue

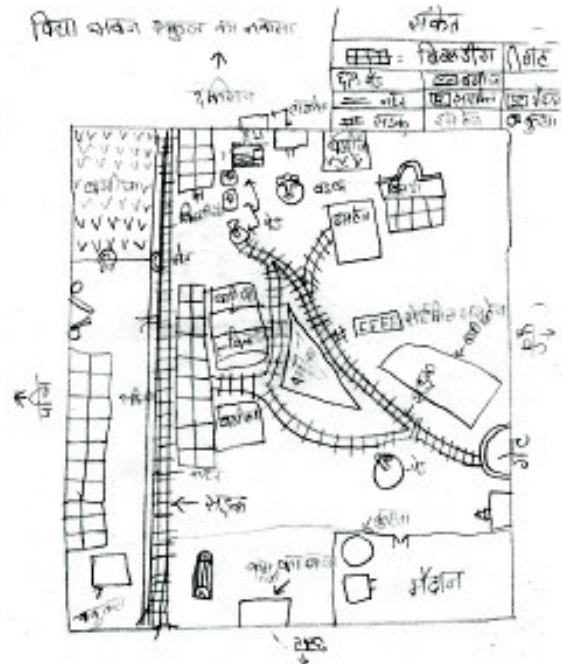
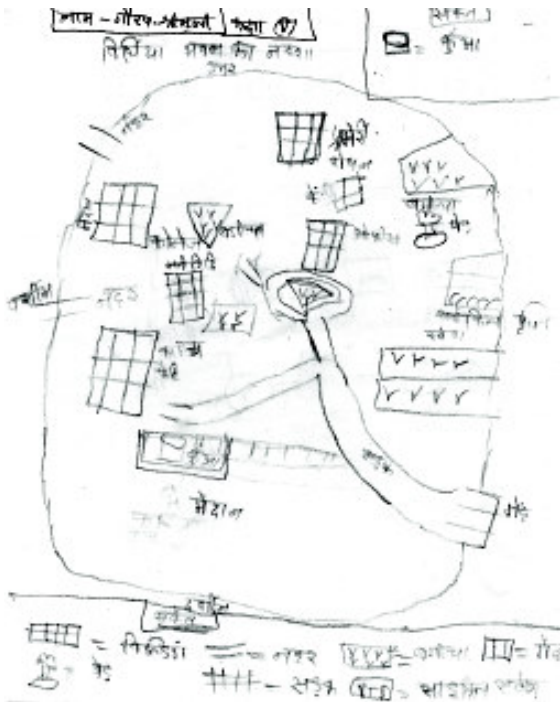
The first issue of the publication has contributions from student teachers, school teachers, teacher educators, researchers and policy makers from schools, DIETs, CTEs, IASEs, SCERTs and NGOs of experiences they value. We invite you to write about any of your memorable experiences from your professional life that excite, motivate, encourage, initiate reflection or provoke some other form of engagement and send it to us so that we can share it with everyone. You can also send in questions or comments on issues that concern you and you feel need public discussion. Contributions may be sent to: rajan.janaki@gmail.com, and vbsudr@yahoo.com

बच्चों ने बनाया नक्शा

पर्यावरण की पुस्तक में बच्चे हमेशा भारत का नक्शा देखते थे। धीरे-धीरे वे भारत में राज्यों की स्थिति और राजधानियाँ पहचानने लगे। फिर उन्होंने कक्षा-पुस्तकालय में एटलस का उपयोग करना शुरू किया। वे एटलस में कई तरह के खेल भी खेलते थे, जिसमें उन्हें पूछे गए स्थान को ढूँढना बहुत अच्छा लगता था। इस तरह वे एटलस में कई स्थानों से परिचित हो गए। जब वे किसी पाठ में किसी भी शहर के बारे में पढ़ते हैं तो तुरन्त उन्हें नक्शे में ढूँढना शुरू कर देते हैं। अब नक्शे पढ़ना उनके लिए एक रोचक गतिविधि हो गई और वे अपने खाली समय में अन्य किताबों के साथ नक्शे देखने का काम अक्सर करने लगे।

कक्षा पाँच के बच्चों ने पर्यावरण में गोलकोंडा के किले के बारे में पढ़ा। उन्होंने नक्शे में गोलकोंडा ढूँढना शुरू कर दिया। परन्तु जब उन्होंने गोलकोंडा के किले का नक्शा देखा तो वे इसमें कुछ संकेत समझ नहीं पाए लेकिन उन्होंने नक्शा पढ़कर समझने का प्रयास किया और वे सफल रहे। अब बात आई नक्शा बनाने की।

मैंने उनसे कहा कि तुम दिशाओं के बारे में पढ़ चुके हो इसलिए अब इस नक्शे के आधार पर तुम सब अपने विद्यालय का नक्शा बनाओ, जिसमें अपने परिसर की सभी चीजों को बगीचे, भवन, सड़क, नहर, मैदान आदि अलग-अलग संकेत से दर्शाना है। बच्चों को मज़ा आ गया, क्योंकि कक्षा से बाहर जाकर काम करना बच्चों के लिए आनन्ददायक होता है। उन्होंने तय किया कि हम सब बीच वाले भवन की छत पर चढ़कर सभी चीजों की स्थिति देखेंगे फिर नक्शे में बनाएँगे। सब बच्चे छत पर चढ़ गए उन्होंने पूरे परिसर की स्थिति को ध्यान से देखा और नक्शा बनाना शुरू किया। बच्चों ने सारी चीजों को भलीभाँति नक्शे पर दर्शाया परन्तु जब वापस कक्षा में आकर उन्होंने अपने नक्शे एक-दूसरे के साथ मिलाए तो उन्हें बड़ा अटपटा लगा कि किसी ने नहर गलत जगह बना दी तो किसी ने झूले की स्थिति गलत बनाई है। कोई कह रहा है, मेरा सही है तो उसका साथी कह रहा है नहीं मेरा सही है। सब मेरे पास इकट्ठे हो गए कि मैडम बताएँगी किसका सही है।



Voices of Teachers and Teacher Educators

मैंने उनसे कहा कि जब तुमने अपनी कक्षा का नक्शा बनाया था तो तुम्हीं लोगों ने मिलकर ठीक किया था और गलतियाँ सुधारी थीं तो अब इसे भी सब मिलकर अपने-अपने समूह में इसे सही करो। परन्तु एक बात का ध्यान रखना कि जब कोई अनजान व्यक्ति ये नक्शा देखे तो वह स्कूल की स्थिति को समझ पाए।

कुछ बच्चों ने कहा मैडम कक्षा के नक्शे में तो केवल आगे-पीछे ही सही करना था पर इसे नक्शे में तो सब इधर-उधर हो गया है। तो फिर मैंने सोचा एक बार वापस चर्चा करने की जरूरत है। मैंने बच्चों से पूछा, चलिए हम पहले नक्शे में कौनसी दिशा तय करें, सबने अलग-अलग जवाब दिए लेकिन कुछ ही देर में सब उत्तर दिशा पर सहमत हो गए सबने अपनी फाइल में उत्तर दिशा सबसे ऊपर लिख ली फिर उन्होंने यह तय किया कि विद्यालय में कौनसा भवन उत्तर की तरफ है और सबसे पहले उसे बना दिया, अब इस भवन के पूर्व में क्या है? और पश्चिम में क्या है? ये देखते गए और सारी चीजों के संकेत बनाते गए। अब धीरे-धीरे वे सब एक-दूसरे से मिलाते हुए नक्शा बना रहे थे और सबका नक्शा एक जैसा बनता जा रहा था और वे मुझे भी बता रहे थे कि इस तरफ क्या बनाना है? इसके बाद सभी ने एक-दूसरे से ग्रुप में पूछा कि बगीचे के पूर्व में क्या बनाया है और नहर के पश्चिम में या दक्षिण में क्या है? तब सभी ने कहा कि अब नक्शा सही बना है और फिर उन्होंने अपने-अपने संकेत भी नीचे लिखे और उन स्थानों के नाम भी संकेत के सामने लिखे।



इतना सब करने के बाद वे इस निश्चय पर पहुँचे कि कोई भी नक्शा, कोई भी व्यक्ति पढ़े, पर सभी उसे दिशाओं के आधार पर समझते हैं और उससे सही स्थान पर पहुँच सकते हैं। अब वे केवल नक्शा पढ़ने की ही नहीं, नक्शा बनाने की कला भी काफी हद तक समझने लगे हैं।

अनिल कुमार तेवतिया

राज्य शैक्षिक अनुसंधान एवं प्रशिक्षण परिषद, दिल्ली द्वारा निर्मित एवं दिल्ली पाठ्य पुस्तक ब्यूरो द्वारा प्रकाशित प्राथमिक स्तर पर

गणित की पाठ्यपुस्तक बनाना

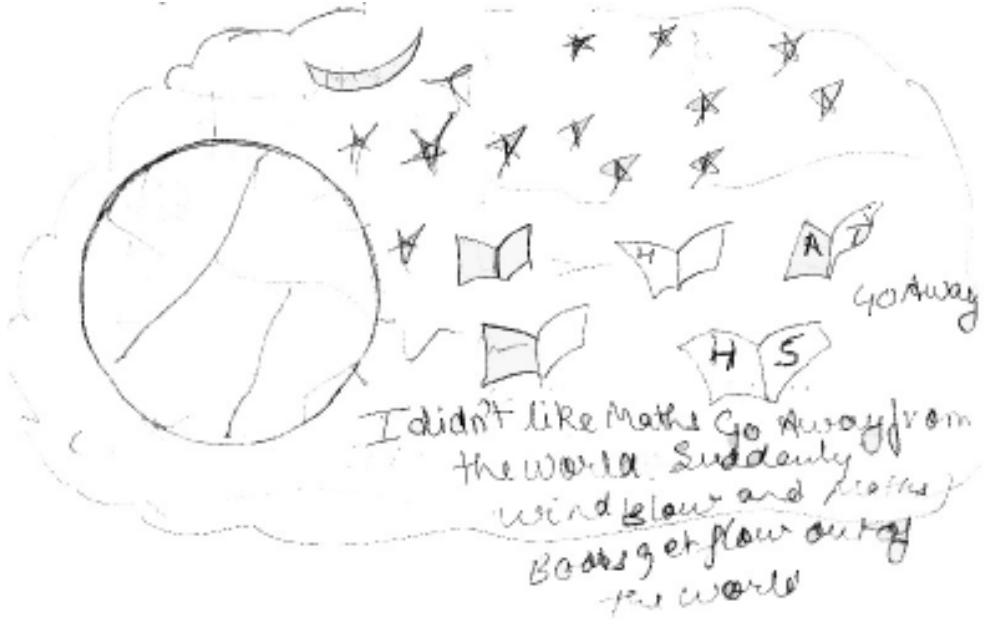
गणित की शिक्षा ऐसी होनी चाहिए जिससे बच्चों के वे संसाधन समृद्ध हों जो चिंतन और तर्क में, अमूर्तनों की संकल्पना करने और उनका व्यवहार करने में, समस्याओं को सूत्रबद्ध करने और सुलझाने में उनकी सहायता करे। गणित शिक्षण की इस उद्देश्य की प्राप्ति उस प्रासंगिक एवं अर्थपूर्ण गणित को पढ़ाकर की जा सकती है जो उनके अनुभवों एवं दैनिक जीवन से जुड़ा हो क्योंकि दैनिक जीवन में बच्चे समस्या को हल करने व विश्लेषण के कौशल का उपयोग करके ही विभिन्न प्रकार की समस्याओं का बेहतर तरीकों से सामना कर सकेंगे। इसी क्रम में राज्य शैक्षिक अनुसंधान एवं प्रशिक्षण परिषद् द्वारा निर्मित प्राथमिक स्तर पर गणित की पाठ्यपुस्तकों का मूल उद्देश्य था—

- ज्ञान की पुनर्रचना में बच्चे की केन्द्रीय भूमिका
- सरल भाषा व शैली द्वारा गणित शिक्षण को सरस व रोमांचक बनाना
- बच्चे की बुनियादी मूल्य संरचना और भविष्य के प्रति दृष्टिकोण का निर्माण

- बाल मनोविज्ञान एवं दैनिक अनुभवों को समेटते हुए गणित के ज्ञान का संप्रेषण

राज्य शैक्षिक अनुसंधान एवं प्रशिक्षण परिषद् एवं सर्व शिक्षा अभियान द्वारा संचालित इन्द्रधनुष कार्यक्रम में प्राथमिक स्तर पर गणित की पाठ्यपुस्तकों पर विस्तार से चर्चा हुई थी। चर्चा के दौरान एक शिक्षक ने अपने अनुभवों में बताया कि प्राथमिक स्तर पर गणित की पाठ्यपुस्तकों को दैनिक अनुभवों एवं दैनिक व्यवहार से जोड़कर लिखा गया है। पाठ्यपुस्तकों में हम गणित को अपने चारों ओर अनुभव करते हैं अर्थात् दैनिक जीवन का कोई भी पहलू गणित से अछूता नहीं है। पाठ्यपुस्तकों में अध्यायों के नाम रोजमर्रा की बोलचाल वाले हैं एवं पाठ की शुरुआत कहानी या किसी खेल से शुरू करके पाठ को इस प्रकार विस्तार दिया गया है कि पाठ के अन्त तक पहुँचते-पहुँचते पाठ में निहित अवधारणा पूर्णतया स्पष्ट हो जाती है।

एक अन्य शिक्षक ने अपने अनुभवों में बताया कि प्राथमिक स्तर पर गणित की पाठ्यपुस्तकों में एक-एक



Voices of Teachers and Teacher Educators

अवधारणाओं पर बने छोटे-छोटे अध्याय अधिगम के दृष्टिकोण से बहुत ही प्रभावशाली है। छोटे-छोटे अध्यायों में विद्यार्थियों की रुचि बनी रहती है। प्रत्येक अध्याय में करके सीखने पर बल दिया गया है क्योंकि बच्चा गलती करके सीखता है तो अधिगम स्थायी होता है। पाठ में निहित अवधारणाओं को क्रियाकलापों एवं गतिविधियों द्वारा बहुत प्रभावशाली तरीके से स्पष्ट किया गया है। अवधारणाओं की क्रमबद्धता एवं स्तर का पाठ्यपुस्तकों में विशेष ध्यान रखा गया है।

शिक्षकों ने अपने अनुभवों में बताया कि अवधारणाओं को क्रियाकलापों एवं गतिविधियों द्वारा स्पष्ट करने की वजह से सभी अभ्यास अन्तर्क्रियात्मक है। प्रत्येक अभ्यास सतत एवं व्यापक मूल्यांकन पर आधारित है। व्यापक मूल्यांकन पर आधारित अभ्यास विद्यार्थियों को अवधारणाओं को रटने के बजाय समझने में अधिक सहायता करते हैं। अभ्यास के अन्तर्गत खेल, पहली इत्यादि विद्यार्थियों को मौलिक रूप से सोचने एवं करके सीखने के पूर्ण अवसर प्रदान करते हैं। अंकों से जुड़े गणितीय खेल, पहलियाँ तथा कथाएँ बच्चों रोज़मर्रा की समझ का निर्माण करती हैं।

एक शिक्षक ने अध्यायों के नामों के बारे में चर्चा की कि अध्यायों के नाम गणित की शब्दावली से संबन्धित न होकर दैनिक जीवन के रोचक पहलुओं से जुड़े होने के कारण विद्यार्थियों में अध्यायों को लेकर उत्सुकता बनी रहती है। पाठ्यपुस्तकों में अवधारणाओं को यन्त्रवत् सीखने की बजाय उन्हें दैनिक जीवन के रोचक पहलुओं से जोड़कर समझने का प्रयास सराहनीय है। पाठ्यपुस्तकें अवधारणाओं को रटने एवं प्रश्नावली हल करने के स्थान पर गतिविधि आधारित शिक्षण, करके सीखने पर बल एवं खेल-खेल में शिक्षण पर बल देती हैं जो बाल मनोविज्ञान के सिद्धान्तों के अनुरूप हैं।

भाषा के अत्यधिक प्रयोग के स्थान पर आवश्यक चित्रों को पाठ्यपुस्तकों में अवधारणाओं को स्पष्ट करने हेतु उचित स्थान दिया गया है। सरल भाषा व शैली द्वारा गणित शिक्षण को सरस व रोचक बनाया गया है। पाठ्यपुस्तकों में अध्यायों को इस प्रकार सँजोया गया है कि विद्यार्थियों को लगता है कि ये सब तो उसके आस-पास होने वाली ही चीज़ें हैं। सभी नाम, खेल उसके जाने पहचाने से हैं, जो गणित के अध्ययन के प्रति उसकी रुचि को बढ़ाते हैं। गणित के अध्ययन के प्रति उसकी रुचि के चलते बच्चे गणित से भयभीत होने के बजाय गणित का आनन्द लेते हैं।

चर्चा के दौरान एक शिक्षक ने बताया कि गणित के

अध्ययन में सूत्रों व यांत्रिक प्रक्रियाओं से आगे भी बहुत कुछ है। इन पाठ्यपुस्तकों ने साबित कर दिया है कि गणित में भी संप्रेषण संभव है।

वास्तव में पाठ्यपुस्तकों की सफलता उसकी भाषा शैली, अध्यायों के विस्तार, अवधारणाओं को सपष्ट करने पर निर्भर करती है। अधिकांश शिक्षकों की दृष्टि में स्कूली गणित जिन परिस्थितियों में सीखा जाना चाहिए वे सभी इन पाठ्यपुस्तकों में समाहित हैं, जो निम्न है—

- बच्चे गणित में आनंद लें
- बच्चे महत्वपूर्ण गणित सीखें
- गणित बच्चों के जीवन अनुभव का हिस्सा हो जिसके बारे में वे बातें करें
- बच्चे अर्थपूर्ण समस्याएँ प्रस्तुत करें और हल ढूँढ़ें
- बच्चे सम्बन्धों और संरचनाओं की सोच बनाने में अमूर्त विचारों का प्रयोग करें
- बच्चे गणित की मूल संरचना को समझें तथा शिक्षकों से अपेक्षा है कि वे प्रत्येक बच्चे को कक्षा की प्रक्रियाओं के साथ जोड़कर रख सकें



Sometimes, I like Maths but
Sometimes, I do
(over) not like Maths

निष्कर्ष रूप में सभी अध्यापक इस बात पर सहमत थे कि बाल मनोविज्ञान, खेल-खेल में शिक्षण, कहानी आधारित शिक्षण, करके सीखना, शिक्षा बिना बोझ के इत्यादि सभी शिक्षण सिद्धान्तों पर राज्य शैक्षिक अनुसंधान एवं प्रशिक्षण परिषद् द्वारा निर्मित प्राथमिक स्तर पर गणित की पाठ्यपुस्तकें खरी उतरती हैं।

नई किताब के पन्ने

चूहा बिल्ली खेलें पकड़न-पकड़ाई

चूहा और बिल्ली ने तय किया है कि वे दोनों एक कूद, एक साथ लगाएंगे।

बिल्ली एक साथ 4 खाने कूदती है।
चूहा एक साथ 2 खाने कूदता है।
बिल्ली चूहे को किस पत्थर पर पकड़ सकती है?

बिल्ली अगर सातवें खाने से कूदना शुरू करे और चूहा अठारहवें खाने से कूदना शुरू करे तो क्या बिल्ली चूहे को पकड़ लेगी?

अंदाज़ा लगाओ

तुम्हारे कमरे की दीवार कितनी लंबी है? दीवार देखकर अंदाज़ा लगाओ।

अब 'मीटर रस्सी' को दीवार के एक किनारे पर रख दो। फिर अंदाज़ा लगाओ।

अब 'मीटर रस्सी' से दीवार' माप लो।

मेरा पहला अंदाज़ा

मेरा दूसरा अंदाज़ा

मेरा तीसरा अंदाज़ा

मेरा माप

कितने कदम कितनी दूर

- 'मीटर रस्सी' को मदद से फर्श पर या खेल के मैदान पर 10 मीटर की दूरी मापकर निशान लगा लो।
- अब आराम से कदम गिनते हुए शुरु वाली जगह से 10 मीटर वाले निशान तक चलो।
- तुमने कितने कदम में 10 मीटर की दूरी तय की?
- सोचो! एक मीटर में तुम कितने कदम चले?
- अंदाज़ा लगाओ, तुम्हारा एक कदम कितने सेंटीमीटर लम्बा था?
- अंदाज़ा लगाओ, तुम्हारी दीवार कितने कदम लम्बी होगी?
- अब कदमों से मापकर देखो।

किताबें और बच्चे

कहानी सुनने का मुझे हमेशा से शौक रहा। ये आदत मेरी तब से बनी जब मैं छोटी थी। मैं हिमालय के ऐसे इलाके में जन्मी जहाँ 3-4 महीने बर्फ गिरा करती थी। घर से बाहर जाने का कोई मतलब नहीं था। संयुक्त परिवार था मेरा। पड़ोसी भी दूर-दूर रहते थे। सर्दियों में सायं 4 बजे ही दरवाजे बंद हो जाते थे। अब क्या करें। हम आग तापते हुए बुखारी के पास बैठे अपनी दादी, बड़ी बहनों के साथ बस कहानियाँ सुना करते थे। कहानी सुनते-सुनते दादी का कहना था 'हूँ-हूँ' करते रहो। शायद 'हूँ-हूँ' कहना आज के शब्दों में सुनाना समझना क्रियाशीलता रहा होगा। ढेरों कहानियाँ मेरी दादी के पास थीं। उनमें महाभारत के किस्से आदि कहानियाँ बच्चों को हमारे नज़दीक लाती हैं उनकी कल्पनाशक्ति को विकसित करती हैं। उनमें आत्मविश्वास भरती हैं। कहानी हमें शिक्षक नहीं बच्चों का साथी बनाती है।

इसी अनुभव का लाभ उठाते हुए मैंने विद्या भवन जूनियर स्कूल में पुस्तकों एवं पुस्तकालय पर विशेष ध्यान दिया गया। पुस्तकालय जो शाला में ऊपर अलमारियों में रहता था इसको बच्चों के सामने लगाया। उसको मैं 'बेहतर शिक्षण सामग्री सुसज्जित कक्ष' कहना पसंद करूँगी। इसके पीछे हमारा उद्देश्य था बच्चे केवल शिक्षक के द्वारा दिए गए ज्ञान पर ही निर्भर न रहें बल्कि स्वयं सक्रिय रहते हुए सहजता से किताबें ढूँढकर सीखने का प्रयास करें।

पुस्तकालय के तीन भाग बनाए गये। पहला 'कक्षा पुस्तकालय' जिसकी ज़िम्मेदारी बच्चों को दी गई। कक्षा में एक अलमारी या रैक लगाकर उसे बच्चों का कॉर्नर बनाया गया। बच्चों को पूर्ण स्वतंत्रता दी गई कि वे पुस्तकालय प्रभारी से अपनी पसंद की पुस्तकें उनमें रखें। पुस्तकालय प्रभारी बच्चों में से चुनने को कहा। बड़े अच्छे सुझाव आए किसी ने कहा एक सप्ताह लड़कियों को सौंपा जाए, किसी ने कहा- रजिस्टर के अनुसार। अन्त में निर्णय लिया गया कि कक्षा की प्रत्येक कतार में से 2-2 बच्चे लिए जाएँ।

बड़े सुन्दर परिणाम आए। बच्चों ने अपने नियम बनाए। कुछ उदाहरण इस प्रकार हैं-

- पुस्तकें पढ़कर उनकी जगह पर रखें
- फट जाए तो चिपका देना
- पूछकर घर ले जा सकते हो
- खाना खाकर पुस्तकें पढ़ सकते हो
- कल पुस्तकें बिखरी हुई थीं कृपया लास्ट में रखने वाला बच्चा पुस्तकें लगाकर जाए

इन नियमों ने कक्षा व्यवस्था में सुन्दर परिवर्तन किया। कई बार एक छोटी सी स्लीप हमारे लिए भी कक्षा में पहुँचा दी जाती थी 'दो किताबें नहीं मिल रही हैं।' या 'कुछ बच्चे रैक से किताबें लेकर अपने डेस्क में छुपा लेते हैं।' कभी-कभी शिकायत भरे वाक्य भी लिखकर हमें बच्चे देने लगे। जैसे पुस्तकों में से बच्चे चित्र फाड़ रहे हैं। पुस्तकालय लीडर द्वारा लिखे गए नियम हमें बताने लगे भाषा सीखने के लिए, एक मार्ग नहीं अनेक मार्ग पूर्णता में सहायक हैं। इस प्रकार भाषा कौशल का विभिन्न परिस्थितियों में विकास हो रहा था।

सभी शिक्षकों का अपनी कक्षा में छोटे से पुस्तकालय में सहयोग मिल रहा था। पन्द्रह दिन बाद बच्चे इन पुस्तकों को सेन्टर लाइब्रेरी से बदलकर लाते थे। जिस दिन पुस्तकें नई आती बच्चों में बाँटने-छाँटने की होड़ लग जाती। इस हलचल में लगता पुस्तकें अलमारी से निकल नन्हे हाथों में आकर बहुत कुछ देना चाहती हैं।

लघु पुस्तकालय का एक भाग विषय कक्षा में था। वहाँ प्रत्येक विषय विज्ञान, भाषा, गणित संबंधी पुस्तकें रखी गईं। जब भी विषय पढ़ाया जाता उनमें से चार्ट बनाने, सप्ताह प्रोजेक्ट, थीम पर लिखने, करने को शिक्षक उन्हें प्रेरित करती। बच्चे उन पुस्तकों को घर भी ले जाते। बच्चे जो भी उनमें से पढ़ते-ढूँढ़ते-लिखते उन्हें वे दूसरों को भी बताते। कई बार पाठ पढ़ते हुए कुछ बातें वे कक्षा में दोहराते, प्रश्न उठाते कि उस पुस्तक में कुछ और भी बताया है। इस विषय पुस्तकालय में बच्चों को जानने-बटोरने के लिए इधर-उधर दौड़ना नहीं पड़ता था- कक्षा-कक्षा को क्रियाशील बनाया जा रहा था।

पुस्तकालय का तीसरा भाग जूनियर स्कूल का मुख्य पुस्तकालय बीच में बनाया गया। यह पुस्तकालय

शिक्षक, बच्चे, चतुर्थ कर्मचारी एवं अभिभावकों को सदैव आकर्षित करता रहा। इसकी बैठक व्यवस्था नीचे दरी बिछाकर, चौकियाँ लगाकर की गईं। इसमें बच्चे किसी भी कोने में सेन्टर में चाहें तो टॉग फैलाकर दीवार का सहारा लेकर पुस्तकें पढ़ सकते हैं। ढेरों पुस्तकें प्रातः बच्चों के आने से पूर्व चौकियों पर रख दी जातीं। प्रत्येक विषय में एक लाइब्रेरी का कालांश भी जोड़ दिया गया। जिससे प्रत्येक विषय के साथ शिक्षक बच्चों के साथ पुस्तकालय में आने लगे। एक अलमारी में शिक्षकों के लिए पुस्तकें स्टाफ रूम में भी रख दी गईं जिससे वहाँ भी पुस्तकों का लाभ लिया जा सके।

समय-समय पर पुस्तकालय प्रभारी द्वारा पुस्तक प्रदर्शनी, विद्या भवन शिक्षा केन्द्र से ढेरों नई पुस्तकें बच्चों को आकर्षित करते रहे। पुस्तकालय का रूप बदल रहा था। जिसका परिणाम बच्चों में दिन प्रतिदिन दिखाई दे रहा था। मैंने पूर्व में जो कहा उसे दोहराना चाहूँगी- बच्चे पुस्तकें छुपा रहे थे। उस पर हमने जानने की कोशिश की। जिन बच्चों ने पुस्तकें छुपाई थीं उनका कहना था- हमारी कहानी अधूरी रही गई थी। फिर वो किताब इधर-उधर हो जाती। हमने पूछा कहाँ छुपाई। वे दौड़कर गए हमें जगह दिखाई। दरी के नीचे या अलमारी के पीछे। इतनी सरलता से पढ़ने के कौशल में वृद्धि हो रही थी।

कैसे पता चला बच्चे पढ़ रहे हैं? मैंने प्रार्थना में गिनती की। कितने बच्चे जल्दी स्कूल आते हैं। करीब 20-25 बच्चे खड़े हुए जिनमें से 10 बच्चे सुखे जीवन ज्योति के थे बाकी बच्चे आस-पास के। उनसे फिर

पूछा, “यहाँ आकर क्या करते हो? कोई शिक्षक तो होता नहीं।” उनका कहना था, “हम जब आते हैं हमें अकेले में कहानी पढ़ने का अच्छा मौका मिलता है।” पूछने पर उन्होंने अपनी पसंद की पुस्तकों के नाम भी बताए। कुछ लड़कियों ने अपनी कहानियों के शीर्षक तक लिखे हुए थे। कुछ ने उनमें चित्र भी बना रखे थे।

बच्चों की रुचि लगातार बढ़ती जा रही थी। कई बार बच्चों के बीच बैठकर देखा कि कक्षा तीन के छोटे बच्चे केवल पन्ने नहीं पलटते। छोटे-छोटे वाक्यों में लिखे चुटकले, पहेलियाँ, एक-दूसरे को सुनाते हैं। चित्रों की कहानियाँ पढ़ते हैं। बस अंतर केवल ये रहता है ये छोटे बच्चे बोल-बोलकर पढ़ते हैं और पाँचवीं के बच्चे मौन पठन करते हैं। लेकिन मुझे आश्चर्य हो जाता था कि जो बच्चे पाठ्यपुस्तक का पाठ पढ़ते हुए कई बार बीच में शब्द के लिए रुकते थे तब आगे बढ़ते थे। वे कहानी पढ़ते हुए बीच में कभी नहीं पूछते बस पढ़ते रहते हैं।

बच्चों की कल्पना और सोच विकसित करने तथा नवीनता पाने का पुस्तकालय और कहानियाँ अच्छा श्रेष्ठ साधन है। इन पर वे खूब चर्चा करते हैं उदाहरण देते हैं। हँसते हैं, भावात्मकता ग्रहण करते हैं समझना उन्हें आ जाता है। कई चुनौतियाँ वे कहानी में जान लेते हैं। सामनेवाले की चालाकी समझकर प्रतिक्रिया व्यक्त करते हैं। उन्होंने जो सुना, जो पढ़ा उसमें उनकी स्मृति का विकास, घटनाओं, विषय से जोड़ना स्वतः आ जाता है।

From IASEs, SCERTs and DIETs: Through the lens of a teacher educator

Abstract

The article is a first person account that attempts to map the potentialities of IASEs, SCERTs, DIETs to break fresh ground in the various issues related to universal elementary education and transformation of school systems in Delhi as viewed from her experiences with these organizations over 18 years.

I began to work with IASE, Delhi University in 1994, at a time when the B.El.Ed. program was being launched there. I was 40 years old; I had been principal of a minority teacher education college at Hyderabad, had taught for several years in schools and considered myself an established teacher educator with proven success in my profession. The IASE team was small, 8-10 members in all, and some of them were eminent people in education. The culture of the group was to sit together and ask each other what they wish to do, what is the focus? As a new member, I was immediately asked what role I see for myself at IASE. Being new to Delhi professionally, although my under-graduate degree was from Delhi University, I was eager to be put to test. As the pre-service initiative was well developed through the B.El.Ed. program, I opted to work on in-service programs.

My suggestion was closely followed up with detailed questioning. What does teacher education mean? What basic assumptions did I have in mind? What is the value of what I proposed? In-service training for whom—teachers? teacher educators? There were around one lakh teachers in Delhi, many educators at SCERT and several DIETs. What value could I bring to these teachers and teacher educators? It became very clear that the expectations from the senior members of the team were that whatever is attempted must be well-grounded and must have potential to be pace-setting. I could not just say I want to conduct so many programs; I would have to think through more deeply. I also learnt not to 'shoot off' suggestions, as I knew they would be questioned.

The IASE had an excellent library and though I did get ideas from reading, it became clear to me that while something might have been a good initiative, say, in Arizona, I would definitely be asked how it was pertinent to Delhi. It took me six months to think through the notion of in-service education. I also eagerly joined another initiative at the IASE, on policy analysis with special reference to universal elementary education. It involved analyzing policy documents and their implications; and the critique enabled me to mentally discard many of the prevailing assumptions of in-service education the team clearly had, that however well meaning or informed by readings, a three-week, stand-alone program is not likely to address the issue of teacher and system transformation.

I considered myself somewhat sensitized towards the issues in school education. My brief interactions with the Hoshangabad Science Teaching Program, which, for over two decades by then had evolved a unique engagement with science teachers of several districts in Madhya Pradesh. An educator there changed my world view gently but irrevocably on equity. My own experiences as controller of examinations at a minority college in Hyderabad from 1988-90 is sharply etched in my memory—the travails of first generation learners of the Muslim minority community. The questions raised at IASE resonated with these past experiences, and went far beyond.

It took six months for me to come up with a proposal for in-service teacher education. The

idea was to develop a model which would attempt to have systemic impact; it had to be contextual, based on geo-cultural realities and also be large enough for replication but intimate enough to provide fine-grained understanding. The Lonsdale Program led by one of the senior members of IASE was invaluable ground on which I gained perspective.

In order to plan an effective in-service teacher education program, I proposed a three-day workshop on 'Differential perceptions of parents, teachers and administrators on school education' to be held in Jahangirpuri, a cluster with 22 primary and 9 secondary schools, since a meaningful in-service program cannot be visualized without consulting all stakeholders. The workshop had over 300 participants and was designed to provide an equitable platform to all concerned to articulate their views on school education. It was one of a kind, and the issue that emerged resonated for many years among all concerned. We also had to seek partners beyond our small team from among NGOs, researchers, students, civil society members. I henceforth refer to them as 'we' a large group of people and groups who supported IASEs work.

These workshops soon became an annual feature under the Jahangirpuri School Project. Following this, in-service education took shape as school based teacher development in many forms: interaction of class 5 teachers with class 6 teachers to bridge the gap of accountability on what children learnt in primary and middle schools; classes for illiterate mothers on school curriculum so they understand what their children were learning; women empowerment workshops; school visits by mothers; after-school interaction with children and many others. Each of these initiatives fed into the teacher development workshops. Teachers in turn, spoke about their problems- teacher shortage, the many non-academic duties outside of school, the need for content refreshment, and their own views of children and parents of impoverished communities. Then children asked that they too be included so that their views on schooling may also be heard by teachers.

It was inevitable that such an engagement with parents, children and teachers would lead

to systemic issues. We had no choice but to support and where possible intervene. Several parents complained that their children were not being admitted because the last date for admission was over; illiterate parents have no means of knowing such last dates. With over 200 such requests, we had no option but to request the Municipal Corporation of Delhi (MCD) to admit the children. This decision bridged the divide between what universities are strictly supposed to do, and what is the administrators' domain. Since admissions were based on catchment areas, student-teachers took up this issue on a designated day with each school, with written requests. Within a week, the MCD issued a fresh government order to admit the children. As the order was not specific to Jahangirpuri but to the whole of Delhi, several groups supported children in other parts of Delhi to gain admission. We later learnt that over two thousand additional children got admission in Class 1 that year. How best to welcome these children into school then became part of the teacher development workshops.

A complementary part of this process was the introduction by one IASE member, the Feuerstein Instrumental Enrichment Program, a classroom curriculum designed to enhance the cognitive functions necessary for academic learning and achievement. The fundamental assumption of the program was that intelligence is dynamic and modifiable, not static or fixed. This initiative integrated the central concerns about teaching-learning of first generation learners into the in-service initiative to address the wide spread perception that teacher education institutions do not have sufficient research based models for quality teaching-learning in classrooms.

When institutions of higher education base initiatives on core stakeholder issues, it also means that one cannot have a static blueprint for work, with clear, measurable outcomes. These cannot be predicted in advance. However, while performance indicators are not pre-determined in this process, they still necessarily have to exist. The broad indicator for us: Did children and parent concerns get addressed? Did teachers feel that we were providing relevant and adequate academic support?

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We were effective at some levels: the administration did make sure that sufficient teachers were in place in schools. It took policy changes to make this happen, as with the issue of admissions. In other cases, it was beyond even the control of administration, and had to be settled in the courts. Corporal punishment was one such issue. At that time, an NGO, Parents Forum for Meaningful Learning had moved to the Supreme Court to prevent corporal punishment. Part of our in-service work was to document such instances and contribute an affidavit to support the banning of corporal punishment. Did it antagonize the teachers? It could have, but the enlightened opinion of mothers prevented this from becoming so. When one case of punishment resulted in a child's arm being broken, mothers were insistent that the teacher must not be publicly challenged, and must face consequences through due process of law. Reason? They felt that if teachers are denounced in general, then their children will not listen or respect them as a category and without the teachers, the children have no hope of education.

Subject refreshers happened too. They were tempered with local examples, questions that emerged from the mothers' workshops with their children's books. One instance stays fresh for me. The women pointed to the lesson on 'eclipse' and demanded we tell them what was being taught in that lesson. As we were struggling to begin the explanation, we were struck by the fact that the lesson on 'eclipse' in the textbook did not explain the concept of shadows. Without an understanding of shadows, how can 'eclipse' make sense? We improvised, as we each stood in the narrow beam of sunlight streaming in from a window into a room in the slums, to point out our silhouettes in the wall across. What followed is in retrospect:

Woman 1 : Is it true that a man has stood on the moon?

Woman 2 : We saw it on TV.

Woman 3 : We also stand on the moon in our *mela!* How is what we saw on TV different? Maybe the man was standing in his American *mela!*

Woman 4 : I don't like eclipse days. We all have

so much fun shopping and cooking together, but on eclipse days some of us hide inside the home and it is not fun anymore.

Woman 1 : Is it true that if we are pregnant and we don't hide from eclipse and eat anything our child will be deformed

Woman 3 : No, I was afraid and hid from eclipse when my child Bolu was born, but I was thirsty and ate a piece of watermelon but Bolu is fine!

Woman 5 : I did not hide from eclipse, and ate as usual, it is not in our culture to do so, but I wonder? My child does not speak, and he is 2 years old.

Woman 3 : Is it true we get punished by *Rahu* and *Ketu*? Can they punish those who do not believe in them?

Woman 6 : Do you teach any of this in the book to our children?

As we proceeded to lay out the principles of solar and lunar eclipse from the textbook, using flour to trace the ray diagrams on the floor of the room, they became quiet, withdrawn; they did project accurately on the floor, the diagrams when there would be eclipse, but they were disconnected. We had not done a good enough job of connecting their superb and alive rationalities and linkages of myths and folklore to textbook rationalities. We were immeasurably humbled: by the textbook and its sterility and our own tacit acceptance of it; by the utter inadequacy of what we were providing in the name of 'in-service content refresher' to the teachers, and our being so naively confident of our knowledge. However, most of all, we were humbled by the sheer fluency of ideas and connections that these women can effortlessly bring into the most complex of issues.

The meetings with women's groups in Jahangirpuri were a constant learning ground for teacher educators. I had read a lot about evaluation, the ills of our present colonial system of examinations, about who fails when a child gets less than pass marks. Is it we who fail, or is it the child? These I had learnt from literature and was convinced of it. We learnt anew from a

woman and her friend who made their living as rag-pickers and who had taken her child out of school in class 3 at Jahangirpuri. We remonstrated with her and her friend, urging them to permit the child to continue in school. They asked us to visit their home. What followed when we reached there:

Woman : You educated people think we do not know anything. Come, come, come inside and see.

We entered a 6x6 room built of mud and polythene for roof and a door made of crate wood. Behind the door on a hook was a school bag. She took it and opened it and laid it before us at the centre of the room on a mat. We examined the books and notebooks. The notebooks were several, and the child had filled most of them fairly legibly, as we turned the pages, on different subjects.

Mystified, we exclaim: But he has learnt so much!

Woman : Oho, so you think he has learnt so much! How do you know that?

One of us : Because, he has written so much about so many things!

Woman : Don't think you can fool me! I used to work as a housemaid. I know what happens in really good schools! Do you see any (gestures with her hand) any ticks? Any (gestures with her hand) crosses? In red ink?

We seek fruitlessly for any sign in red or otherwise: There were none in each of the five notebooks.

Woman : Aha! I know how your children are taught! Everything is checked, and when something is wrong, it is marked wrong and the child has to write it three times.

Woman's friend : I am from Himachal Pradesh. I came here so that my child can learn how to bring water from downhill to uphill-then we will be so happy in our home. But even after studying till class 4, these things are not taught.

The high level of expectations from illiterate parents from education is painfully at variance with the rather minimalistic approach to curriculum issues in government schools.

In 2000, I was made Director, SCERT Delhi and its 7 DIETs (now 9) for six years. The lessons of IASE stood in great stead. The DIETs held a three-day workshop on 'Agenda for DIETs'. They undertook collective study of the DIET guidelines, not so much in the administrative sense, but in terms of their academic agenda for universal elementary education. At SCERT, the search for partners widened to include NGOs, researchers, interested individuals, and many were willing. To provide a structure, they were designated as 'Community Watch Groups for School Education' and around 600 such groups were formed by the end of 2001. DIETs were the nodal agencies where these community watch groups met to discuss issues and evolve strategies. Indeed, DIETs played a major role along with the community watch groups in taking up several issues, such as the need for affidavits signed by the district magistrate if a child did not have a birth certificate in order to be admitted to school. This led to the questioning of the Delhi School Education Act and eventually, the affidavit was replaced by policy with self affidavit with signature/thumbprint of parents. Due to these efforts, the UEE Mission was created in Delhi, where the administration had staunchly denied that there were no children out of school, and if they were, it was because parents were too greedy to make them work. MCD conducted the first ever survey of out-of-school children. Around one lakh twenty thousand out of school children by name, parents name and *jhuggi* number were recorded. MCD admitted several thousands of these children into their schools. Several new schools were sanctioned. Tent schools were replaced with proper buildings. Although government policy designated the school/schools into which a child could be admitted, known as catchment area schools, there were no written records as to what constituted a catchment area. DIETs, along with the zonal education offices, mapped the catchment areas manually through dialogue with heads of schools with academic support from the geography teachers of the government schools. The Directorate of Education then converted these into digital maps. Today

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Delhi has a well-defined policy for admissions and for smooth transition of children from primary to middle schools as a result of these maps.

As more children began to enter the schools through the revised policies, focus shifted to the shortage of teachers in almost every school. As SCERT-DIETs had been at the forefront along with student teachers and community watch groups, we began to look for ways to address the problem in the short-term, while additional teacher requirement was worked out and they were recruited. Two strategies emerged. DIETs attempted to identify retired teachers to act as guest faculty. The pre-service program was modified so that the internship duration lasted a full school term. Student teachers were placed in schools with the greatest shortage. As part of their internship program, DIET student trainees and teacher educators, with support from NUEPA, prepared school profiles of the districts. These were then shared with the MCD so that problems could be addressed.

From this initiative, the idea of school improvement programs emerged. The idea took shape in many forms. The Directorate of Education felt that goal setting could be an important strategy and accordingly declared that the Class 10 results of the ensuing year would be at least 50% in government schools. At the time this occurred, school results hovered between 30-40%. Fresh energy flowed into the school system as each school attempted to ensure this. The Directorate also initiated school adoption by senior administrators, who regularly visited the schools, suggested strategies and supported the schools in various ways. At SCERT and DIETs, two programs evolved for school improvement. Under the twinning program, 84 private schools were twinned with their neighboring government schools with both school heads and teachers jointly declaring their determination to improve both schools. At the end of the year-long process, school results improved through a variety of initiatives by 24%. The strategies were varied and creative. For instance, private schools offered their library, laboratories and teachers to government schools; government schools enabled private schools to participate in science fairs, cultural programs, mathematics quiz and so on. Another model involved a psycho-social approach. A

group of student teachers and teacher educators selected a school and worked intensively with the school. While teacher educators provided support to the school teachers, student trainees worked with children to identify their problem, provide additional classes, and communicate children's problems to teachers and teacher educators. Although practiced only in around 20 schools, this proved to be a robust model. As the results of the government school met the target that year, the energy was palpable. The road to school improvement appeared to take on systemic roots. The DIETs focused on attempting to generate contextualized curricular materials by documenting local crafts, water bodies, flora of their districts etc.

The lessons from Jahangirpuri did not directly and linearly transfer to SCERT, rather it provided elements of possibilities. The deep engagement of NGOs and academicians at Jahangirpuri could not be replicated at the scale of the state and this was highlighted by an evaluation team at IASE. However, the strategy at state level was to influence policy and implementation under the scrutiny of the community watch groups for school education who were quick to highlight gaps in schools.

The NCF 2000 brought an extra challenge not learnt at IASE. As Director, SCERT, the memorandum states that it was my job to advise the state government on policies and programs. This mandate enabled challenging the NCF 2000 in the Supreme Court challenging NCERT and MHRD. Following this, SCERT, Delhi was, for the first time, asked to prepare all the textbooks for the elementary stage in a span of less than a year. Ordinarily, this might be impossible, but the energies released through the various initiatives had generated a groundswell of support to SCERT. More than 300 academics, NGOs, researchers, school teachers from both private and government schools, student teachers and community group members participated in this exercise, and the *Indradhanush* series of textbooks were ready in time for the academic year 2004. The books were strongly grounded in the context of Delhi, fore grounded in the milieu of the children of the government schools even while drawing on the best of research and archival materials available. By 2005, several members of

the SCERT textbook team had joined the NCERT initiative of preparing the NCF 2005, and later, the NCERT textbooks.

To challenge NCF 2000 on academic grounds might sound controversial; looking back, in fact, it was no more controversial than the intense culture of group meetings at IASE. When I was probed to justify what I wanted to do at IASE, there were many tense exchanges, tears, anger and frustration but then, as with the Supreme Court case, they were born out of deep engagement with what we stood for. True learning is never always joyful, like life, it has its shares of hopes, fears, anger, feelings of betrayal and alienation. The fact that I am writing this at the behest of MHRD and that I am still welcome at NCERT belies the common perception that if you challenge ideas of those who are in power, you are wrong to do so, or you will be punished.

The SCERT and DIETs have been assigned an incredible set of responsibilities unparalleled in the world. Briefly from recollections, they are to:

- advise state government on educational policies and programs
- qualitative improvement at all levels of education
- through DIETs, responsible for universalization of elementary education
- affiliating authority for teacher education at elementary levels for all teacher education institutions run by both private and government agencies.
- responsible for conducting entrance examinations for Diploma in Elementary and Early Childhood Care and Education for both government and private institutions, the numbers of which are higher than all students who attempt the Joint Entrance

Examination for Indian Institute of Technology (JEE-IIT).

- provide pre-service education
- provide a 3-week, in-service education to every teacher in the state/district each year
- develop quality teaching-learning materials including textbooks
- now act as academic authority under RtE
- now organize in-service and perhaps pre-service teacher education for secondary school teachers under Rashtriya Madhyamik Shiksha Abhiyan (RMSA)
- be responsible for the achievement of children at all levels
- responsible for adult literacy of state and districts
- organize EduSAT programs
- conduct National Achievement Surveys on behalf of NCERT
- compile data for MIS

Reconciling these responsibilities with the autonomous contextualized plans for DIETs and SCERTs is a tremendous challenge. Of particular relevance are the multiple organizations which add to perceived notions of whether DIETs and SCERTs have performed or not. For instance, the state has expectations from SCERT and DIETs which are not specifically part of the Teacher Education Scheme of the central government. NUEPA, NCERT, universities may have a different set of expectations from them. The most recent expectations are for SCERTs to act as academic authority and for DIETs to provide pre and in-service training for RMSA. Each of these has tremendous scope and implications for quality improvement.

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CTEs and IASEs : A journey of two decades

Abstract

This paper attempts to look back at the Centrally Sponsored Scheme for Teacher Education over two decades and points to the gaps in policy as well as the potential in scheme.

Background

The National Policy of Education 1986, is a significant landmark in the history of education of post independence India. While observing the considerable expansion of educational institutions all over the country and in the light of the new challenges of the 21st century, the policy visualized the need for radical efforts to be made for improving the quality of education. It has rightly observed that 'Education in India stands at the crossroads today. To enable the people to benefit in the new environment will require new designs of human resource development. The coming generations should have the ability to internalize new ideas constantly and creatively. All this implies better education. Nothing short of this will meet the situation.'

Recognizing the need for radical change in the entire educational system of the country, the policy not only recommended creating appropriate infrastructural facilities and allocation of required funds, it also gave a number of concrete suggestions for enhancing academic standards and strengthening different areas of education, including education of teachers. The policy observed that improvement of status and professional competence of teachers needs to be given highest priority as it is crucial for desired educational reconstruction. As a result of this, Government of India introduced a 'Centrally Sponsored Scheme' (CSS) in 1987 with the specific objective of 'Restructuring and Reorganisation of Teacher Education' in the country and through which it provided huge financial assistance to the state governments for development of infrastructural facilities and for creating academic resources required for strengthening of teacher education institutions enabling them to discharge their functions effectively in the new scenario.

Inception of CTEs and IASEs under CSS

One of the main objectives of the CSS for teacher education was to establish DIETs in each district of the country and also to upgrade selected institutions as CTEs and IASEs in every State. While DIETs were expected to take care of the quality at elementary education, CTEs and IASEs were expected to chalk out programs for enhancing quality of instruction, training of teachers, research and innovations by empowering teacher educators, teachers and heads of the institutions working in secondary and senior secondary level institutions. As a result of this, 571 DIETs, 104 CTEs and 31 IASEs came into existence. The institutions were established in phased manner.

The scheme was appreciated as an innovative model by teacher educators and by educationists.

CTEs and IASEs: Experiences of two decades

Ever since independence, almost all the policy documents have emphasized the need for a strong system of professional development of teachers and teacher educators working at different levels.

Creation and upgradation of teacher education institutions such as CTEs and IASEs in the country was indeed a unique opportunity and radical step in the direction of strengthening and building educational capacity of both institutions as well as teachers and teacher educators working in these institutions. These institutions have now completed almost two decades of their consolidation.

Some of the observations about these institutions are as follows:

- Announcement by MHRD about the upgradation of selected teacher education institutions such as CTEs and IASEs fostered

new enthusiasm in these institutions due to the association with and initiation of Government of India and also due to the provisions of strengthening these institutions by providing additional financial, infrastructural and human resource related inputs. Most of the teacher education institutions, due to weak financial positions, did not have even the basic requirements such as buildings, furniture, equipment, library resources, computers and education technology ET related gadgets and had mainly restricted their role to conducting B.Ed. and M.Ed. courses. The immediate benefit of this scheme came out in the form of creation of essential infrastructural facilities and human resources for taking off as comprehensive institutions of teacher education, expected to perform multifaced roles. The change in perception and vision of teacher educators about this wide role was another benefit and it also started influencing the institutional culture and academic atmosphere of some of these organizations. Attempts were also made to create new internal structures in the light of expected functions. Teacher educators through training programs got an opportunity to build new relationships with the teachers and principals working in schools, enabling them to develop better insight into pedagogical issues.

Apart from these gains, there are issues which hampered the growth and functioning of these institutions which are as follows:

- While implementing this scheme, necessary ground was not available, both at state and institutional level. Many of the upgraded institutions are still not very clear about their role as CTEs and IASEs. As a result of this, the only change visible in most of them is that now they have better infrastructure and facilities. However, a good number of upgraded institutions started realizing that to develop as a professional institution of teacher education they need to redesign and rethink their new role.
- Secondly, as the scheme was implemented through state governments, a number of modifications were made at state level, which affected the process of growth and functioning of these institutions. For example, the states decided who became a CTE and who became an IASE as well as the training schedule.
- Very few upgraded institutions took shape as a complete upgraded unit as expected in the guidelines of CSS. So much so that two separate, water-tight departments were functioning within the CTE/IASE, one only concerned with M.Ed., B.Ed. programs and the other with the in-service program as required under CSS.
- Another major lacuna at the implementation level has been that the heads and teacher educators of CTEs/IASEs hardly had any orientation about their new role. As a result of this, the academic and managerial metamorphosis which was needed inside these institutions never happened. Most of these institutions lacked the appropriate internal organization and management processes. The design, content and transactional strategies adopted in training programs were not very much different than that of a traditional training institute. The purpose of research was not very clear and extension and lab-area activities were not even started barring a few exceptions. Initiatives taken by NIEPA and NCTE in the form of discussion and orientation meets of the faculty of IASE/CTE were good but inadequate.
- The mechanism of monitoring of the activities of these institutions was also not strong. Although, there was a provision of a Programme Advisory Committee (PAC) for each CTE and IASE, mostly meetings of PAC were being held only once in the beginning of the session, discussing mainly routine matters.
- In the absence of a suitable strong nodal agency in the states, issues related to coordination/autonomy/quality were not properly addressed and ensured. Agencies such as 'State Boards of Teacher Education' could do this job more effectively.
- For successful implementation of this scheme there is an urgent need for professional development and academic empowerment of

the faculty at IASE/CTE. For this, selected IASE/CTEs could have been further upgraded as 'Academic Staff Colleges' in the area of teacher education. This is even more important in the light of the huge number of new B.Ed. colleges that have come into existence during the past few ten years and the functioning with fresh faculty having very little experience. The orientation and training of secondary level teacher educators is also important for realising the goals of RMSA; and IASEs and CTEs will be required to make necessary preparations in this area also.

- Since the recurring grants for salary, training

programs and research activities were rooted through the State Department of Education, it was either delayed or distributed irregularly. This had adverse effects on the training programs, research related activities and other responsibilities.

- The pre-service teacher education programs like B.Ed., M.Ed. etc, remained unaffected in most of the cases and continue to operate on traditional lines due to the absence of synergy required in internal functioning.

The scheme is no doubt good but needs to be relooked and redesigned in the light of new expectations.

State curricular reforms and professional development of teachers and teacher educators in Andhra Pradesh

Abstract

This paper focuses on the development of the curriculum framework in Andhra Pradesh. Drawing on the extensive learning from the basic education initiatives over two decades, the major changes in the new framework include school development plans, teacher training programs, teaching materials and curriculum development that reflect the National Curriculum Framework and are also organic to the state.

Introduction

The National Curriculum Framework (NCF) 2005 is the document that recommends curricular guidelines for centrally run and state schools systems. States however, are expected to prepare their own state curricular frame works. The experience of the earlier NCF 2000 indicated that very few states attempted to create curricular frameworks. There were several reasons why Andhra Pradesh decided to prepare its own framework in 2011.

Firstly, many policy changes have been taken place after NCF 2005. RtE 2009, NCFTE 2010, National Knowledge Commission, 11th and 12th Five-Year Plan formulations are documents that have provided thrust to improve access to quality elementary education. There was need to examine their implications for states.

Secondly, there has been a long-standing process of capacity building of Andhra Pradesh state resource groups in various aspects of curriculum over the last two decades under the basic education programs. Some of these programs are- Andhra Pradesh Primary Education Project (APPEP), District Primary Education Program (DPEP), Sarva Shiksha Abhiyan (SSA) in collaboration with Vidya Bhawan Society, Delhi University and Institute of Education, London. Agencies such as Educational Consultants of India Limited (Ed.CIL), NCERT, Eklavya, Homi Bhabha Center for Science Education (HBCSE), Mamidipudi Venkatarangaiah Foundation, Jana Vignana Vedika, Save Education, Plan International, America India Foundation, Aga Khan Education

India have also provided support. An understanding has developed among the state and district resource groups on the child, nature of the child, learning, subject-based approaches, and teaching-learning processes, teacher-pupil relationships and so on.

The resource groups in the state deliberated on the NCF 2005 including the position papers and felt that the state required a curriculum framework that could address perceived gaps in policy and bring in a local approach based on our experiences and knowledge gained during the implementation of basic education programs.

Revisions of textbooks undertaken by Andhra Pradesh based on NCF 2005 for classes 1 to 6 in 2007 revealed that they did not reflect the spirit and approaches of NCF 2005 mainly because the curricular renewal process was understood in a limited sense of revision of the syllabus and textbooks. These did not reflect core issues that needed to be addressed to transform school education in a holistic sense. In certain areas of curriculum, the syllabus of NCERT was adopted in its entirety and thus lost the local context in terms of culture, economic practices etc. It was also felt that there was need to institutionalize good practices and pedagogical reforms gained through the implementation of DPEP and SSA.

More importantly, RtE mandates specific curricular and evaluation reforms which need to be reflected in the classroom process. That would be possible only if they were an integral part of curriculum and textbook reforms. Therefore,

thorough discussion on state specific concerns, systemic issues of implementation of curriculum, a state-specific curriculum framework along with position papers on all the areas that would impact children's education emerged.

Eighteen focus groups were constituted with a chairperson from reputed institutions from the state and an expert at the national level. The government constituted an advisory and a steering committee to guide and finalize the state curricular reforms. After examining the NCF position papers, certain modifications in the title and nature of position papers pertaining to few areas were made. The State Curriculum Framework (SCF) focused on not only on critical aspects of various issues but also focused on the implementation part. Primary focus was laid on aspects that led to active interactions of the child.

State Curriculum Framework (SCF) process

Initially the discussions were held within the focus groups with representatives from teachers, teacher educators, NGOs and educational managers followed by small group meetings that developed the first drafts. The drafts were further developed with the help of steering committee members and placed in the Andhra Pradesh SCERT (www.apscert.org) web site inviting suggestions from the public. Regional conferences followed by district level conferences in DIETs are also being organized for feedback. The steering committee will later review the suggestions and comments received and finalize the SCF and position papers and place them before the advisory committee for approval.

Section 29 (2) of RtE, came in for special discussion as it mandates teaching-learning processes that reflect activities, discovery and exploration in a child friendly and child-centred manner. The textbooks will also need to be in consonance with academic standards laid down across the subjects and grades. Further, procedures for the implementation of continuous comprehensive evaluation needed to be worked out. Section 29 (2) emphasizes that the curriculum and evaluation procedures must focus on the areas related to conformity with the values enshrined in the Indian Constitution, development of the whole child, building up child's knowledge, potentiality and talent,

development of physical and mental abilities to the fullest extent, learning through activities, discovery and exploration in a child friendly and child-centered manner, the medium of instruction shall, as far as possible, be in child's mother tongue, and making the child free of fear, trauma and anxiety and helping the child to express views freely. The school timings, infrastructure, working days, teacher provision, teacher preparation etc. have been discussed as a part of systemic reforms and pledged to provide enabling conditions for effective implementation of curriculum. It was also proposed for certain regulatory mechanisms in terms of their institutional timings, working days, curriculum load, fee structure, stress on children, implementation of creative subject areas. The decentralization in management of school education through involvement parents and panchayati raj institutions (PRIs) as per the 73rd constitution amendment.

These have to be integrated with the NCF 2005 where assumptions about working with children, teachers, community, parents, learning processes, knowledge, sources of knowledge, child centered pedagogy and children's learning, constructivism have been described and ways and means suggested to improve the curriculum and textbooks.

Uniqueness of the process

The process in Andhra Pradesh was characterized by involvement of personnel at various levels in the process of curricular reforms. These included teachers, state resource group members, representatives of local culture, artisans; involvement of DIETs in awareness building and consultative processes at district levels; resource support of national level pace-setting institutions and NGOs.

The proposed continuous comprehensive evaluation is formative in nature focusing on assessment for learning and assessment as learning. The quality of learning in terms of expected subject specific competencies is emphasized instead of marks or grades. Appropriate weightage is being provided to the creative areas like Art and Craft Education, Works Experience, Health and Physical Education, Ethics and Values. These are now viewed as part

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of the curriculum and not co-curricular areas. Source books are being developed subject-wise discussing the nature of learning, nature of subject, what to assess in the subject i.e., knowledge skills, attitudes, values etc. and how to assess both in qualitative and quantitative terms. Every care is being taken up to reduce the number of recording formats. The final progress sheet reflects a comprehensive profile of the developing child. The tools for assessment include observations, portfolios, children's note books, subject specific project works, presentations etc.

Performance indicators for children include learning indicators in various subject areas reflecting the nature of the subject. Performance indicators for teachers, teaching learning

processes have also been evolved. The core learning indicators in each subject includes conceptual understanding, application, skills, abilities and attitudes. The learning indicators are not linear but holistic in nature. The indicators are stage specific i.e., Level I includes class 1 and 2; Level II : classes 3, 4 and 5; Level III : classes 6, 7 and 8; Level IV : classes 9 and 10.

The issue of discipline is being discussed to remove corporal punishment and plans for strategies that introduce positive discipline in schools have emerged. The focus is on teacher-student relationships with an understanding of children's background. The work of NGOs has greatly informed this initiative.

The SCF that has emerged is distinct from NCF 2005 in the following ways:

NCF Position Papers	SCF Position Papers
There was one position paper on Indian languages	Separate position papers for Indian languages like Telugu, Hindi, Urdu with appropriate representations
Peace Education	Focus on constitutional values and Rights-based approach
Position paper on Examination Reforms	Assessment for learning and assessment as learning ; formative continuous and comprehensive evaluation
Diversities- SC, ST, children with special needs (CWSN) and girls	Diversities - SC, ST, children with special needs, minorities and girls are represented as a part of SCF.

The state has developed academic standards which are subject specific and grade specific. The standards are bench marks in terms of expected learning outcomes, teaching-learning processes, teaching-learning material, teacher preparation and performance.

Proposed action points for finalizing the state curricular reforms

As a part of State Curriculum and Evaluation reforms varied activities are being taken up for teacher and support orientations for effective implementation of RtE. The proposed plan for finalizing the reforms includes beginning with a meeting of the steering committee that will involve chairpersons of the position papers to discuss the draft position papers and state curriculum framework. The goal of this meeting

is to finalize the state curriculum framework, position papers, syllabus and academic standards. Further, these will be publicized and orientation programs will be conducted for teacher educators, teachers, field functionaries, NGOs and other resource personnel. Another aspect of this will involve the development of textbooks and other learning materials, teacher handbooks based on the revised syllabus and textbooks. Orientation will be provided to the teachers on the revised syllabus, new textbooks and academic standards. The implementation of the curriculum will be monitored and periodic evaluation of curriculum will be implementation.

Material development will also be a focus. The goal is to develop specially designed age appropriate learning material including bridge

course materials for the dropout/never enrolled; children enrolled in the age specific grades. Orientation will be organized for teachers through developing district resource groups (DRGs). A focus will also be on the development of the framework and guidelines for the implementation of continuous and comprehensive evaluation. Cumulative record for every child will be the basis for the awarding completion certificate, and the target will be on the development of grade specific and subject specific competencies. Specific guidelines on the ban on corporal punishment and implementation of positive discipline will be developed.

A part of the work will also include preparation of a school development plan and guidelines for its implementation. Early childhood education (ECE) curriculum and guidelines for effective implementation of early childhood (pre-school) education will be developed. Standards for professional practice and teacher preparation (Academic Standards) will be developed. Performance indicators for institutions will be a step towards accountability for children's performance (Result Framework Documentation). A huge task also includes the designing and development of quality monitoring tools and guidelines for RtE implementations. Lastly, focus will be on another key critical component- development of in-service teacher training design. These will include and appropriate training strategies and capacity building of resource persons.

Reflections on professional development of teacher educators in Andhra Pradesh

The SCF process has been built on the long term professional development of teachers and teacher educators that have been taken up as a part of several basic education programs implemented in the state viz., APPEB implemented during 1990-1995 and DPEP implemented in the state during 1996-2004 and SSA being implemented in the state during 2004-2005 until now.

The major objective of APPEB was to improve the quality of primary education through capacity building of teachers and teacher educators. A series of workshops and training programs have been conducted through active involvement of DIETs for the professional development of teachers and field functionaries. The teacher

educators from DIETs and SCERT staff have been deputed to University of London Institute of Education (ULIE) for a period of three months to undergo orientation and visit the schools. An eighteen day orientation program was organized for teachers and teacher educators of DIETs under SCERT and APPEP State Project Office with the professors of ULIE. The concept of teacher centers (CRCs) has been introduced for the first time to provide a platform for professional exchange among the teachers at cluster level.

Under DPEP, well organized capacity building programs have been planned and organized with the involvement of national level institutions i.e., Delhi Universities, Vidya Bhawan Society, DPEP Kerala, Ed.CIL, New Delhi, Department of International Development (DFID). Strong state resource groups (SRGs) have been developed. The deliberations are focused on basic assumptions about child, learning, subject nature, community role and participation, teaching learning processes, material development and so on. The cluster resource centres established under APPEB have been strengthened with establishment of BRCs and training a cadre of BRC resource persons. The DPEP resulted in several learning goals for the participants. Teachers and teacher educators understood that children are endowed with certain innate potentialities and not tabula rasa (clean slate). They learned that learning takes place through meaningful interactions and participation. They understood that while the orientations and trainings are theory oriented and textbook oriented, practice can take many forms. For true teaching to take place, active involvement and participation of children is essential and this can be provided through experiential learning during the trainings and hands on experience with material development. This activity oriented and child centered pedagogy had been introduced during APPEP and teachers internalized the scope of its application during DPEP. The capacity building of teachers and field staff encompassed areas that focused on child development. These included learning about the innate abilities of the child, natural learning experiences, profile of learning activities, nature as a subject area, nature of the child, nature of learning, student assessment process, out of school children, child

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labour and child rights. It also included an overview of alternative forms of education and pedagogy, developing community participation, learning to teach with interactive materials and making of teacher generated question papers.

Under SSA, the trainings and capacity building programs are program based i.e., Children Language Improvement Program (CLIP), Children Language Accelerating Program for Sustainability (CLAPS), Learning Enrichment Program (LEP) and goal oriented. Strong state and district resource groups have been constituted and developed. The program moved from institutions to resource groups. The academic role moved from SCERT, DIETs to the State Project Office which emerged as an academic hub. The major lessons learnt from SSA are as follows:

- Program based support and teachers and teacher educator involvement in trainings, workshops leads to professional learning and academic development.
- Undertaking research projects and program evaluation are rich sources of professional input to the teacher educators of DIETs, SCERT and State Project Office.
- Autonomy to DIETs for conceptualizing quality program, planning and implementation led to capacity building of teacher educators.
- Setting performance indicators and reviews of schools performance at block, district and state level made system transparent and developed academic culture of institutions.
- Book reviews, regular academic writing, sharing innovations, pedagogies at CRC meetings leads to teachers' professional development.
- The system identified the importance of reading and the importance of children's literature as a strategy for improving the literacy skills among children. The nature of knowledge developed among teachers and teacher educators have been developed through reading books, training programs, etc., but not generated through reflective practice and research. The exposure, reflections and learning as a part of the project improved the capacity building of the staff

and helped them in undertaking appropriate curricula reforms and systemic reforms.

- The CRC meetings began with a review of children's performance and attendance across participating schools. This also included development of lesson plans and TLM for the forth coming units. Demonstration lessons were an integral part of the program. Discussions on contemporary educational themes, book reviews, planning for next meeting, and documentation of the proceedings.

In retrospect, the SSA programs also reflect more centralization at State Project Office rather than conceptualization and implementation in a decentralized way at the district and sub district level. Ownership on the improvement of quality at elementary level among professional institutes/ resource centres like DIETs, BRCs and CRCs was missing. There is not much networking at the expected levels between DIETs, CRCs and BRCs and other related institutions i.e., SCERTs, CTEs and IASEs. The higher learning institutions i.e., CTEs and IASEs and universities are not actively involved and there is a gap between quality initiatives and teachers institutions. Trainings become diluted in certain places because of lack of strong resource persons. However, the subject forums constituted at state and district level have not been institutionalized and strengthened on a regular basis. The innovative programs such as wall magazine, children's diary, children's clubs etc., have not been understood and the educators felt that these were peripheral activities that did not support children's learning. Researches on the areas were undertaken that focused on management and assessment issues. Specifically, some of the topics included managing time on task, external evaluation of various interventions under SSA, children's learning achievement (external evaluation), impact of distance education programs, a study on children's literature and its impact, and a study on teacher absenteeism.

The SSA experience also indicated some systemic issues. The School Education Department was under two ministers and two principal secretaries, but one director of school education. Decentralization, thus, was at the higher rather than lower levels. Service matters

were under one minister and secretary and SSA was under another minister and secretary. This led to coordination issues between departments and SSA. The district level project officers were from departments other than education, for example, Revenue, Co-operative, Animal Husbandry, Ground Water, Treasuries and Accounts etc. They often lacked the focus and concern for education.

Learning from basic education University of London Institute of education (ULIE) process

The learning process was characterized by a collaborative effort. The notion of training and capacity building changed from listening to an expert hours together in lecture mode to working in groups on a particular task in collaboration with resource persons as the facilitators. The library was used as a major reference resource for the given tasks and also for collecting some of the useful material and articles. Pre-training course materials were introduced so that the participants could come prepared to learn and ask questions. The capacity building workshop that lasted for 18 days, focused on development of content areas. It introduced teacher educators to the themes that included introduction to six pedagogical principles, language teaching and activities (one unit with examples and activities), Math, EVS 1 and EVS 2, demonstration lessons, development of lesson plans by each individual and practice in the schools being observed by the other participants and trainer. The last module was the course end evaluation.

1 The process was initiated by Mr. Md. Ali Rufath, State Project Director and Director, SCERT with approval of Mrs. Chandana Khan, Principal Secretary, School Education. Mrs. Seshu Kumari, the present Director, SCERT has taken in forward. The SCERT, A.P. has initiated the entire process of curricular reforms through the Department of Curriculum, Textbooks and Pupil Assessment. The curriculum support group members include –

Dr. N. Upendar Reddy, Professor and Head, C&T department, Dr. V. Sudhakar, Professor, EFLU, Hyderabad, Mr. S. Vinayak, SRG & Coordinator, Dr. Shankar, Lecturer., DIET, Dr. TVS. Ramesh, SRG, Mr. Ramesh Rao, SRG and Mr. K. Rajender Reddy, SRG. The process was closely guided by the Prof. Ramakant

Agnihotri, Dr. H.K. Dewan, Mr. Kamal Mahendroo of Vidya Bhawan Society and Mr. CN. Subramanyam of Eklavya.

2 The steering committee headed by Dr. PM. Bharghava, Ex Director, Cellular and Molecular Biology and Former Member of National Knowledge Commission. Prof. Haragopal, University of Hyderabad and ex-officio Vice-Chairman, Human Rights Cell. All the chairpersons of the position papers are members of the steering committee. The members include –

Prof. Haragopal, HCU, Chairman

Dr. H.K. Dewan, Vidya Bhawan Society, Udaipur.

Prof. V. Sudhakar, English & Foreign Languages University Hyderabad.

Prof. Ramakant Agnihotri, Delhi University, New Delhi.

Dr. Arvind Sardana, Eklavya, Hoshangabad, Madhya Pradesh.

Dr. Anandan, SSA, Kerala

Dr. Kamal Mahendro, Science Expert, Vidya Bhawan Society, Udaipur

Prof. Krishnam Rajulu Naidu, Osmania University
Gurveen Kaur, Director, Centre for Learning, Secunderabad.

Dr. A.K. Singh, Chief Pedagogy Consultant, Ed.CIL, New Delhi.

Alex George, Eklavya, Madhya Pradesh

Jyothstna Vijapurkar, Homi Bhabha Science Centre, Mumbai

Gopal Reddy, Principal, IASE, Hyderabad

Sri. Reddy Prakash, Secretary (Retd.), APREIS

Liyakath Ali, DIET, Mahaboobnagar.

Thaqui Hyder, DIET, Vikarabad, A.P.

Dr. C.N. Subramanyam, Director, Eklavya.

Dr. Poranki Dhakshina Murthy, Linguist and Rtd. J.D., Telugu Academy, Hyderabad.

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Dr. P. Shankar, Lecturer, DIET, Warangal.

Mr. K. Rajender Reddy, State Resource Group.

Mr. TVS. Ramesh, State Resource Group

Mr. KKV. Rayalu, Lecturer, SCERT.

छत्तीसगढ़ राज्य में नवीन डी.एड. पाठ्यचर्या निर्माण

छत्तीसगढ़ में शिक्षक-शिक्षा हेतु पाठ्यचर्या निर्माण का कार्य पाठ्यपुस्तक लेखन के साथ ही शुरू हो गया था। तत्कालीन शिक्षा सचिव व राज्य शैक्षिक अनुसंधान व प्रशिक्षण परिषद् (एस.सी.ई.आर.टी.) के संचालक महोदय, दोनों का मानना था कि जिस दृष्टि व परिप्रेक्ष्य को ध्यान में रखकर पाठ्यपुस्तकें बनाई जा रही हैं उसी परिप्रेक्ष्य को ध्यान में रखते हुए शिक्षक-शिक्षा के पाठ्यचर्या में भी बदलाव किये जायें 2003-04 में शिक्षक-शिक्षा की पाठ्यचर्या पर कार्य शुरू हुआ व लगभग एक वर्ष के समय में पाठ्यचर्या की रूपरेखा का प्रथम प्रारूप तैयार किया गया।

इस प्रारूप को तैयार करने में एस.सी.ई.आर.टी. के साथ-साथ अन्य संस्थाओं दिगन्तर, विद्या भवन व एकलव्य का भी सहयोग मिला। अब समय था पाठ्यचर्या व विभिन्न विषयों की सामग्री निर्माण का। लेकिन इसी बीच एस.सी.ई.आर.टी. व शिक्षा विभाग के प्रबंधन में कुछ फेर-बदल हुए। शिक्षा सचिव भी नए नियुक्त हुए व संचालक भी। और इसी से यह काम रुक गया। यद्यपि पाठ्यपुस्तक बनाने का कार्य चलता रहा।

इसके पश्चात् वर्ष 2007 में पुनः डी.एड. पाठ्यचर्या निर्माण का कार्य एस.सी.ई.आर.टी. में शुरू किया गया। इन तीन-चार सालों के दौरान पाठ्यपुस्तकों पर कार्य करते हुए, उनकी ट्रायलिंग व कक्षा-कक्ष अवलोकन करते हुए समूह को यह अनुभव भी हो गया था कि शिक्षकों को न केवल पाठ्यपुस्तकों की विषय-वस्तु को पढ़ाने में कठिनाई आ रही है वरन् उनकी शिक्षा की समझ भी परिपूर्ण नहीं है। एस.सी.ई.आर.टी., डाइट के संकाय सदस्यों व अन्य सहयोगी संस्थाओं दिगन्तर, एकलव्य, विद्या भवन, आई.सी.आई.सी.आई., अजीम प्रेमजी फाउंडेशन इत्यादि के प्रतिनिधियों के साथ हुई एक कार्यशाला में यह पाठ्यचर्या व विषय-वस्तु निर्माण का कार्य शुरू हुआ।

यही नहीं जब प्रचलित पाठ्यचर्या की समीक्षा की गई तो उसमें भी कुछ इस तरह की बातें समझ में आईं-

- विभिन्न विषयों में कोई मेल (link) नहीं था। और न ही विषय कक्षा-कक्ष व शाला की वास्तविक व व्यावहारिक परिस्थितियों को समझने में व उनसे जूझने में मदद करते थे।

- विषय-वस्तुओं में शिक्षा की एक परिपूर्ण समझ का अभाव था। परिपूर्ण यानी शिक्षा क्यों जरूरी है? शिक्षा व समाज का क्या रिश्ता है? शाला का समाज से क्या रिश्ता है? विभिन्न विषयों को क्यों पढ़ाएँ? विषयों को पढ़ाने के तरीके का बच्चों की प्रकृति व क्षमता से क्या संबंध है? शिक्षक की भूमिका कैसी हो इसका विषय की समझ व सीखने की समझ से संबंध इत्यादि।
- प्रचलित पाठ्यचर्या शिक्षक को नया सोचने, नई प्रक्रियाओं को परखने व उन पर सवाल उठाने के लिए तैयार नहीं करता। न ही यह शिक्षक को अध्ययन अध्यापन के प्रति रुझान उत्पन्न करने की परिस्थितियाँ निर्मित करता है।
- यह भी समझ आया कि प्रचलित शाला अनुभव कार्यक्रम व सैद्धांतिक विषयों में कोई ताल-मेल नहीं है।
- तय किया गया कि नयी पाठ्यचर्या इन बिन्दुओं को ध्यान में रखते हुए बनायी जाए जो शिक्षक को एक स्वतंत्र विचारशील व्यक्ति समझते हुए उसे बच्चों को, उनके सीखने की प्रक्रिया को, समाज को, शिक्षा की मूलभूत अवधारणाओं, विषय-वस्तु की मूलभूत अवधारणाओं को समझने व उन पर सवाल भी उठाने में मदद करे।



सर्वप्रथम पाठ्यचर्या निर्माण के लिए कार्य योजना बनाई गई। यह तय किया गया कि शुरुआत शाला अनुभव कार्यक्रम में बदलाव से की जाय इससे हमें सैद्धान्तिक विषयों की तैयारी के लिए भी पर्याप्त समय मिल जाएगा। शाला अनुभव कार्यक्रम के मुख्य उद्देश्य थे—

- छात्राध्यापकों को शाला के साथ कार्य करके उसके विभिन्न पहलुओं जैसे स्कूल की पाठ्यचर्या जिसमें विषयों के अतिरिक्त स्कूल में होने वाली विभिन्न गतिविधियाँ यथा सुबह की सभा, खेल, दोपहर का भोजन आदि को समझना। इनमें इस प्रकार सम्मिलित होना जैसे वह भी शिक्षक हों। उनका लक्ष्य कक्षा-कक्ष प्रक्रियाओं, बच्चे शिक्षक की भूमिका को, स्कूल की विभिन्न व्यवस्थाओं को समझना है।
- छात्राध्यापकों को उनके द्वारा किये गये शिक्षण कार्य पर विवेचना करने का अवसर मिले। अपने साथियों के साथ उस पर चर्चा करने के साथ-साथ, साथियों को अपने विचारों से अवगत कराने व उनके विचारों से स्वयं अवगत होने का अवसर मिले।
- छात्राध्यापकों को बच्चों के साथ कार्य करने का अधिकाधिक समय मिले। जिससे उन्हें बच्चों को समझने व विषय-वस्तु को समझने में मदद मिले व साथ ही सीखने-सिखाने की प्रक्रियाओं में आत्मविश्वास विकसित हो।

इस हेतु 80 दिवस का कार्यक्रम तैयार किया गया जिसमें निम्न गतिविधियाँ प्रमुख थीं—

- 10 दिन तक शालाओं का अवलोकन
- अवलोकन के पश्चात् 20 दिन तक तैयारी का समय
- फिर 50 दिन शिक्षण का कार्य दो चरणों में। दूसरे चरण में अपने कार्य का स्व-आंकलन

एक महत्त्वपूर्ण परिवर्तन यह भी था कि शिक्षण कार्य के लिए छात्राध्यापकों को प्रतिदिन की पाठयोजना न बनाकर एक समय शिक्षण योजना बनानी थी। कई संकाय सदस्यों का मानना था कि पाठ योजना के बगैर शिक्षण कार्य हो ही नहीं सकता। यदि पाठ योजना नहीं होगी तो मूल्यांकन कैसे किया जाएगा?

इस पर चर्चा हुई कि पाठ योजना की क्या-क्या सीमाएँ हैं? यह छात्राध्यापकों को सोचने का खुला फ्रेमवर्क नहीं देती है। और कक्षा-कक्ष में होने वाली गतिविधियों का एक पूर्व निर्धारित, कड़ा तरीका नहीं

हो सकता क्योंकि यह एक इंसानी संवाद की प्रक्रिया है और हर इंसान स्वतंत्र विचार करने की क्षमता रखता है। यह ज़रूर हो सकता है कि हम अपने विस्तृत उद्देश्यों को ध्यान में रखते हुए कक्षा-कक्ष की प्रक्रियाओं के बारे में सोचें। दूसरा मुद्दा मूल्यांकन का था। पाठ योजना में मूल्यांकन थोड़ा आसान है लेकिन समग्र शिक्षण योजना में यह आवश्यक है कि निर्धारित दिनों पर छात्रों की कक्षाओं का अवलोकन संकाय सदस्यों व शिक्षकों द्वारा किया जाय व उनकी शिक्षण योजना में जो कठिनाइयाँ आ रही हैं उनको जूझने में उनकी मदद की जाय। इसके लिए हम सबकी तैयारी की भी ज़रूरत है क्योंकि इस तरह से मूल्यांकन यह अपेक्षा करता है कि मूल्यांकन करने वाले की भी शिक्षा के विभिन्न पहलुओं, विषयों के बारे में कुछ पुख्ता समझ हो।

दूसरा महत्त्वपूर्ण पहलू मूल्यांकन के बारे में यह था कि मूल्यांकन सिर्फ़ डाइट संकाय सदस्यों द्वारा ही न हो बल्कि उसमें शाला के प्रधानाध्यापक की, शिक्षक की व छात्राध्यापक के साथी भी हों।

शाला अनुभव कार्यक्रम डाइट प्राचार्यों के साथ मिलकर एक आपसी समझौता के तहत चलाया जा रहा था। इसके लिए कोई औपचारिक आदेश जारी नहीं किए गए थे। इसलिए कई प्राचार्यों ने इसे अपनी संस्थान में नहीं लागू किया तो कुछ ने इस तरफ़ ज़्यादा ध्यान नहीं दिया। परन्तु फिर भी जिन संस्थानों में यह चला वहाँ आने वाली कठिनाइयों से पता चल रहा था कि कहाँ-कहाँ स्पष्टता की आवश्यकता है और कुछ प्रपत्रों में संशोधन की आवश्यकता है। प्राप्त फीडबैक की सहायता से संशोधन कर औपचारिक रूप से सम्पूर्ण राज्य में लागू किया गया परन्तु आज भी लगता है कि इस कार्यक्रम में और काम किया जाना चाहिए विशेषकर कार्यक्रम के द्वितीय चरण में छात्राध्यापक 50 दिनों के लिए अभ्यास शाला में जाते हैं, यहाँ डाइट से दूर रहने की अवधि काफी ज़्यादा हो जाती है। अतः इसे कुछ खण्डों में तोड़ा जाना होगा।

सम्पूर्ण कार्यक्रम को बनाने से लेकर लागू करने तक एकलव्य, विद्याभवन उदयपुर, दिगन्तर जयपुर, ए.पी.एफ. आई.सी.आई.सी.आई. फाउण्डेशन की भूमिका अत्यन्त महत्त्वपूर्ण थी। उन्होंने हमेशा आगे बढ़कर मदद की। इस सम्पूर्ण प्रक्रिया में हमने यह सीखा कि एक अच्छा कार्यक्रम तैयार करना ही पर्याप्त नहीं है बल्कि कार्यक्रम लागू करने वाली संस्थाओं के साथ निरंतर जुड़े रहना एवं स्थानीय कठिनाइयों के निराकरण हेतु संयुक्त प्रयास करना एवं हमेशा मनोबल ऊँचा रखना ज़रूरी है।

इसके बाद कार्य शुरू हुआ सैद्धान्तिक विषयों को लेकर। प्रथम वर्ष में कुल छह विषय थे व छह द्वितीय वर्ष में। यह बारह विषय होना क्यों ज़रूरी है? इस पर विस्तृत चर्चाएँ हुईं? और साथ ही यह भी इन विषयों की विषय-वस्तु क्या होगी? परिप्रेक्ष्य वही जिसकी इस लेख की शुरुआत में हमने चर्चा की है। समूहवार विषयों की जिम्मेदारी दी गई। प्रत्येक समूह में एस.सी.ई.आर. टी. सदस्य, डाइट संकाय सदस्य, सहयोगी संस्थाओं के प्रतिनिधि सम्मिलित थे।

प्रत्येक विषय की समग्री चुनाव के कुछ सिद्धान्त हमने रखे जो इस प्रकार हैं—

- सामग्री स्पष्ट व सरल शब्दों में हो ताकि छात्राध्यापक स्वयं पढ़कर समझ सकें।
- सामग्री में कक्षा-कक्ष व स्कूल के व्यावहारिक पहलुओं के बारे में भी बात हो यानी सामग्री व शाला अनुभव कार्यक्रम में एक जुड़ाव हो।

बहुत लम्बे-लम्बे पैराग्राफ न हों। बीच-बीच में कुछ गतिवधियाँ व प्रश्न हों जो छात्राध्यापकों को सामग्री को समझने में मदद करे साथ ही उनमें चिंतन की प्रक्रिया भी शुरू करे।

कुछ समझ तो सामग्री निर्माण के दौरान बनी व समझ को पुख्ता करने के लिए व विस्तृत करने के लिए सभी विषयों पर डाइट संकाय सदस्यों के साथ कार्यशालाएँ भी आयोजित की गईं। लेकिन जो उत्साह, जोश सामग्री निर्माण के समय था वह कार्यशालाओं के दौरान नहीं दिखा। ऐसा महसूस हुआ कि पाठ्यचर्या बनाना तो कठिन कार्य है लेकिन उसको लागू करना और भी कठिन है। कार्यशालाओं में एक प्रमुख समस्या थी नई चीज़ को सीखने की ललक का कम होना व दूसरी डाइट संकाय सदस्यों पर विभिन्न कार्यों की जिम्मेदारी। दूसरा उपयुक्त योजना का अभाव। उदाहरण के लिए कार्यों के चलते कई बार वे सदस्य कार्यशाला में आते जिन्हें वह विषय पढ़ाना ही नहीं होता। न ही वे जाकर उस कार्यशाला के बारे में अन्य लोगों से चर्चा करते। कई बार ऐसे सदस्य भी कार्यशाला में आते जिन्होंने प्रशिक्षण तो प्राप्त किया लेकिन कक्षा में कभी पढ़ाया नहीं।

लेकिन डाइट विजिट के दौरान छात्राध्यापकों के साथ हुए अनुभवों ने हमारे उत्साह को बढ़ाया। अधिकांश छात्रों ने पाठ्यचर्या को स्वयं पढ़ने का प्रयास किया व उसे समझा भी। बात-चीत के दौरान उन्होंने कई प्रश्न ऐसे उठाए जिसने हमें कुछ मुद्दों पर सोचने को मजबूर किया व कई ऐसे उदाहरण भी बताए जिससे हमें लगा कि उनमें सोचने की प्रक्रिया की शुरुआत हुई है कुछ सवाल व विचार निम्न हैं—

- बच्चों की भाषा सीखने-सिखाने की शुरुआत मातृभाषा से होनी चाहिये। क्योंकि यह सिर्फ भाषा सीखने का सवाल ही नहीं है यह बच्चों की अस्मिता व उनकी संस्कृति से भी जुड़ा है।
- बच्चे स्वयं सीखना चाहते हैं। अध्यापक को उनकी सीखने में मदद करनी चाहिये।
- विभिन्न विषयों में संबंधित है। कला में जब हम विभिन्न आकृतियाँ बनाते हैं तो उनमें कई तरह के पैटर्न देखने को मिलते हैं। और पैटर्न को समझना गणित में भी महत्वपूर्ण है।

इसी तरह सवाल थे—

- शाला में क्यों पर्याप्त सामग्री उपलब्ध नहीं हो पाती है?
- क्या सिर्फ अच्छी पाठ्यसामग्री ही अच्छी शिक्षा के लिए काफी है अथवा इसके लिए कुछ और व्यवस्थाएँ भी करनी होंगी?
- शाला में बच्चों को भेजने व पढ़ाने को लेकर माता-पिता की क्या जिम्मेदारी हो? इत्यादि।

लगा कि एक शुरुआत हुई है। कुछ संवाद शुरू हुआ है लेकिन इस संवाद की निरंतरता बनाये रखने के लिए हमें कई प्रयास करने होंगे जैसे डाइट व एस.सी.ई.आर.टी. के बीच समय-समय पर पाठ्यचर्या से संबंधित मुद्दों पर चर्चा। एस.सी.ई.आर.टी. व डाइट द्वारा छात्राध्यापकों के साथ सामग्री पर कार्य व उसे निरंतर संशोधित करना, उसमें नई चर्चाओं को सम्मिलित करना क्योंकि पाठ्यचर्या विषय ही एक तरह का संवाद है। अतः यह कायम रहना चाहिये।

छत्तीसगढ़ में पाठ्यपुस्तकों के लेखन का दौर

वर्ष 2000 के पूर्व मध्यप्रदेश भारत का क्षेत्रफल के आधार पर सबसे बड़ा प्रदेश था जिसमें मालवा, निमाड, बुन्देलखंड, महाकौषल, मध्यभारत एवं छत्तीसगढ़ अंचल सम्मिलित थे। छत्तीसगढ़ क्षेत्र की आदिवासी बहुल जनसंख्या होने के साथ-साथ यहाँ की संस्कृति एवं परम्पराएँ अन्य क्षेत्रों से बहुत भिन्न थीं। प्रायः यह क्षेत्र वन संपदा और खनिज संसाधनों से भरपूर रहा है चाहे बस्तर एवं सरगुजा का वनांचल क्षेत्र हो या फिर विकसित क्षेत्र रायपुर दुर्ग-भिलाई या बिलासपुर। अविभाजित मध्यप्रदेश में इन क्षेत्रों को वांछित महत्त्व नहीं मिला। शिक्षा के क्षेत्र में भी छत्तीसगढ़ पिछड़ा हुआ रहा।

शहरी क्षेत्रों में शिक्षा का क्षेत्र कुछ हद तक पालकों की जागरूकता के कारण अच्छा रहा, किन्तु ग्रामीण क्षेत्र शिक्षा से वंचित ही रहे हैं। छत्तीसगढ़ राज्य का उदय हुआ लोगों की नई-नई कल्पनाएँ अपेक्षाएँ उजागर होने लगीं।

मध्यप्रदेश के समय की पाठ्यपुस्तकें छत्तीसगढ़ के परिपेक्ष में खरी नहीं उतर रहीं थीं। अतः नई-नई बनी एस.सी.ई.आर.टी में पाठ्यपुस्तकों की समीक्षा की जाने लगी इस कार्यशाला में गणित की पुस्तकों की समीक्षा में मैं भी शामिल था। समीक्षा उपरान्त व एस.सी.ई.आर.टी. में हुई चर्चाओं के उपरान्त यह तय हुआ कि छत्तीसगढ़ राज्य के व शिक्षा के नये विचारों के अनुरूप पुस्तकें बनाई जानी चाहिए। यह भी लगा कि इसमें डाइट के लोगों की भागीदारी के अलावा विषय विशेषज्ञों की भागीदारी भी होनी होगी।

वर्ष 2003 में प्राथमिक स्तर की पुस्तक लेखन का कार्य एस.सी.ई.आर.टी का पहला बड़ा कार्य था। कार्य की शुरुआत कक्षा पहली की गणित तथा हिन्दी के पाठ्यपुस्तक लेखन से हुई।

शुरुआत में एक कार्यशाला की गई जिसमें हम सब शामिल थे। इसमें स्रोत व्यक्तियों और हमारे बीच शिक्षा के सामाजिक सरोकारों, विविधता व बराबरी, विषयों की समझ, बच्चों के सीखने के बारे में समझ, पाठ्यपुस्तक की कक्षा में भूमिका, अच्छी पाठ्यपुस्तक क्या होती है आदि मसलों पर चर्चा हुई। हमने बहुत कुछ सीखा, अपनी समझ को बाँटा व यह समझ पाए की नई तरह

की पाठ्यपुस्तक लिखने की क्यों जरूरत है और उसके क्या आयाम होंगे। इस कार्यशाला में यह भी उभरकर आया कि पाठ्यपुस्तक लेखन के लिए अलग-अलग स्तर पर तैयारी करनी होगी। जैसे व्यक्तिगत स्तर पर, एक लेखक समूह के स्तर पर व एस.सी.ई.आर.टी. के स्तर पर। साथ ही यह भी सोचना था कि इसमें स्कूल के शिक्षक, डाइट व ब्लॉक व संकुल के लोग क्या मदद करेंगे। पूरे काम की प्रक्रिया क्या होगी। उदाहरण के लिए एस.सी.ई.आर.टी. के बारे में यह बात एकदम सामने आई।

एस.सी.ई.आर.टी. में व्यवस्था कैसी हो

- एस.सी.ई.आर.टी. में ऐसी व्यवस्था करना कि लेखक समूह वहाँ ठीक से कार्य कर सकें।
- पुस्तकालय में विभिन्न तरह की पुस्तकें हो, सिर्फ विषय से संबंधित नहीं बल्कि, बच्चों के सीखने से संबंधित, उनकी क्षमताओं से संबंधित शिक्षा में चलने वाली विभिन्न चर्चाओं से संबंधित।
- यही नहीं पुस्तकालय पूरे समय खुला हो व लेखक समूहों को पुस्तकें समय पर उपलब्ध हों।
- लोगों के लिए रहने व भोजन की उपयुक्त व्यवस्था हो, हो सकता है कि यह बिन्दु इतना महत्त्वपूर्ण न लगे लेकिन व्यक्ति की गरिमा उसके सम्मान की दृष्टि से यह महत्त्वपूर्ण है और हमारे यहाँ अमूमन जिस तरह की व्यवस्था की जाती है उस दृष्टि से भी यह महत्त्वपूर्ण लगता है।
- समय-समय पर कार्यशालाएँ हों ताकि संवाद में निरंतरता बनी रहे।

इस हेतु एक विस्तृत योजना बनायी गयी, जिसमें कब कौनसी कक्षा के लिए पुस्तक लेखन होगा, पुस्तकों की ट्रायलिंग, कौन रिसोर्स व्यक्ति होंगे, उनकी क्षमतावर्द्धन हेतु प्रयास इत्यादि सभी सम्मिलित था। और योजनानुसार कार्य हुआ भी।

कार्य करते-करते, धीरे-धीरे बहुत बातें समझ में आने लगीं लेकिन शुरुआत के कुछ अनुभव जिसमें मुझे पाठ्यपुस्तक लेखन से संबंधित कई बातों को समझने में मदद मिली उनमें से कुछ का जिक्र मैं यहाँ करना चाहूँगा।

हमने क्या सीखा

पहली की पाठ्यपुस्तक का पहला ड्राफ्ट बनकर तैयार हुआ। समूह द्वारा उसकी समीक्षा का दौर भी चला। सबसे पहली बात थी किताब की पृष्ठ संख्या ज्यादा थी। उसका एक बहुत बड़ा कारण था कि हम बच्चों को छोटा-बड़ा, दूर-पास, वर्गीकरण, मिलान के साथ-साथ 1 से 100 तक की संख्याएँ, एक अंक की संख्याओं का जोड़ व बाकी, दो अंकों की संख्याओं का जोड़ व बाकी, छूटी हुई संख्याएँ आदि कई अवधारणाएँ व उप-अवधारणाएँ सिखाने की अपेक्षा कर रहे थे। साथ ही यह भी हमने किया कि यदि शिक्षक को कोई अवधारणा समझ नहीं आई तो अवधारणा विकास में किस-किस तरह के अतिरिक्त मौके बनाने होंगे? चलो शिक्षक की मदद के लिए उदाहरण भी इसी में डाल देते हैं। लेकिन हमें यह भी लगता था कि पहली कक्षा के बच्चों के लिए पुस्तक में ज्यादा से ज्यादा 120-140 पृष्ठ हों और सभी अर्थपूर्ण हों व गणित की आधारभूत अवधारणाओं को समझने व रुचि बनाने में मदद करें। अतः पूरे समूह में फिर से चर्चा हुई-

चर्चा के कुछ प्रमुख सवाल थे-

- हम पाठ्यपुस्तक किसके लिए बना रहे हैं। बच्चों के लिए अथवा अध्यापकों के लिए। हम पहली कक्षा गणित में/विज्ञान में क्या पढ़ाना चाहते हैं व क्यों?
- हम गणित व गणित सीखने के बारे में क्या समझते हैं? क्या गणितीय अवधारणा सीखने का मतलब उस अवधारणा को बिना सोचे समझे रट लेना है अथवा उस अवधारणा के विभिन्न पहलुओं को समझना है। उदाहरण के लिए गिनती सीखने का मतलब क्या 1 से 100 तक गिनती लिख पाना है अथवा इसका मतलब यह भी है कि बच्चा संख्याओं में संबंध बना पाए, यह समझ पाए कि पाँच, छह से तो छोटा है लेकिन चार से बड़ा है। यह समझ पाए कि संख्या प्रणाली में आगे बढ़ने के लिए हम हर एक पिछली संख्या में एक जोड़ते चले जाते हैं, इत्यादि।
- ऐसा क्या करें जिससे ये पुस्तकें बच्चों को पढ़ना सीखने में व स्वयं गणित करने व समझने में मदद करें।
- क्या बच्चे पुस्तक में उपयोग की गई भाषा को समझ पाएँगे?
- चित्र किस हद तक उसमें मदद कर सकते हैं?
- क्या, कितने, कहाँ और कैसे वाले अभ्यास हों जो बच्चे की किताब में रुचि बनाए व उसे खोजने के लिए प्रेरित करें।

इन प्रश्नों को ध्यान में रखते हुए जब लेखक समूह ने फिर से पुस्तक को देखना शुरू किया तो महसूस हुआ कि पुस्तक को हमने अपनी समझ से बना दिया था। यह सोचकर कि यह सब हम बच्चे को लिखाना चाहेंगे और इस तरीके से सिखाना चाहेंगे।

हमें लगा कि वे पुस्तकें बहुत भारी हैं। उनमें अवधारणाओं व जानकारियों का बोझा बहुत है। फिर भी उनमें से कुछ से सीखने को मिला। यह याद रखने की ज़रूरत है कि इस समय तक एन.सी.एफ. 2005 नहीं बना था और एन.सी.ई.आर.टी. की भी किताबों में आज की दृष्टि नहीं थी। हम लोगों को दिल्ली सरकार की किताब ने कुछ मदद ज़रूर की थी।

बच्चों के स्तर तक कैसे जाएँ

फिर भी चर्चा के बाद ऐसा लगा कि हम लोग यह ठीक से नहीं सोच पाए थे कि इस स्तर पर बच्चे क्या सीखना चाहेंगे और क्या-क्या सीख सकते हैं और उनके सीखने का क्या बेहतर तरीका होगा? यानी हमने बच्चों के स्तर पर जाकर नहीं सोचा था। इसके बाद जब सोचना शुरू किया तो लगा कि यह बहुत मुश्किल है। मुश्किल इसलिए नहीं कि हम बच्चों के लिए सामग्री बना नहीं सकते या हममें यह योग्यता नहीं है, बल्कि इसलिए कि पढ़ते-पढ़ते हमारी कुछ धारणाएँ ऐसी बन जाती हैं कि हमें लगता है कि अरे! यह तो बड़ा सरल है बच्चा क्यों नहीं सीख सकता, आसानी से सीख लेगा। उदाहरण के लिए एक पृष्ठ जिसमें हमें 1 से 5 तक की संख्याओं को introduce करना है।

पहले तो यह कि क्या 1 पेज में सिर्फ 5 संख्याएँ 9 क्यों नहीं? यदि पेज को अच्छे से उपयोग करना है तो 1 से 9 लें, 5 क्यों?

बड़ी मुश्किल से यह तय हुआ कि 5 या 9 महत्वपूर्ण नहीं हैं, ज़रूरी यह है कि बच्चा उस पर क्या कर रहा है।

आखिर में हमने यह सोचा कि एक चित्र होगा जिसमें एक छोटे तालाब के किनारे कुछ पक्षी, जानवर होंगे व उनकी संख्या हम दर्शाएँगे। चित्र बन गया बाकी अन्य निर्देश को लिखा गया। नीचे दिए गए चित्र को ध्यान से देखो और संख्याएँ लिखो। अब कक्षा पहली के बच्चों के लिए क्या ये ठीक होगा या यह ठीक होगा कि 'चित्र देखो संख्या लिखो।' क्योंकि सभी बच्चे पढ़ना सीखने की शुरुआत करेंगे। समूह का सोचना था कि गणित की पुस्तक भी बच्चों को पढ़ना सीखने में मदद करे। अतः यह सुझाया गया कि निर्देश छोटे व स्पष्ट हों,

व निर्देशों का दोहराव हो, उनमें आए शब्दों का दोहराव हो ताकि बच्चे धीरे-धीरे शब्दों को पहचान पाएँ।

उनका क्षेत्रपरीक्षण विभिन्न जिलों में चल रहा था, लोगों की प्रतिक्रियाएँ आना प्रारम्भ हो गया था।

जब पहली बार गणित की पाठ्यपुस्तक एन.सी.ई. आर.टी. दिल्ली अवलोकनार्थ भेजी गयी, इन्तज़ार था प्रतिक्रिया, आवश्यक सुझाव का। जब मैं तथा मेरे समूह के लेखक राज्य से दूर एक संस्था के साथ चित्रों पर कार्य कर रहे थे, तभी दिल्ली से आई पुस्तक समीक्षा की रिपोर्ट की फ़ैक्स प्रति पहुँची। उसका सारांश यह था—

- इस पुस्तक की भाषा सरल, सहज है एवं अवधारणा बहुत स्पष्ट रूप से समझाई गयी है।
- इसमें गतिविधियाँ भरपूर हैं जिससे बच्चे निश्चित रूप से जुड़ेंगे।
- गणित सीखने में उन्हें आनंद आयेगा।
- नये ज्ञान को आगे जोड़ सकने समर्थ होंगे।

अन्त में उन्होंने लिखा कि एस.सी.ई.आर.टी बधाई का पात्र है।

समीक्षा को देखकर हमें इतनी खुशी हुई कि इस पुस्तक ने हमको पहली बार लेखक का दर्जा दिला

दिया। धीरे-धीरे हम लोगो में आत्मविश्वास का संचार हुआ। इसी समय अन्य कक्षाओं का लेखन प्रारम्भ हो गया। अब इन पाठ्यपुस्तकों का क्षेत्र परीक्षण 4 जिलों में प्रारम्भ हुआ।

छत्तीसगढ़ राज्य को नयी पहचान मिली। अब तक एन.सी.एफ. 2005 भी बनकर तैयार हो चुका था। उसके महत्त्वपूर्ण सुझावों पर कार्यशालाएं आयोजित होने लगीं। यहाँ बहुत सारे अभिनव प्रयोगों में से एक प्रयोग यह भी था कि एन.सी.एफ. की तर्ज पर प्रत्येक जिले में डी.सी.एफ. बने जिसमें जिले की भौगोलिक, आर्थिक, सामाजिक, सांस्कृतिक तथा पुरातात्विक महत्त्व को दिया जाय। हुआ भी यही। प्रारम्भ में यह कार्य सरगुजा एवं रायपुर को दिया गया। सरगुजा जिले ने 2008 में पहली पाठ्यचर्या राज्य के लिए दी जिसके बाद अन्य जिलों ने भी अपनी-अपनी पाठ्यचर्या का लेखन कार्य पूर्ण किया। राज्य की भी पाठ्यचर्या का भी कार्य प्रारम्भ हो चुका था कुछ दिनों बाद वह भी पूर्ण कर लिया गया। डाइट ने आम लोगों के साथ कई चर्चाएँ की और उससे भी हमने बहुत बातें डी.सी.एफ. के लिए मिलीं। मुझे लगा कि डाइट बहुत कुछ कर सकती है बशर्ते हमें मौके दिए जाएँ व हमसे पहल की अपेक्षा तो की ही जाए परन्तु उसके लिए आवश्यक व्यवस्थाएँ बनाई जाएँ व इसकी सम्भावनाएँ पैदा हों।

DIETs: Structure, possibilities, issues and concerns

Abstract

This paper reports on the conception and implementation of the DIETs across different states. The structure of DIETs that focused on decentralisation of responsibility and academic authority provided a more organic teacher education program in developing schools, student learning material and assessments based on the context of the district. The implementation however, was fraught by inadequate faculty placements, role clarity and autonomy and involvement in all major educational activities occurring across their districts.

Introduction

The concept of DIETs dates back to mid 1980s when it became a part of the National Policy of Education 1986. DIET's were seen as a way forward to build institutional ability, to cope with the challenges of providing education of quality to all children. The goal was for every child to be in school and learn. DIETs were to help provide specific responses to the needs and temperaments of different kinds of children. There was a lot of hope around these structures and they were given a vast role. The key elements of the expectations from DIETs included initiating a dialogue with the teachers; encouraging participation and ownership of the community; ensuring that the learning process was more participative and engaging for children; ensuring that the assessment processes were meaningful and according to the expectations laid down in the curriculum documents, working towards developing capability in teachers to transact the curriculum and their responsibilities better. The critical component in the setting up of DIETs was the need to bring in the flavour of the district and ensure that those working in the district were participants and owners of the processes initiated.

Organisation of DIETs for pedagogical renewal

Understandably there was a lot of excitement when DIETs were being set up. There were hopes that they would not only improve pre-service teacher preparation of elementary school teachers but also improve their in-service programs. The setting up was accompanied with the hope of decentralisation of responsibility and academic authority; the hope of autonomy of action and the

freedom to study, analyse and respond to specific requirements of children and the community in the context of elementary education. It was felt that these institutions would act as antennas and bring into the wider national discourse voices from the field. They would also bring to the forefront practices being adopted by teachers in their schools and help present them not only to the others in the district but also share them through a consultative process with other DIETs. The DIET was visualised as the hub of pedagogical renewal for the district and a catalyst of change in the way the education process interacted with children.

A broad structure of what the DIET would be and how it will be populated by experienced faculty as well as a broad agenda for its work and a budget was developed. On the ground, the DIET emerged in many cases through upgradation of the then existing teacher training institutes for elementary teachers and were set up as new in other cases. It was the first time that an academic structure of the size was set up with an agenda unencumbered by any administrative role.

Roles envisaged for the DIETs

The role envisaged for the DIETs primarily included being the vehicle for equality, quality and access to all children. There were attempts to respond to needs of the district and the context of teaching and learning. It was clear that in order to make this possible, the DIETs would need to interact with other teacher development institutes as well. At the time DIETs were set up, there not many other pre-service teacher training institutes.

But later, with the increase in private teacher colleges, the role of DIETs would get extended to include engaging with quality of teacher preparation in them as well. The following were expected:

- Developing teaching-learning material based on the context of the district. These included workbooks, charts, activity materials and books for teachers, supplements to textbooks, including readers for children, and so on. The assessment processes for children also had to be developed according to the materials.
- Capacity building of teachers in all its aspects and dimensions. This implied a key role in pre-service and in-service training programs and setting up of forums and processes of interactions among teachers and opportunities for them to learn on their own and from each other. The DIET was envisaged to be the hub of in-service teacher preparation and it was expected that it would develop and organise a plan for capacity building of teachers in the district and implement it.
- It was hoped that the DIET would observe, study and analyse the district educational processes for elementary schools and develop an understanding of the issues confronting it. It would not only look at the gaps but also highlight the significant, well-functioning strategies. It was supposed to be the hub of academic review and planning for the way education in the district needed to be organized.
- The DIET was also expected to interact with schools, with block and cluster functionaries and make an attempt to ensure motivations on various levels. The idea was that coming in of the DIETs would help in ensuring commitment, ensuring learning, ensuring that all children are in school and that the quality of learning is significantly better than before.
- The DIET was obviously expected to be the vehicle of transformation and an institution that would be able to function autonomously, plan for its own district and evolve ways of quality besides improving access.

A major opportunity for capacity building of DIETs for the above tasks was there integral involvement under DPEP. However, DIETs were

not included systematically in the DPEP process although several individuals from DIETs were very active in various initiatives of DPEP. Under SSA some attempts were made to involve DIETs but this needs to be strengthened.

Is the pie too big?

It does not take a lot of effort to recognize that inspite of many examples of DIET taking up exciting interventions and functioning well most DIETs seem unable to fulfill the expectations given above. The DIETs that have been functioning well over a sustained period of time have also not been able to encompass all these areas. Although there are many sparks of excellent ideas and programs from DIETs, the concern, is that if we look at DIETs in general, the picture is of an inadequate response. A complete programmatic picture suggests that they were started with a lack of evident institutional support to strengthen them. It appeared that in most places there were difficult questions that the DIET structure was struggling with. These included inadequate faculty placements, inadequate role clarity, inadequate autonomy and sense of purpose and a lack of involvement in all major educational activities occurring across their districts. The task of building bridges with the community and of preparing teachers through processes that are based on the analysis of the context of the district appeared very remote. There seemed to be no major shift in the way the community and the teachers thought about education and assessment of students' learning. The bridges that the DIET had developed with the community were very limited in scope and existed within a very small part of the community.

While it may be argued that DIETs had a inadequate staff and insufficient resources, and there were no procedures and processes to enable the DIET to fulfill its role, it is still worthwhile to ponder whether the pie that had been assigned to the DIET was too big. We also need to consider the number and kind of people that would be required to fulfill this role in a reasonable manner. We have to also question if within the center and state coordination and administration there were processes available for the DIETs to function effectively and purposefully to extend their capability and be an agent of change for the schools.

Voices of Teachers and Teacher Educators

Glimmers of hope

In the face of the challenges mentioned above, DIET being located in the district had an immense potential to engage with the process of education in the district. The constraints pointed out above did not totally limit the functioning of DIETs. DIETs were fulfilling an agenda and performing a role that was fairly important and large. The concern is that the purpose with which they were set up and the hopes behind their setting up have remained unfulfilled. We needed to bring to the fore numerous efforts that have been initiated in different DIETs and the keenness with which many of the faculty members have engaged with their role in the face of challenges. There are outstanding examples of leadership that have enabled DIETs to function with energy and purpose. We need to talk about these as well.

The examples of efforts of DIETs in different places moving forward with their programs and exploring ideas are many. The memory of the excitement in Lok Jumbish¹ DIETs and efforts to explore appropriate selection procedures and incentives are still fresh in the mind- the effort made by the teams to get the campus in order and the library and discussion forums functioning. The faculty worked at developing modules for training and consulting with those who had experience of making new kinds of training programs. In fact the meetings where DIETs reviewed their work and planned together had a specific purpose of developing modules and planning their calendar for training their master trainers. All these indicated that these institutions could develop towards realizing the expectations that were hoped for.

Conclusion : Future of DIETs

The struggles with the boundaries of the structure proposed were also surfacing. The larger system was pushing to move towards the suggested structure as cast in stone. The principals and the faculty struggled to keep the work, and push into new directions in order to keep their initiatives alive.

The program collapsed because of the non-acceptance of flexibility. It also appeared that the program was too short-lived to be internalised in the system that was reacting to it. It did, however, clearly indicate what could be possible in the

DIETs. It was clear in this period also that the DIETs could not carry all the load imposed on them. The fact that they did not have to do all that was imposed and use the list given as suggestive to be chosen from, gave them the option of being more organized and better prepared.

The excitement of the DIET in Warangal being a part of the Elementary Education Teacher's Research Network (EETRN) group along with many other institutions including university centers, research institutions including from abroad was evident. They had ideas, were keen enough to set up the system and the interaction initiated fertile studies and joint researches. They learnt from the experience and contributed life to the effort of networking. The evidence of work in Mahendargarh DIET and many other DIETs points to the fact that a lot of what goes on which is positive and needs nurturing to grow. The interaction with faculty and principals of DIETs of Jharkhand, Chhattisgarh, Andhra Pradesh and other states brought forward the urge in many to improve and make their institutions fulfill the expectations they had. The examples of individual principals struggling with the absence of adequate team members, difficult administrative rules, a lack of clarity about their role and expectations and a the lack of their autonomy are heart warming. They urge us to look at the possibilities in them and support them in their endeavour.

These are just few examples to illustrate the energy that individuals and cooperation has brought into the system. It is, however, clear that these could not become part of the institutional processes. They remained linked to new/innovative efforts, to individuals and ended as being temporary. Sometime it was the external recognition of 'goodness' that the effort got that led to it getting unnaturally extended and causing overburden. In all such cases the institution lacking the space to manoeuvre work flexibly could not carryforward the work. The general observation is that newness and individual spark excite institutions to extend themselves. Gradually, the enthusiasm and the sense of purpose fades, the lack of initiative and the absence of desire to be responsible in the faculty as a whole takes over lacking ownership of the idea. They stop taking responsibility and hand over the flexibility to routine procedures. It

is, therefore, necessary to think about and strengthen possible processes that will enable the faculty to be autonomous and use it effectively in their work. The intent of the policy and its guidelines needs to be clarified so that the spirit can be pursued and implemented.

1. Lok Jumbish was a government driven effort to improve the quality of education in Rajasthan. This was done through support of an international agency and with a structure that was not fully inside the government in order to facilitate functioning. Lok Jumbish had as an example taken 3 DIETs under its project. In these DIETs the faculty selection was done by Lok Jumbish. These institutions

were facilitated and scaffolded to build programs and were linked to people and institutions capable of giving ideas on how to improve their work. During this period there were many forums with which these three DIETs interacted with each other and explored possibilities of learning from each other. They also had a defined work plan that was partly shared and common. Visits among these institutions and of these persons to other institutions were encouraged and they also jointly discussed programs to be taken up by each of them. These DIETs had more freedom and autonomy than the rest of the DIETs of the states and followed rules which were more flexible. They had to function with the broad guidelines but the rigid system of the Directorate that was used on the other DIETs was slightly less rigid.

C. M. Balakrishnan and K.M. Unnikrishnan

KALARI : A program for trainer-cum-teacher empowerment

Abstract

This article reports on the formation of *Kalari*, a unique teacher education program that was initiated through discussions by Kasaragod DIET. The initial dialogues helped to problematise issues surrounding the existing teacher education practices that were marked by an absence of professional search for new knowledge pertaining to existing issues in the schools. With the formation of *Kalari*, teachers were able to become owners of their own learning processes and were able to apply specific processes in their classrooms. As the program was implemented, some concerns still remained, specifically, in addressing students who had learning difficulties in the classroom.

Introduction: Problematizing teacher education programs

When people think about learning, they usually think about schools and teachers. In teacher training programs, the schools and teachers are more or less categorized as 'problems' to be fixed, not by teachers, but by some external agents. These agents are referred to as 'resource persons' or 'experts' who excel in some areas of pedagogy. Even with the presence of this external training system, schools and teachers have the potential to learn from their own experiences as well and this is often not recognized. So, 'fixing the problems' becomes the central area of concern of teacher-support structures and personnel. The support system works on the assumption that training is necessary for solving the problems faced by teachers and schools. As teachers enter the classrooms, the same model is transmitted to schools and classrooms where the teacher thinks that teaching is necessary for learning to occur. With this assumption, teaching becomes a mere supply of information or building up of routine skills of the students. The actual problems remain to be raised by the teachers once again in the teacher development programs like CRC meetings, TLM workshops and seminars.

This vicious circle is built upon the general and preconceived notions of the support system where the main agent or instrument is the trainer or CRC coordinator. The whole process becomes supply oriented and the problems are kept at the outer periphery, often unaddressed. The process of training tries to direct the teacher towards vague probabilities. The dangers of this approach to

teacher development is whether this really empowers the teachers or makes her/him dependent upon the trainers. Other dangers are:

- non-ownership by teachers of the responsibility for change;
- dependency on the system;
- craving for newer, novel items;
- absence of professional search for knowledge initiated by the teacher and school;
- fantasizing about support personnel: expecting too much from outside personnel;
- lack of introspective learning; and
- degeneration of programs and interventions.

Health and sustenance of the approach

To what extent is this teacher development support programmed healthy and sustainable? In the context of teacher empowerment in Kerala, this was an issue at the forefront of every discussion but formally problematized by none.

The discussion initiated by Kasaragod DIET at the beginning of the academic year helped to reaffirm its faith by empowering and encouraging teachers and school community members with the willingness and competencies to meet the problems and challenges they faced in educating their children. As the problematizing process began, it helped us realize that it was very difficult to convince the teachers and schools to move out of the vicious circle of dependence. If the teachers and schools were to be empowered, they had to begin problematizing their classroom processes and their school environment on their own grounds.

In search of a model for teacher empowerment

In order to seek meaningful solutions to this issue, the teachers, trainers, DIET faculty members and school administrators interacted through a series of short-term workshops and meetings. It was soon realized by the present staff that they themselves could reorganize their structures instead of relying on outside administrators for assistance. They realized that the teachers could themselves organize issues by priority, develop plans to address them and consequently, implement the plan. This process of problematizing itself would grow solutions to the problem. Moreover, the hope was also that the whole process would also improve the competencies of teachers and school and help them to acquire new competencies which will empower them to face new issues.

Since the teachers and support personnel were not familiar with the process of problematizing, the model could not be developed through a single-shot operation. Workshops or seminars alone would not empower them with the competencies to problematise learning situations. To address this situation, a school-based, collaborative and constructive process, named *Kalari* was planned by Kasaragod DIET in collaboration with SSA Kasaragod in the district. The overarching goal of *Kalari* was to augment the competence and confidence of trainers to provide school, class and subject specific support for the teachers to identify the class room problems and to find solutions in actual school contexts. The approach upon which *Kalari* was based was primarily enquiry-based because the thrust areas and interventions were hypothetical in nature, requiring more empirical evidence to pronounce them as feasible across different classes, subjects and school contexts.

Objectives of Kalari

- to equip the trainers with the competence to transform the thrust areas of teacher empowerment program into equipping the teachers to identify the classroom problems and to find solutions in actual school contexts;
- to enable trainers with the knowledge, processes and experience to animate school structures, resources and management mechanisms for ensuring the atmosphere and conditions for effective learning;

- to activate the trainers towards developing methods (materials, strategies, time, instructions, physical arrangements etc.) for addressing the diversity of students learning problems and application of adaptation processes in the classroom; and
- to equip trainers to develop on their own academic plans to meet the challenges (in terms of learning problems, learning experiences, learning materials, learning atmosphere, socio-economic and educational status of children and their families, physical facilities, school/class culture etc.) in school contexts.

Processes of Kalari

The process of *Kalari* was developed through a series of hectic consultations with the trainers and DIET faculty members. From the very outset, it was recognized that the thrust areas and the list of interventions advocated by the conventional teacher training had to be considered hypothetical – yet to be tested and supported in the actual school contexts of Kasaragod.

This recognition naturally lead the whole program being research oriented and enquiry based. Secondly, any research oriented and enquiry based capacity building program had to be owned by the professionals who were participants in the process. So, instead of pre-conceived notions, time plans and list of structured workshops, it was recognized that *Kalari* had to be highly decentralized and democratic in terms of developing the form, methods and materials for the program. This program was developed through a series of collaborative workshops, developing hypothesis to try out in the actual classroom contexts, analyze actual school experiences and through the trainers' reflective thinking on their experiences.

School attachment of trainers (CRC coordinators)

The school attachment program began on 12th June 2011 in all the BRCs in the district. The DIET faculty members and district level program officers of SSA monitored the progress of the program and provided academic support to trainers by conducting regular classes, observing classroom instruction throughout the day, participating in the SRG and collaborating with them to prepare teaching manuals for the next day.

Voices of Teachers and Teacher Educators

After the initial 5 days of school attachment program, in a 2-day workshop from 18th-20th June 2011, the trainers shared their school experiences in their subject/grade wise groups, analyzed their experiences based on the objectives of the program and fine tuned the action plan.

A trainer (CRC coordinator) was assigned one school where he/she worked for a particular period (10-15 school days) along with two teachers teaching different subjects in the elementary section. They worked along with the teachers through a process tentatively outlined as follows:

- assessment of learning of students against learning indicators;
- identification of learning issues;
- sharing of other teachers' experiences (methods and strategies) used to address similar problems and referencing study reports and cases of success in the SRG meeting;
- framing of hypothesis based on the decisions arrived at for addressing problems;
- identification of methods (activities, materials, strategies like grouping and broad techniques for addressing diversity) for testing hypothesis in order to solve the problem;
- developing a broad frame of activities in tune with the learning method specified;
- development of learning outcomes – what the students should be able to think and do in terms of concepts, skills, processes and attitudes/values;
- identifying the evidences of learning expected;
- continuous assessment of learning as a part of teaching-learning process and providing further feedback and support to students; and
- evaluation of the plan, method and strategies.

The same process lead to new problems and encouraged the teachers to formulate new hypothesis to address the problems that they felt in learning of their students.

Problematizing and new teacher competencies

The process of problematizing as outlined earlier helped us to identify new competencies to be acquired by the teachers, trainers and by the support system. Broadly, the competencies identified belong to the following areas:

- collection and analysis of information on learning;
- problem identification;
- developing plan for addressing the problem;
- building school structures like school resource group (SRG) to address the problem and implement the plan;
- acquiring pedagogic and content knowledge and skills; and
- assessing and evaluating the plan and processes.

This was a significant change from supply oriented and trainer centred teacher-support program to a learning centred and teacher empowerment oriented program

Teacher responses to *Kalari*

How did the teachers of the schools included in the first spell of *Kalari* respond to the program? The areas of responses elicited from them were: Enjoyment of teaching learning; new knowledge and ideas; effectiveness as teacher and applying the learning further. Their responses are as follows:

Enjoyment of teaching

- able to understand students better and deeper;
- home visit and development of students profile;
- development of specific processes to apply in the classroom; and
- recognizing the initiative of students in learning.

Learning new knowledge and ideas and identifying issues in teaching

- A learner who may have difficulties in learning one subject area does not necessarily mean that she/he has difficulties in all aspects of development and learning.
- A separate package for learners who have difficulties in learning is not the panacea for addressing the learning issues.

- Process of case study of (selected) students is necessary for formative assessment.
- Having a small class size does not necessarily mean that they alone understand the difficulties faced by all learners. More training is required to do the same.
- Faulty teaching practices also may contribute towards inadequate progress or low proficiency level of students.
- Ideas and responses of slow learners are not always considered, respected and used in the teaching learning process so far.

Effectiveness as a teacher

- *Kalari* convinced me the need to analyze my teaching in classroom.
- *Kalari* helped me find or develop alternate practices to address a problem and do it.
- *Kalari* developed my capacity to identify and address the problem.
- *Kalari* encouraged me to reflect on my practices, beliefs and assumptions.
- *Kalari* improved my confidence as a teacher.

Applying learning

- will help to apply the process of problematizing in new problem situations;
- will help in adapting and improvising the process according to students' responses; and
- overcome time barrier.

Responses from trainers

The trainers who were a part of the program, *Kalari* commented after the first spell of the program:

- It is a direct experience for us.
- *Kalari* is directed at teachers and us working together as a team, facing problems, finding out ways to address the problem and trying it out ourselves.
- The process was co-constructive in terms of addressing the problem and acquiring new

knowledge.

- It was primarily focused on learning of students and our capacities to address their learning situations and needs.
- It was realistic in terms of addressing the whole school, its structures and resources and teachers.
- It was focused on learning through stating the hypothesis explicitly. It helped us to focus on the intended processes and expected learning outcomes. The planning based on the hypothesis and its detailing of activities helped us to visualize clearly the classroom processes.
- The process was naturally driven by the specific classroom demands that were raised spontaneously through the process of implementation.
- It was a process of self discovery for me and for the teachers and school personnel.

Second and third phase of *Kalari*

The confidence gained by the first phase of *Kalari* demanded a second phase and finally third phase of *Kalari* program. From a supply model of teacher training or the cascade teachers who were undergoing *Kalari* experience themselves began to show a developmental model or creative model of empowerment which really reflected the capacity building to find solutions for the grassroot level classroom problems they encountered in the day to day process.

Forward: *Kalari* an ongoing process!!!

Since the learners are individuals with unique capacities, learning styles and learning speed, the real problems faced by the individual teachers inside and outside the class may vary and the teachers have to find out solutions by themselves. Support structures (DIETs, BRCs and CRCs) have to act accordingly. The situation may demand for a further modified *Kalari* Program.

KALARI is a unique martial art form of Malabar-Kerala which empowers the individual to gain confidence to face problem situations.

Teacher Training Management System: Process and software A Lucknow DIET Initiative

Abstract

This article summarizes a range of efforts put forward by DIET Lucknow, in pursuit of a subtle and a controllable process to schedule, plan trainings and quality delivery of trainings to the teachers in Lucknow district. Starting with the first hand experiences of the demanding nature of the job faced by many principals in DIETs, it proceeds to training methodology, the challenges and factors that led to the evolution of new processes. It also sketches the comparison between the old process to the new and the use of software developed for building training schedules and best practices being followed in scheduling by training controllers at DIET. Finally, it details out working of new process by use of the training management software specially developed for supporting the process. A new work flow process was designed, tested, and implemented with its own gestation cycle.

My earlier years with Lucknow DIET were spent in time and energy on target-based work culture. By the end of every month, there was SCERT or SSA would review the number of teachers trained and the type of training designed.

Truly a challenging job, especially when one is supposed to accomplish digit-based targets and one is being monitored on the qualitative aspects of a quantitative sum. It is assumed that these two essential components are inbuilt, but they are probably not as they don't necessarily happen in cause-and-effect fashion.

There is a provision that a teacher undergoes 20 days of in-service training: 15 days under SSA and 5 days under teacher-education scheme. All DIETs are directly held responsible to achieve target-oriented training every year. This kind of scheduling and planning of the training calendar requires well-defined delivery-oriented participatory linkage with district administrative wing of the education system. If a DIET ensures support from district education officer and spreads well over till block level, a lot can be achieved. There are few basic flaws in the system of implementing training schedules. Though there exist data base of different kinds available there is no dynamic synergy amongst them. For example, teachers data at District Project Office (DPO) is not so comprehensive that one can assess target audience for any particular training course; it is a

simple static data. Data to identify the training needs of teachers at various levels requires certain dynamism in information that speaks about their strengths and also a bit about aptitude and it has to somewhere be indicative of gaps as well.

Many times, we sat together and shared concerns about multiplicity of efforts each year regarding training courses, selection of right set of teachers, record-keeping, planning and managing trainings at DIET level, the investing of energy to ensure attendance etc. My team was consistently engaged on systemic change i.e. developing a holistic annual calendar with monitoring mechanism in place. We had reporting and feedback formats; but something very basic, very vital was lacking.

Meanwhile, there knocked an opportunity. I was asked to lead a group of few colleagues in an exposure trip to Karnataka. In this five day long trip, we were supposed to visit SCERT and a block resource centre. We visited Mysore block. It was a lovely resource centre with certain work culture and a decent ambience despite its old gothic structure. We were informed about all aspects of workings at a block level. They were kind enough to extend all hospitality there as well.

What caught my attention was a hugely elongated red-colored register that immediately reminded me of Kanhaiya Lal in the film Mother India who kept records of the amounts he has

loaned to villagers and was seen waving it in the air with proclaiming his generosity and claim on the amount. The register had good detail about every teacher coming for trainings at block level. I found it good but I could immediately gauge the difficulty of keeping it manually and going back again on manual calculation for generation for various information.

But it gave me a quick idea to work upon. I came back and shared my experience with my team. In 2006, we decided to bring every teacher's name and trainings s/he has received in that particular year. Believe me, it wasn't an easy job. But the final print out of this massive work exposed us to the shallowness of our own work.

Every teacher is supposed to undergo 20 days of training schedule in a year. We found that the range of days varies from 3 to 28, meaning thereby, that one teacher in the district had training of 3 days and some lucky ones got it for 28 days, as against norms prescribed under SSA/TE. And, even this reflected data only in quantitative terms. Quality didn't figure anywhere. I spoke with the Director of SCERT and explained our meaningless efforts put into trainings throughout the year. She was a sensitive and generous administrator. She asked me to share my experience at a meeting where all heads of DIETs present. Some of my colleagues become sensitive and aligned with the issue; some just took it as another part of agenda.

Technology fascinated me always. It looked to me as a very powerful tool. My mind had a full blue print, but I was not equipped technologically. I had few young technology 'geeks' in my network who used to sit with me from time to time. I called Mr. Kapil Pande to discuss the scenario. I discussed at length how to develop software to directly address the problem of dynamic database on teachers. We conducted a couple of consultative meetings with block level functionaries also in the process.

The first step was to collect a set of 'dynamic data' on teachers both at primary and upper primary levels. We developed an expanded format that reflects a teacher's academic and social background with his/her biographic profiling.

It carries a teacher's biographical details, academic qualifications with optional subjects and marks obtained in every subject at each level:

high school / intermediate etc. We collected names of school/ colleges/ universities as well. With this, we started on job profiling such as the first date and place of joining, scale of pay, promotions, earlier assignments etc.

Most important and innovative segment in this was the area of interest. We intentionally didn't call it as area of expertise because there are many things that interest you but none of us necessarily develop expertise; but leaning over certain skills and even a passive passion for anything at least keeps alive the fire to learn and at times perform even if one never has a formal exposure. That was the idea to cash on. Many teachers entered their areas of interest which we utilized later.

We could locate how a science graduate tilted towards environmental science and a post graduate in physics has interests towards music and theatre. Few arts graduates claimed themselves poets and radio artists. Some of them were into social services and some of them appeared experts in art of communications. Science graduates claimed to be masters in muppet-making and some claimed to be expert in producing working models in science. Not only this, some appeared to have excellent combination of many soft skills.

We were in the process of developing a new system and we consulted our coordinators at block levels. They also shared their own miseries as to how it was so difficult for them to make teachers go to training programs. And since there was no mechanism in place, it was very cumbersome to identify habitual defaulters. There were no records at blocks to figure this out, because teachers were not sent to trainings in a systematic way. There is nothing about who should attend training programs in writing. It was mostly verbal. The whole process was on a fire-fighting mode. Despite intimation of the training calendar, there was no pre-planning to match-and-batch. Teachers living in city area, or teachers who were in touch with DIET in some way or other way, or teachers whom block authorities wanted to get rid of for a while were generally sent to trainings.

There was systematic assessment of 'who needs what?' in teachers' training from top to bottom despite all claims of achievements in terms of man days or annual targets.

Voices of Teachers and Teacher Educators

Can a digital mechanism help us get on to a right track? Actually, it did, in many ways.

Let me share now, how we corrected our process and optimized our resources to try to implement quality standards in the training of teachers.

The training process and the resource count

Cascading is the most popular methodology to cover large number of teachers; so training module is hierarchal in flavor. SCERT provides training at state level to create district level resources, and then district in turn creates resources at district level to train a set of master trainers to impart trainings at various block resource centers. To retain quality and to minimize transmission loss in cascading is a big challenge. It calls for good scheduling management to select target audience.

District level

At district level, during planning and making policy on implementation of any particular training program generally persons who are involved are as follows:

- head of the institute;
- training in-charge; and
- group of master trainers consisted of 2-3 teachers from each blocks.

The Challenges

Challenges faced during this process are immense, but to quote a few:

- List of trainees sent for various programs is not consistent with the goal of training.
- Blocks were not well-equipped to keep data of various trainings with their other diverse activities and their demanding role within the block. This leads DIET to have no control of data. Teachers' attendance etc. is regularly required to generate various kind of information to be sent to state to gauge the performance in terms of quality and quantity of the training programs. It consumed lot of energy to look for some kind of records for substantial data.
- While sending teachers for any particular training at any level, no care was taken to their academic background and their area of interest or to identify their needs. It becomes

mostly a group-activity, based on number of the persons required in a batch of training, to put it crudely, is more a head-count in a batch than anything else.

- Since there was no systemic mechanism to pick teachers to create batches, there was always a chance that many teachers would be left out from any training programs due to resistance from training, non-visibility in the certain circumference of block head quarter, attitude of non-compliance, lack of mechanism to identify defaulters, favoritism etc. As a result, some of them availed opportunities to visit district/block headquarter according to their choices. In the whole process, 'need' and 'identification of target' become non-existent.
- Worst was statistical disparity. The attendance management was somewhat crude, some teachers did not get the minimum days of training while other received more than they should.

Looking into the disparities the current system suffered, we decided to improve all aspects of the process of organizing a training program as a matter of policy.

The software and new process were designed to overcome the bottlenecks.

Requirement for process improvement

- creating a centralized data bank at DIET level, by data acquisition and digitalization;
- building an all new process of scheduling training of teachers from primary and upper primary levels;
- strengthening framework for feedback reports; and
- handling the complexity and automation of process.

The Improved Process Strategy

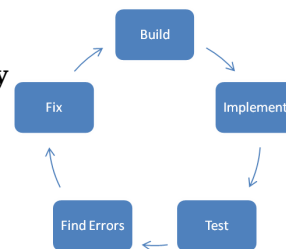


Figure 1. Process strategy for creating schedules and planning training at DIET Lucknow

The new scheduling process

1. DIET come up with a focused strategy and a definite policy and planning to conduct various teachers’ trainings in the districts. For example, if DIET is to create a resource group at block level to disseminate training in mathematics or science, it now has a perfect mechanism in place to select master trainers who are post graduate either in mathematics or in any other science subject.

To elaborate a little more, if we are given a target to train 1000 teachers from both primary and upper primary level in science. Our software immediately works on 'who needs what?' and 'and who needs it first' policy. We sort them out according to their streams. If a person is post graduate, s/he qualifies for being a master trainer. We felt that teachers who were graduates in science did not need immediate training. Then there is a set of teachers who have opted science at high-school level and there are many who did science till intermediate level and then tilted to arts stream. Now, with this data set, making a policy to choose right person does not remain a challenge. Here it is just a matter of management and execution. We formulate that a

group first to be covered are those who have science as stream till intermediate level, because their subject exposure is sufficient and with little work on them to hone their knowledge coupled with teaching methodology we can really work effectively with them. Impact of training is likely to be visible on them and their level of motivation to attend classes during training and implementation of newly-acquired skills in classroom transition is more likely to happen.

To further this policy, there are teachers who have science till high school, they are the ones who tend to show no interest in subject specific trainings, because somewhere they believe that they waste their time and resources of the government as science is never their forte in classroom teachings. But till primary level, we expect every teacher to teach every subject, if necessary. We apply 'peer-learning' formula here. We match them with graduates in science. A mixed batch takes care of learning process in the training room. This approach works in many ways:

- It certainly improves quality in training as the person is well-qualified to handle the job.

Filter Trainees

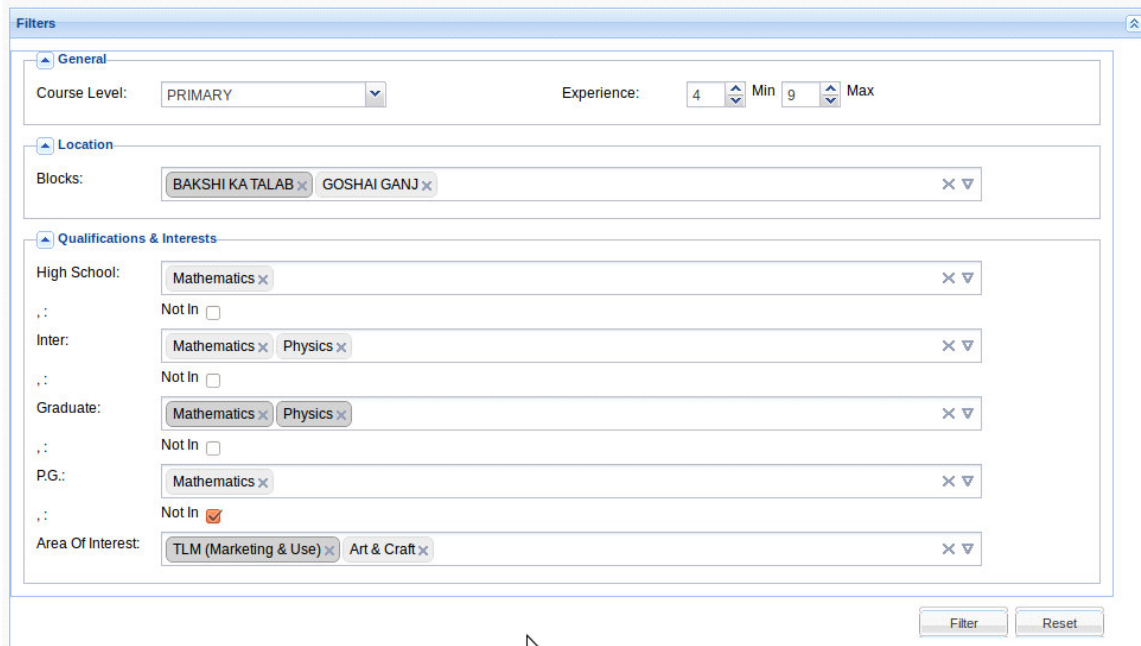


Figure 2. Filtered trainee lists which is used by the training controllers to control the number and nature of students involved in a particular training.

Voices of Teachers and Teacher Educators

- It increases self-esteem and in turn increases motivation to contribute in training.
 - 'Right person at right place' provides new level in entire backdrop.
 - Better matching and batching of the group for different training, and so on and so forth.
2. Software helps DIET in building training schedule based on needs and academic

background, training history, positions, resource policy, and experience etc. For example, if DIET needs master trainers for a training that primarily deals with content knowledge in mathematics, but training has certain component to demonstrate how to create TLM, or few working models, then the software filters one level further. Teachers having a postgraduate degree in Mathematics and also his/her area of interest indicating love for art and craft, computer, or TLM get preference in furnishing the list.

Name	School	Block	Designation	Inter	Grad	PG	AOI
Block: BAKSHI KA TALAB (25 Trainees)							
Block: CHINHAT (16 Trainees)							
ANAMIKA SRIVAS	P.S. JUGGAUR 1 JUGGAUR CHINHAT	CHINHAT	Assistant Teach	MAT, HIN, ENG, PHYS	MAT, PHYS, CH	MAT,	Computer TLM (Marketing & Use) Music Social Work Teaching as Passion
JAI PRAKASH SA	P.S. JUGGAUR 1 JUGGAUR CHINHAT	CHINHAT	Assistant Teach	MAT, HIN, ENG, PHYS	MAT, PHYS, CH	MAT,	TLM (Marketing & Use) Games Social Work Teaching as Passion
KAVERI KUSHWA	P.S. KHARGAPUR KHARGAPUR CHINHAT	CHINHAT	Assistant Teach	MAT, ENG, BIO, PHYS	MAT, PHYS, CH	MAT,	Art & Craft TLM (Marketing & Use) Music Presentation Scripting Teaching as Passion
MADURIMA SRIV	P.S. UTTARDHAUN UTTARDHAUNA CHINHAT	CHINHAT	Assistant Teach	HIN, ENG, BIO,	CHEM, BOTN, Z	CHEM,	Art & Craft Computer Games Teaching as Passion
MANJU LATA AGA	P.S. SALAR GANJ JUGGAUR CHINHAT	CHINHAT	Assistant Teach	HIN, ENG, BIO, PHYS	CHEM, BOTN, Z	CHEM,	Art & Craft Computer TLM (Marketing & Use) Presentation Co-curricular Activities Teaching as Passion

Figure 3

3. As a practice, it is BRC who is supposed to make the list of proposed trainees at district or block level, since he is considered to be the person in charge with respective data of every teacher placed in the block. For them, it is an unmanageable task because it involves lot of thinking, and also manual work of record keeping. This software relieves BRCs of the extra burden of repetitive activities and releases their time and energies for more meaningful assignments. DIET provides them list of teachers for any particular training duly placed in batches. Their job is now to ensure that teachers come for trainings. In case of any change in the list, they are supported back with contingency plan.
4. BRCs are well supported with planning so they concentrate more on attendance, identifying of habitual defaulters and motivating them to attend programs.

Monitoring mechanism

District or block authority can monitor overall quality and attendance of any training program by clicking any teacher's profile.

As it is not possible to cover every single teacher in any specified year, on the basis of tracking mechanism, block officer can plan training for next year according to the target.

Miscellaneous usage

- Data base: DIET has full data base to design and schedule trainings.

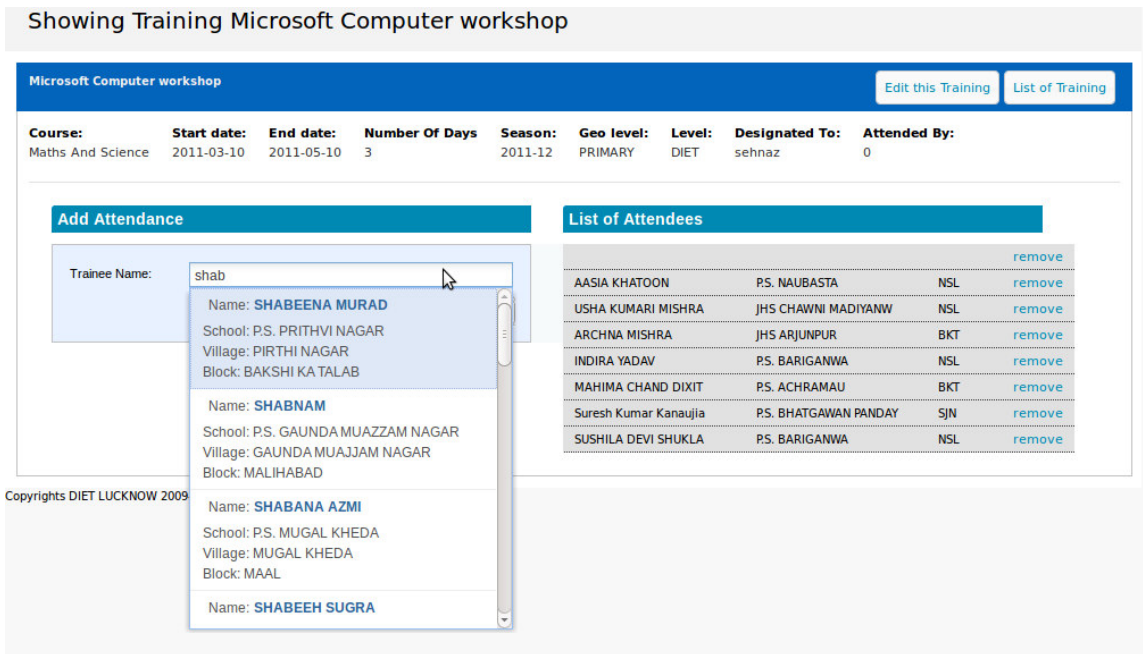


Figure 4. Sample training page, where we manage attendance and other training related things.

- Teacher's profile: Teachers profile is an asset for the district. It not only speaks about their academics, but also about their various interests that they pursue passionately within and outside school premises. The knowledge of their special skills, when utilized in the system, provides them tremendous motivation. Also it provides personal input about a teacher.

The profile is updated every year as to how many training programs a teacher has attended in a particular year. In 2012, an over-all update of data is proposed, because of recruitment at very large scale in the department over the years. Also, we would be including *shiksha mitras*.

The form is titled "New Tmss trainee" and is divided into several sections:

- Add Trainee:** Name field with "Akhilesh Sharma" entered.
- General Info:**
 - Fathers Name, Husband Name, Gender (Male)
 - Date of birth, Caste, Email
 - Address, Phone, Mobile
- Employment Info:**
 - Working Place (Name of School): madl
 - Designation, Date of joining, Date of retirement
 - Working Place dropdown menu is open, showing options like "P.S. MADIYANW I P.S. MADIYANW I (PRIMARY)", "P.S. MADIYANW II P.S. MADIYANW II (PRIMARY)", "P.S. CHAWNI MADIYANW P.S. CHAWNI MADIYANW (PRIMARY)", "JHS MADIYANW JHS MADIYANW (SECONDARY)", and "JHS CHAWNI MADIYANW JHS CHAWNI MADIYANW (SECONDARY)".
 - Subjects: Mathematics X, Hindi X, Home Science X
 - Graduation: Pick Subjects
 - Post Graduation: Pick Subjects

Figure 5. Form to add a trainee in the system.

Voices of Teachers and Teacher Educators

Showing details for AASIA KHATOON

Edit this Trainee Add Attendance Add To Resource Person

General Info

Id: 43
Scert Id:
Name: AASIA KHATOON
Caste: 52
School: P.S. NAUBASTA
Village: WARD 102
Block: NAGAR SHAITRA LUCKNOW
Date of joining: 1973-08-18
Date of retirement: 2010-06-30
Teaching exp primary: 36
Teaching exp up primary:

Course information

Number of courses done in 2010-11: 11

Name	Place	Days
Research Methods	DIET	5
Mathematics	BLOCK	3

Number of courses done in 2009-10: 21

Name	Place	Days
Research Methods	DIET	5
Mathematics	BLOCK	3
Science	BLOCK	7

Resource Person Status

State Resource
Mathematics
District Resource

Figure 6. Sample profile of a trainee used to monitor his completed trainings and progress individually

Futuristic approach

Making of this software is truly need-based. It turned out to be a wonderful asset in the field of planning and managing training programs, creating a huge resource bank.

We are now creating a user log-in for block level education officers, who can be made responsible to feed necessary information at their ends.

This would lighten burden on the part of DIET and would help capacity building of other functionaries.

We are going online with this software, as we are soon launching our website.

शैक्षिक विमर्श की ओर बढ़ते कदम

पिछले कुछ सालों से स्कूली शिक्षा में गुणात्मक सुधार की दिशा में उत्तराखंड राज्य के शिक्षा तंत्र और अजीम प्रेमजी फाउंडेशन की साझेदारी विकसित होते हुए हमारा गहरा रिश्ता बना है।

इस साझेदारी के तहत एक प्रमुख कार्य यहाँ की डायटों के साथ शैक्षिक संवाद का रहा है। शिक्षा क्या है? शिक्षा के उद्देश्य क्या हैं? इन आधारभूत मसलों पर डायटों के साथ विमर्श की प्रक्रिया विकसित हुई है। यह तो सर्वविविधित है कि डायटों के हालात कमोबेश बहुत बढ़िया तो नहीं कहे जा सकते। कुल मिलाकर आधारभूत, मानव संसाधन की समस्याओं के चलते सीमित दायरे में शैक्षिक प्रक्रियाओं की नींव रखी जा रही थी। इन शैक्षिक प्रक्रियाओं में प्रमुख जोर डायटों के अकादमिक समूह की दक्षतावर्धन करना रहा है।

उत्तराखंड राज्य के द्वारा स्वतंत्र अस्तित्व हासिल करने के बाद यहाँ डायटों में पूर्व सेवाकालीन प्रशिक्षण के पाठ्यक्रम (बी.टी.सी.) को बदलने की जरूरत महसूस हुई। राज्य शैक्षिक अनुसंधान एवं प्रशिक्षण परिषद् उत्तराखंड ने बीटीसी के पाठ्यक्रम निर्माण की पहल की और इसमें फाउंडेशन सक्रिय रूप से शामिल हुआ। सेवापूर्व पाठ्यक्रम को नए सिरे से बनाने के पीछे वे कारण और चिंताएँ प्रमुख थीं कि प्रशिक्षणार्थी प्रशिक्षण प्राप्त करके स्कूलों में पदस्थ होते हैं वे अर्जित ज्ञान को कक्षाई स्तर पर लागू करने में असमर्थ पाते हैं। दूसरी दिक्कत यह थी कि सीखने-सिखाने को लेकर जो बातें एन.सी.एफ. 2005 में अनुशासित की गई हैं उनसे पूर्व का पाठ्यक्रम अछूता था। इस लिहाज़ से यह अहसास हुआ कि सेवा पूर्व शिक्षक प्रशिक्षण आमूल-चूल बदलाव की मांग करता है।

बहरहाल, देहरादून डायट पर लौटते हैं जहां वर्तमान में सेवा पूर्व प्रशिक्षण का परिवर्तित पाठ्यक्रम संचालित किया जा रहा है। देहरादून डायट समेत राज्य की अन्य डायटों में सेवा पूर्व प्रशिक्षण का यह कोर्स अब दूसरे साल में प्रवेश कर चुका है। यह कोर्स प्रशिक्षणार्थियों को सीखने-सिखाने तथा बच्चे को समझने के संदर्भ में एक दृष्टि देता है। यह बताना लाज़िमी होगा कि डायट के अकादमिक सदस्यों की एन.सी.एफ. 2005 के संदर्भ

में क्षमतावर्धन का भी सार्थक प्रयास हुआ है। एक तरफ जहाँ शिक्षा के सिद्धांतों को व्यवहार से जोड़ने की कोशिशें हुई वहीं विषयगत मामलों में उनकी प्रकृति की समझ पर गहरा संवाद स्थापित करने की कोशिशें भी जारी हैं। भाषा शिक्षण जैसे नीरस समझे जाने वाले विषय में एक आधारभूत परिवर्तन की ओर यह डायट अग्रसर होता दिख रहा है। जहाँ भाषा जैसे जीवंत विषय में बच्चों को वर्णमाला रटाने की तर्ज़ पर प्रशिक्षण दिया जाता था वहीं इस परिदृश्य में गहरे अर्थों में बदलाव आया है। बच्चा जन्म के बाद जिस तरीके से भाषा सीखता है उसी तरह से उसके साथ भाषा शिक्षण के अवसर दिए जाएँ। इस बात ने पूरी कक्षा के ढाँचे को जीवंतता प्रदान की है। इसी प्रकार से बाकी विषयों की प्रकृति को समझकर सीखने-सिखाने की प्रक्रियाओं को बेहतर बनाने की दिशा में संलग्न हैं।

वर्तमान में डायट देहरादून में बीटीसी के नए पाठ्यक्रम के तहत सेवा-पूर्व प्रशिक्षणार्थियों के साथ सार्थक तथा उनके संदर्भों से जुड़ी अर्थपूर्ण शिक्षा पर संवाद जारी है। इस पाठ्यक्रम में प्रशिक्षणार्थी शिक्षा के सिद्धांतों को व्यवहार में कैसे लाएँ इसके गुर सीखते हैं। इस पाठ्यक्रम के व्यावहारिक पहलुओं को समझने के लिए देहरादून डायट ने अपने लैब एरिया स्कूलों की नए सिरे से पहचान कर उनके साथ जीवंत रिश्ता बनाया है। लैब-एरिया की स्कूलों में बीटीसी के प्रशिक्षणार्थी तथा डायट के अकादमिक समूह के साथी बच्चों तथा शिक्षकों के साथ संवाद करते हैं। इस संवाद में बच्चों को समझना, सीखने-सिखाने को लेकर विषयगत समस्याओं की पहचान करने के लिए क्रियात्मक शोध किए जाते हैं। क्रियात्मक शोध की प्रकृति को समझने के लिए डायट सदस्यों के साथ उन्मुखीकरण शिविर का आयोजन भी किया गया है। इसके अलावा डायट में बीटीसी छात्रों के लिए पुस्तकालय प्रारंभ किया गया है। उल्लेखनीय बात यह है कि इस पुस्तकालय में संदर्भ सामग्री का चुनाव बीटीसी पाठ्यक्रम के तत्त्वों को ध्यान रखते हुए किया गया है। इस तरह से पुस्तकालय की सामग्री डायट के अकादमिक सदस्यों तथा बीटीसी के छात्रों के लिए मील का पत्थर साबित हुई है।

डायट्स के उद्देश्यों में यह निहित है कि वे अपने जिलों में बी.आर.सी. और सी.आर.सी. में सक्रिय भागीदारी कर नेतृत्व प्रदान करेंगे। इस लिहाज से देहरादून डायट के अकादमिक सदस्य बी.आर.सी. व सी.आर.सी. स्तर पर एक योजनाबद्ध ढंग से जाते हैं जहाँ शिक्षा के उद्देश्यों तथा सरोकारों पर विस्तार से चर्चा होती है। साथ ही इन बैठकों में शिक्षकों के बीच सीखने-सिखाने के मसले प्रमुख रूप से उभरकर आते हैं।

विगत तीन वर्षों से डायट की ओर से शिक्षकों के लिए प्रोजेक्ट कार्य पद्धति को अपनाया जा रहा है। शिक्षक बच्चों की छोटी-छोटी समस्याओं को समझने के लिए प्रोजेक्ट तैयार करते हैं। प्रोजेक्ट कार्य का मूल्यांकन संकुल, ब्लाक, तथा डायट स्तर पर किया जाता है। सबसे अच्छे एवं प्रभावी प्रोजेक्ट कार्यों को पुस्तिका के रूप में प्रकाशित भी किया जाता रहा है।

बाल प्रोजेक्ट के तहत कक्षा-कक्ष में बच्चों को बाहर की दुनिया से जोड़ने के लिए डायट के द्वारा एक अभिनव प्रयोग किया गया है। इस कार्य को राजकीय प्राथमिक विद्यालय, कंडोली में किया गया। बाल प्रोजेक्ट के अन्तर्गत निम्न गतिविधियों को अंजाम दिया गया—

- विद्यालय के कक्षा-कक्ष तथा बरामदे में दीवार पर जमीन से तीन फीट की ऊँचाई तक ग्रीन बोर्ड का विकास। यह बोर्ड बच्चों का होता है जिस पर चॉक की सहायता से बच्चे अपनी दिलचस्पी का कार्य करते हैं। बच्चे बोर्ड पर बार-बार अभ्यास करते हुए गलतियों को ठीक करते हैं। इस प्रक्रिया में शिक्षक कक्षा में बच्चों के द्वारा किए जा रहे कार्यों का अवलोकन करते हैं तथा उन्हें आवश्यक सुझाव देते हैं।
- कक्षा में तीन-तीन बच्चों के समूह बने हैं, जो

आपस में बातचीत करते हैं तथा अभ्यास कार्य करते हुए एक दूसरे से सीखते हैं।

- संबंधित अवधारणा को बच्चों के व्यावहारिक जीवन से जोड़ने के लिए प्रोजेक्ट कार्य डिज़ाइन किया जाता है। शिक्षक बच्चों के साथ मिलकर प्रोजेक्ट कार्य को इस प्रकार डिज़ाइन करते हैं कि बच्चा अपने माता-पिता, भाई-बहन, दुकानदार, जनप्रतिनिधि, पड़ोसी, साथी तथा अन्य लोगों के साथ बातचीत करके इसे पूरा करते हैं।
- आकलन शिक्षण-अधिगम प्रक्रिया का एक अंग है। इस प्रक्रिया शिक्षक के पास बच्चों के नाम तथा उस अवधारणा पर आधारित बिन्दुओं को प्रदर्शित करने वाली तैयार शीट होती है। इस पर शिक्षक बच्चों की गतिविधि के आधार पर निर्णय लेता है कि किन बच्चों ने उस अवधारणा को आत्मसात कर लिया है।

बाल प्रोजेक्ट के तहत ही मापन की अवधारणा को समझने के लिए मैट्रिक मेले की अवधारणा विकसित हुई है। बेशक, मापन एक मूलभूत अवधारणा है जो हमारे जीवन से जुड़ती है। इसकी अवधारणा और क्रियान्वयन के पक्ष राज्य स्तर पर तैयार किए गए जिसमें डायट और स्कूल के शिक्षक शामिल हुए थे। देहरादून जिले में मापन मेले का आयोजन स्कूली स्तर पर किया जाता रहा है जिसमें बच्चे मापन के गुर सीखते हैं।

अगर डायट देहरादून की बात करें तो ऐसा नहीं कहा जा सकता कि यहाँ के हालात सब कुछ ठीक तो नहीं। मगर इन समस्याओं के चलते सीखने-सिखाने का एक माहौल बना है। कुल मिलाकर हम यह कह सकते हैं कि डायट में आशावादी नज़रिए के साथ एक कोशिश की जा रही है।

Dr. Anil Paliwal

Experiences of organizing the National Seminar on Rethinking Secondary Teacher Education

Abstract

This paper narrates the experiences of a CTE in taking on attempting the pace setting role in secondary education by organising a National Seminar on Rethinking Secondary Teacher Education.

At Vidya Bhawan CTE while we were engaging with the task of improving both our pre-service and in-service programs, there were many things around us that were disturbing. One of them was the quality of teachers we were getting from teacher education programs. The faculty of Vidya Bhawan CTE shared the general perception that the current teacher education programs were not capable of producing effective and desirable teachers for our schools who could cater to the needs of the society in the ever changing socio-economic context.

We were wondering if our CTE could make this issue an issue of larger concern and initiate a meaningful discourse and debate on this question. Our experience as a CTE and before that of being an IASE was rich because of our collaborations with other organizations. We had hosted many international and national seminars which were in collaboration with NCERT, NCTE as well as SIERT, Rajasthan. We had conducted many orientations and were continuously making an effort to share ideas on elementary and secondary teacher education in Rajasthan. We are also proud of the fact that we have initiated many programs as part of our teacher preparation that have informed curricular and transaction processes of pre-service teacher preparation programs.

Given our interaction with teachers and also from our visits to other colleges we recognized the need to have a dialogue among institutions running pre-service teacher preparation programs. This, we felt, was necessary because all those whom we met indicated the need for the creation of a forum where they could share and

analyze their experiences and articulate the challenges and problems they face. Many wanted to share the ideas that they had tried out and wanted feedback on them, others looked for more experienced peers to help them build their understanding.

Conceptualizing and organizing a two-day seminar for teacher educators was a remarkable experience. We were able to get some of the leading figures from NCERT, NCTE as well as from NGOs engaged in education. But for us what was more important was that we were able to get over a 100 teacher educators from different colleges of Rajasthan to participate. What was overwhelming was that, many of them for whom we could not find funds, supported their own travel and enthusiastically participated in the sessions. The committee which was set up to review the papers and abstracts had a tough time as, in each category there were many papers that came in. It can be argued that the quality of the papers was not outstanding but the response indicated the felt need of most colleagues in the institutions who were looking for an opportunity to express their genuine concerns and get feedback.

The seminar was interesting in another sense also. Breaking from the traditional format of presentations where either a select few papers are presented or all are presented in a hurried manner such that nobody listens carefully as there is no time for comments and discussions and thus there is no interest left to engage with the presentation, this seminar had parallel sessions of paper presentations in four groups. The groups were formed based on broad themes. Each group

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consisted about 20-25 paper readers and a few others who had come there to listen and participate. In this process all papers were presented in one or the other group. Each person had adequate time to present followed by discussions on the paper. While this meant that everybody could not listen to all papers presented but there was more engagement with each paper presentation and people were able to talk about the presentation in the paper and how they agreed or disagreed with them. The summary of ideas from each group was presented in the plenary session of the following day. The paper was not expected to be read out but the author was expected in the given time to explain the background of the paper and present the main ideas clearly.

For all of us at Vidya Bhawan CTE, it was a remarkable experience making arrangements, organizing sessions, consulting with people on the organization of the presentation. In this process, we also recognized the immense need for taking forward this process and also the need for structures that can build capacity of teacher educators in different colleges. The expansion of teacher education in Rajasthan has created a lot of space for teacher educators to engage with students. Their need to make this engagement

effective through the process of capacity building was acutely felt by all those who were present. The other key feeling was that there is a need for creating a new vision for teacher education and that teacher education should be developed as a separate discipline. The need for more emphasis on teacher education, its more effective management and making it a part of higher education was also emphasized.

There was also concern about the uniformity seen in the courses and it was felt that there should be greater flexibility in terms of periods, content, transaction and methodology. There must be freedom and space for creativity to design innovative curriculum and alternative models of teacher education.

What we also realized after this is that there are a lot of possible roles that we could take up as a CTE. It required a bit of initiative, encouragement and support so that some of the requirements for such processes could be taken care of. These were not covered by the scheme but were a part of the framework and we could extend the role in a manner that we could fulfill the requirement. We also felt the need for organizing programs for orientation and more rigorous preparation of the teacher educators in colleges.

**Report of the meetings of
State Education Secretaries and Directors of SCERTs on
Teacher Education**

3rd December, 2011 Kolkata : 14-15 December, 2011, NUEPA, New Delhi

Both meetings were convened by Dr Amarjit Singh, Joint Secretary, Department of School Education and Literacy, Ministry of Human Resource Development. State Education Secretaries and Directors of SCERTs from this region attended the meeting. Dr Amarjit Singh informed that the Ministry of Finance has given approval for revision of the Teacher Education Scheme, which was last revised in 2002. Shri Vikram Sahay, Director, Department of School Education and Literacy made a presentation on the proposed Revised Scheme of Teacher Education. The rationale for the Department's proposal to revise the Scheme consist of the following :

- to fulfill the mandate of the government under the RtE Act;
- to consolidate and strengthen the existing institutional structures;
- need to expand capacity of teacher education institutions (TEIs) in Eastern and North-Eastern region (NER) states;
- expand institutional capacity to provide training of in-service secondary school teachers to fulfill requirements under the RMSA;
- link elementary teacher education with higher education system;
- greater use of ICT in teacher education institutions; and
- develop and put in place an institutional mechanism for monitoring and assessment of the functioning of the TEI.

The funding pattern for the implementation of the Scheme for general category states funding pattern would be 75:25 whereas for North-Eastern states including Sikkim it would be 90:10.

The state representatives welcomed the proposal to revise the Scheme. Prof. Janaki Rajan made a presentation on the overview and implications of RtE 2009, especially the crucial role of teachers. Prof. M.A. Khader stated that RtE is an unique opportunity for this generation and we need to grab this opportunity with both hands for making a substantial improvement in school education. Dr. Jayashree Ramadoss stated that the HBCSE has undertaken 2-week contact program for 50 teacher educators in West Bengal and Bihar (August- November, 2012) which will be followed up with a 3-day program in both the states in January-March 2013. Outcomes of these would be the availability of course material and building network at state/national level. HBCSE also proposes to bring out some booklets, which will be circulated. Prof. Padma Sarangapani pointed out that teacher education has been neglected for long. She suggested that for ensuring effective implementation of the Teacher Education Scheme, DIETs should be reorganized. There should be clarity in the outcomes expected out of DIETs, otherwise there would be mismatch between the outcomes and expectations. Shri Anantha Padmanabhan, Azim Premji Foundation made a presentation on monitoring and outcome indicators for the Scheme. Prof. Kamal Mahendroo, Senior Fellow, Vidya Bhawan Society, Udaipur made a presentation on the efforts of the institution in the area of pre-service and in-service teacher training, including revision of curricula of 2-year D. Ed. course of Chhattisgarh. Shri H.S. Rama Rao, Director, DSERT, made a presentation on the function of the DSERT, Karnataka.

After detailed discussions on the various issues raised, the following decisions were taken:

- MHRD would be circulating the guidelines of the Scheme shortly. Based on these

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guidelines, states would prepare annual plans and submit the same to the Ministry.

- A small group of experts would be constituted for preparation of guidelines.
- A 2-day workshop, would be organized on 14-15 December 2011 in New Delhi. In the proposed workshop, discussions will be held on backlog of teachers; restructuring of DIETs; capacity building of teachers and usage of ICT infrastructure for teacher training.

This two-day meeting on Teacher Education was held on 14-15th December, 2011 at NUEPA, New Delhi and had State Education Secretaries and Directors of SCERTs of the States of Southern, Western and Northern regions. Some excerpts of the presentations are as follows:

Prof. R. Govinda, Vice-Chancellor of NUEPA stated that he was happy to note that the MHRD is serious about the teacher education system and there has been re-thinking in the broader content. He stated that while curriculum in the schools has undergone changes, no changes had been made in the teacher education curriculum. ICT has opened new possibilities for teacher education.

Prof. Poonam Batra made a presentation on 'Education of teachers : Visions and curricular thrusts'. She stated that the long-term vision should be to create professionalism in school education and plugging of gaps could be achieved in the short run. She stated that the specific suggestions made by the two most significant policy commissions, namely Kothari Commission and Chattopadhyaya Commission, for increasing the duration of initial teacher education- 4-year duration after higher secondary or 2 years duration after a bachelor's degree should be adopted. The time frame for institutionalization of these models would be 4 to 6 years. In the interim, the current models of teacher education such as B.Ed and D.Ed. be redesigned both with regard to course content and the program structure.

Ms. Lalitha Pradeep, Principal DIET, Lucknow made a presentation on the working of Uttar Pradesh DIET. One of the major challenges was to create a cadre of teacher educators. She suggested that there should be a mechanism for awarding teacher educators at the national level.

Smt. B. Seshu Kumari, Director, SCERT, Andhra Pradesh made a presentation on the working of Andhra Pradesh SCERT. Dr. S.C. Panikhat, Professor and Head, Centre of Advance Studies in Education made a presentation on the role of IASE in teacher education: problems and future direction. For proper working of IASE he recommended the creation of a special autonomous cell at the state level.

Prof. Janaki Rajan, Jamia Millia Islamia, Delhi University made a presentation on the nature of capacity building of teachers education institutions: IASE, SCERT, DIETs as a seamless learning stream. SCERTs and DIETs perform many roles for many overseeing agencies: NUEPA, NCERT, Centre, State, each do not appear to acknowledge the roles for the other. She also stated that there should be a teacher educator:teacher ratio along the lines of teacher:pupil ratio as specified in RtE. Taking this into consideration the requirements for pre-service and in-service alone, 1:60 ratio is required (1:50 for in-service 1:10 for pre-service).

Prof. Padma Sarangpani, Tata Institute of Social Sciences (TISS) made a presentation on the restructuring of DIETs. She explained that one of the main reasons for the overall dysfunctionality of DIET is due to lack of alignment of the DIET vision and DIET wing with the STE. Until states decide as to what role DIET needs to play the working of DIET vis-a-vis expectation will not be fulfilled.

Shri K. Gurumurthy, IT for change, Bangalore made a presentation on use of technology for improving teacher education by creating learning-communities and provide opportunities for peer-learning and mentoring so that they become co-constructors of learning in both pre-service and in-service teacher education.

Shri Vikram Sahay, Director, MHRD made a presentation on the Revised Scheme of Teacher Education.

Shri Anantha Padmanabhan, Azim Premji Foundation presented a template based on Tamil Nadu DIET for developing performance indicators, in view of the provisions of RtE. Lessons can be learnt for a national level performance indicators.

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Dr Amarjit Singh shared the proposal of development of a website by the Ministry and a prototype website was presented. He also announced that there will be national level awards for teacher educators.

After the discussions, following decisions were taken:

- A committee under the chairmanship of Dr. Amarjit Singh would be constituted for developing the guidelines of the Revised Scheme of Teacher Education.
- The committee would submit the draft guidelines to the Ministry by end January so that the same can be circulated to all state governments for submission of proposals by February end.
- A journal on teacher education would be brought by the Ministry, with the first issue being released in January, 2012 on its website.

International Conferences on Teacher Development and Management : Highlights about DIETs, IASEs and CTEs

Abstract

In the last three years, starting 2009, a series of international conferences on teacher development and management has been organized under the aegis of MHRD. These have focused on teacher development and management (February 2009, Udaipur), pre-service elementary teacher education (February 2010, Delhi) and issues in in-service development of elementary teachers (October 2010, Bhubaneswar). The role of DIETs, IASEs and CTEs in pre-service teacher education was discussed extensively in the conferences. The article attempts to highlight some key issues, related to these structures, emerging from the first two conferences.

Introduction

A number of different institutions are involved in pre-service teacher education in India. These include DIETs, CTEs, and IASEs, not counting the various government and private colleges offering teaching diplomas and degrees. DIETs, CTEs and IASEs were established by Government of India, as a result of NPE 1986 which recommended a complete overhauling of the teacher education system.

While the conferences covered several aspects of teacher education, the structure and functioning of the teacher education institutions was a contentious issue. Time and again it was seen that any discussion on teacher education- whether on pre-service or in-service, on administration, policy or training would ultimately lead to the expectations from DIETs, teacher training colleges, CTEs and IASEs and the extent to which they had lived up to these; the conferences proved no different. Details of the main issues and concerns expressed in the conferences have been documented in the reports of the three conferences, which are available in both Hindi and English.

Emerging trends

The primary focus of the conferences emerged from the need for improvement in teaching and teacher standards. This was based on studies that show a strong correlation between the teacher and students' performance. Therefore, any improvement in learning outcomes demands an improvement in teachers. Here, the role of the initial training

received by teachers before they start working in schools assumes great significance as often this is the longest, sustained capacity building process that they will undergo in their teaching lifetimes. As a result, there has been a demand that the duration of pre-service programs (B.Ed/D.Ed) be increased to ensure better trained and better equipped teachers.

However, the conferences also highlighted studies showing little difference in the quality of teachers who have undergone pre-service training (the 'front-loaded' teacher development model) and those who have not. How do we reconcile this new information with our awareness that the current duration of our pre-service programs is insufficient? It was clarified in the conferences that while on the surface there appears to be a contradiction, it is easily resolved if we acknowledge that the changes in programs should not just be in the period of training but more importantly in the mode and content as well. This is coupled with the formerly unuttered but now increasingly vocal realization that pre-service and in-service teacher education cannot be viewed separately. Their conceptualization and execution needs to be continuous. This is especially vital in the context of RtE 2009 that mandates trained teachers in all schools.

The institutes involved in pre-service training have long struggled to provide quality within the limitations imposed on them. The introduction of NCF 2005 has raised the bar in terms of

expectations from the teacher. The teacher training institutes have the task of preparing teachers to meet this challenge while working with an outdated curriculum. The shift has to happen not just at the level of curriculum but at policy level as well, to meet these new emerging trends.

The status and struggle

DIETs are a vital cog in the teacher development mechanism. This holds true for the IASEs, CTEs and teacher training institutes (TTIs) as well. There are more than 500 DIETs, 100 CTEs and 30 IASEs across India. These came about as a result of NPE 1986 which led to a Centrally Sponsored Scheme of Restructuring and Reorganization of Teacher Education, launched in 1987-88. Two vital focus areas were upgradation of Secondary Teachers Education Institutions (STEIs) into CTEs and IASEs and establishing DIETs. These three structures were set up with the objective of not just providing teacher training, but also to act as centres of excellence in terms of research, innovation, material development and networking.

While the various teacher education institutions are often criticized about fulfilling only a part of their mandate, pertaining to teacher training, and ignoring aspects of TLM development, research and innovation, not enough thought is given to the conditions in which they are functioning. The second conference especially, emphasized the vast differences in terms of what was envisioned and the reality. Many lack the necessary infrastructure in terms of laboratories, classrooms, internet connectivity, libraries etc. Although, there are provisions for an adequate number of staff, posts are either vacant or filled through promotions and deputations.

The qualifications required to become teacher educators in the DIET are high school teaching experience with BA/B.Sc. and B.Ed. degree or an M.Ed. degree. This rigidity in terms and conditions has excluded teachers with elementary school teaching experience or professionals with subject specializations both vital for a vibrant DIET or teacher training institute. The IASEs and CTEs have the responsibility of preparing secondary school teachers as well as the faculty for the DIETs. Pre-service and in-service teacher

and teacher educator education are the major but by no means only objectives of DIETs, CTEs and IASEs. However, these came under greater scrutiny as they are more immediately associated with teacher performance and capability.

Several suggestions and recommendations regarding the work, potential and linkages between the various structures emerged from the conference. Strengthening of ties with the elementary and secondary school and experience of teaching in the elementary schools for all levels of teacher educators was recommended. Restructuring B.Ed and D.Ed courses, especially the examination component, to give the faculty greater flexibility in terms of the nature and content of classroom transaction was suggested. These suggestions were in part based on the experiences of different innovations shared during the conference.

Initiatives

While it may appear that the conditions forbid any innovations and initiatives, and there is lack of coordination between the various structures, there have been instances where new ideas have been tried and implemented. The conference reports highlighted these efforts, two of which are presented below:

D.Ed. program at Chhattisgarh- is an instance where the DIET and SCERT faculty, resource persons from NGOs and institutes such as APF and HBCSC Mumbai collaborated to redesign their D.Ed program in three major- areas the course content, the nature of transaction, and the SEP (school experience program).

This is an example where the DIETs recognized and tried to rectify several drawbacks in their D.Ed. course. The faculty was finally given space to incorporate their year long observations about the students in the assessment. The shift from recall based evaluation permitted shifts in the teaching practices. Student participation, working in groups, making presentations and discussions was encouraged as the faculty could now assess a student on these aspects as well. The experiment proved the capability and willingness of the DIET faculty to set and meet new standards given the right amount of support and conducive environment.

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Teacher education curriculum reform initiatives in Delhi- was a collaboration between the Delhi SCERT, Delhi DIETs, Maulana Azad Centre for Elementary Education (MACESE) and the faculty that had developed the B.El.Ed. program. It came about as a result of the new expectations from a teacher as articulated in NCF 2005 - expectations that could not be met under the old curriculum. Once again, the reforms focused on introduction of new, relevant papers along with increased duration of the SEP to give the student teachers a taste of how theory can be put into practice under actual conditions.

Conclusion

The various TTIs have often been criticized, sometimes justifiably and sometimes otherwise, especially the DIETs. But the conferences also provided a platform to recognize their achievements and come up with suggestions and recommendations to improve the workings. Finally it is the role and responsibility of policy makers to identify avenues for development as it had been amply demonstrated that given suitable conditions and backing, the TTIs are capable of more than fulfilling their mandate.

Excerpts from Revision of the Centrally Sponsored Scheme (CSS) of Restructuring and Reorganization of Teacher Education under the 12th five-year plan

Background

The Centrally Sponsored Scheme (CSS) of Restructuring and Reorganization of Teacher Education was initiated in 1987 pursuant to the formulation of the National Policy on Education, 1986. The National Policy on Education (NPE) envisaged teacher education as a continuous process with pre-service and in-service training being its inseparable components. It emphasized the significance and need for a decentralized system for the professional preparation of teachers, and it was in this context that DIETs, CTEs and IASEs were established.

Modification of the existing Scheme is necessitated in order to meet the exceptional challenges for the teacher education system arising from the important recent and development of the enactment of the RtE 2009. This act, which has come into force with effect from 1st April, 2010, has important implications on the teacher education system in the country. The act inter alia provides as under:

- The central government shall develop and enforce standards for training of teachers.
- The central government shall provide technical support and resources to the state governments for promoting innovations, research, planning and capacity building.
- The appropriate government (central government and state governments) shall provide training facility for teachers.
- The central government shall notify an academic authority to lay down minimum qualifications for a person to be eligible for appointment as a teacher.
- All teachers should acquire the prescribed minimum qualifications within a period of five years.

Pursuant to the decision of the Expenditure Finance Committee in its meeting held on 13th November, 2007, the department entrusted NCERT the task to undertake a comprehensive evaluation of the Scheme. The NCERT submitted its report in August, 2009, which was shared and discussed with the state governments and other stakeholders in four regional seminars. The main recommendations of the report of NCERT are as under:

- The Scheme should have a sharing pattern of 75:25 between centre and states (90:10 for North-Eastern States).
- The existing institutions of DIETs should be strengthened in several ways, including providing them an extended mandate of imparting in-service training to secondary and senior secondary school teachers, improving their infrastructure and reorganizing their organizational structure.
- A small percentage of DIETs (10%) could be considered, in the short run, for up-gradation so as to perform the additional functions of undertaking the secondary level pre-service training, the 4-year integrated elementary teacher education program and the pre-school teacher education course. DIETs should have linkages with universities, colleges and well established private institutions; support to be provided to these institutions.
- Existing CTEs and IASEs should be strengthened and more such institutions could be established depending on the specific needs of the States.
- Establishment of a DIET in a block in 196 identified districts with minority/SC/ST concentration. In the remaining blocks of the country, block institutes of teacher education

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(BITEs) should be established for providing in-service training to teachers at the school level. The existing BRCs would get subsumed in the BITEs.

- SCERTs need to be re-vitalized as the lead state-level academic institutions and should develop links with universities. All existing State Institutes of Education (SIEs) to be upgraded as SCERT.
- Curriculum and syllabus of pre-service teacher education courses should be revised in light of NCF 2005. Programs of teacher education institutions (TEIs) should focus on education of children with special needs.
- For attracting good professionals, the university grant commission pay scales of the faculty of the TEIs should be upwardly revised; salary and pay scales of University Grants Commission (UGC) could be followed for the academic positions. The posts of TEIs should be encadred. Career Advancement Scheme should be provided for internal upward mobility.
- Funding procedure should factor in regional variations and provide extra funds to meet local necessities. Central funds should be routed directly to state education secretaries, then to the SCERTs for onward disbursement to the IASEs, CTEs and DIETs. State budget heads should factor in the state's share and central assistance.

The revised Scheme draws from the recommendations of the sub-group on teacher education for the 11th Plan, the findings and recommendations of the report of the NCERT, the discussions held with various stakeholders including the state governments, recommendations made by the Planning Commission in the 11th Plan document and the recent analysis of the teacher education system made with special reference to the provisions of RtE 2009. The analysis shows that in 2009 there were 5.23 lakh vacancies of school teachers at the elementary level and the provisions under RtE would lead to an additional requirement of around 5.1 lakh teachers. Moreover, around 6 lakh teachers were untrained, i.e. they did not possess the prescribed qualifications.

The revised Scheme is guided by the following factors:

- to integrate teacher education with the overall education development in the states in keeping with the mandate of RtE;
- the need for expansion of capacity of teacher education institutions, especially in some of the deficit states of East and North-Eastern region;
- address the problem of large number of untrained teachers and the possibility of large number of persons being recruited (because of the pupil-teacher ratio (PTR) specified in the RtE Act) without possessing the prescribed professional qualification;
- expanding institutional capacity to provide in-service training for secondary school teachers in light of the RMSA;
- to link elementary teacher education with the higher education system; and
- to develop and put in place a mechanism to monitor the implementation of the Scheme on various physical and financial parameters with pre-defined outcomes for improving the overall quality of various activities of the teacher education institutions.

Strengthening of SCERTs and SIEs

SCERTs are visualized as lead academic institutions at state level providing support to DIETs, CTEs, IASEs and also engaging in educational research and training. They should function along the lines of NCERT at the state level, engage in providing advice to state governments on policy issues, support implementation and appraisal of programs and undertake programs for quality improvement in school education and teacher education.

Under section 29(1) of the RtE Act, the state government has to appoint an academic authority to lay down the curriculum and evaluation procedure which would be followed by all schools the elementary level. Given their existing mandate, most states have notified their SCERTs as the academic authority to perform this function. The scope of their functioning must encompass curriculum development, preparation of proto type teaching 'learning

material and textbooks for all levels of school education and teacher education. The existing curriculum and syllabus of the teacher education courses will have to be revised in light of the NCF 2005 and NCFTE 2009.

The SCERT should be the nodal agency in the state and establish proper coordination and collaboration with various statutory bodies like Board of Textbooks, Board of Secondary Education and Board of Elementary Education. Alongwith its in-service responsibilities, the SCERT should attempt at evolving meaningful, short-term and long-term teacher education programs on specific themes of specialization for secondary and senior secondary teachers, administrators and teacher educators. Besides these, doctoral and post graduate programs in education/teacher education for early primary to secondary stages should be offered by SCERT. Designing and implementing such programs would also help them in visualizing the relevant inputs for in-service teacher education. Adequate opportunities for continuously updating the capacities of SCERT faculty should be created so that they can discharge their responsibilities in the following areas effectively.

- Training for educational administrators, including head teachers: SCERTs/SIEs should also develop appropriate training material and conduct training for education administrators, including head teachers. With the emergence of panchayati raj institutions and the empowerment of village education committees (VECs) and school management committees (SMCs) for school management (Section 21 of the RtE Act), head teachers and district/ sub-district level education administrators must acquire new perspectives on planning and management. The program components will include a vision on decentralized planning and management of educational programs, including school leadership programs for head teachers. The program would be conducted in a cascade model in which the SCERT would develop resource persons for imparting the training.
- Orientation/Induction training to teacher educators: The newly recruited teacher educators of DIETs/DRCs should have

strong grounding in curriculum, pedagogy and research. They shall be given orientation training (induction) for a period of 14 days by the SCERTs/SIEs by utilizing the expertise of academicians from national/regional level institutions such as NCERT, NUEPA, Tata Institute of Fundamental Research (TIFR), TISS, RIEs, etc.

The Project Approval Board on Teacher Education would approve the perspective plan for the development of the SCERT. These approvals would be based on specific proposals received under the aforementioned components from the state government, including physical and financial estimates of the proposals. States which have a SIE instead of SCERT would also be eligible for the aforementioned central assistance. However, they would need to upgrade the SIE in a full-fledged SCERT.

Strengthening and expansion of CTEs

CTEs conduct pre-service and in-service training for secondary school teachers. They also provide extension and resource support service to secondary schools. The present Scheme provides central assistance up to a maximum of ₹ 1 crore per CTE.

Following assistance would be available in respect of CTEs under the revised Scheme:

- New CTEs would be set up as per the existing norm of one CTE for three contiguous districts. This norm would be relaxed only in exceptional cases. Central assistance for salary of staff of CTE would be limited only to the posts sanctioned and filled up after upgradation of the secondary teacher education institution into a CTE.
- Only government/aided secondary teacher education institutions would be upgraded as CTEs. For selecting institutions for upgradation, the state government should devise clear norms from the viewpoint of ensuring that only institutions with proven quality are upgraded as CTEs.
- Non-recurring central assistance to existing CTEs for strengthening and upgrading their infrastructure in accordance with the infrastructure norms of CTEs outlined in the

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MHRD Guidelines, 1989, based on the specifications and state schedule of rates (SORs). Equipment grant up to ₹ 20 lakh per CTE will also be made available.

- Recurring central assistance for expenditure on salary (for posts sanctioned and filled up after upgradation), ₹ 25 lakh for program and activities, and contingency grant of ₹ 15 lakh per year for meeting day-to-day expenses (including recurring expenses on vehicle up to ₹ 3 lakh per annum, if not already provided for to the institution).
- In respect of new CTEs, non-recurring central assistance for upgrading the infrastructure of the existing secondary teacher education institution in accordance with the infrastructure norms of CTEs outlined in the MHRD Guidelines, 1989 based on the specifications and state SORs. An amount of ₹ 30 lakh will also be available for equipments in a new CTE.

To avail central assistance, state governments must ensure that all the posts of academic and non-academic staff in the CTE are filled on or before 31st March, 2013 and thereafter; the vacancy should not be more than 5% of the sanctioned strength.

Strengthening and expansion of IASEs

The present Scheme provides for upgradation of an existing government/ government-aided secondary teacher education institution/a department of education in a university conducting B.Ed. and/or M.Ed. program into an IASE to perform the following functions:

- pre-service secondary teacher education program (B.Ed.);
- programs for preparing teacher educators (M.Ed.);
- in-service training of teacher educators (mainly DIET faculty);
- short-term courses for teacher educators of CTEs;
- develop resource material for teachers and teacher educators;
- conduct advanced level fundamental and

applied research and experimentation in education; and

- M.Phil. and Ph.D. (subject to availability of necessary faculty and facilities).

The criterion for setting up an IASE in a state under the existing Scheme is: (a) state with 20 districts or less- 1 IASE (b) states with 21-40 districts- 2 IASEs and (c) states with more than 40 districts- 3 IASEs. An IASE eligible for recurring and non-recurring central assistance up to ₹ 2.25 crore for the entire plan period.

IASEs will be additionally required to set up units/centre that would undertake in-depth work in specific areas including research and material development in areas of curriculum studies, Pedagogic studies, assessment and evaluation, apart from the responsibility of educating teachers and teacher educators. This will ensure the development of a professional cadre of teacher educators with specialized skills. These institutions would also act as regional resource centers, each catering to state-owned teacher education institutions in the vicinity as a resource centre for these institutions for various activities, including development of curriculum and learning material, educational planning and administration, development of modules for training of educational administrators. It is proposed that departments of education in state/ central universities be upgraded as IASEs.

Continuation of support to DIETs

DIETs are nodal institutions for improving the quality of elementary education in the district. They were mandated to transact pre-service and in-service training programmes for elementary school teachers. In certain small districts of the country, which do not require a full-fledged DIET, there is provision for establishing a district resource centre (DRC). The following modifications are made in the existing norms of central assistance to DIETs

- Condition for central assistance- The study conducted by NCERT and reports received from the state governments indicate that large vacancies of academic and non-academic posts exist in several DIETs. State governments have been rather slow in filling up the vacancies in the DIETs/DRCs.

Further, most state governments have not created a separate cadre of teacher educators, even though they were required to do so. Both these factors have undermined the capacity of the DIETs to perform their functions efficiently. It is accordingly mandated that central assistance would be released to the state governments with respect to the existing DIETs/DRCs only if the state create a cadre of teacher educators and fills up all the vacancies by 31st March, 2013 and thereafter, the vacancy should not be more than 5% of the sanctioned strength. In respect of new DIETs (established 11th Plan onwards), all the sanctioned posts should be filled up within a period of one year of establishment.

- Reorganization of DIET Structure- The DIETs need to be strengthened in all respects in terms of organizational structure, physical infrastructure, academic programs, human resources, financial support etc. In view of the large requirement of training of teachers under the RMSA, DIETs will also be responsible for in-service training of secondary school teachers. This would require a reorganization of the existing DIET structure. Moreover, as the study by NCERT has indicated, while there are 7 branches in a DIET, several of the branches have either been non-functional or partly functional, while some have outlived their utility. The inflexibility in the organizational structure of the DIET has led to a sub-optimal utilization of its human resources and its inability to allow innovation and prioritization of its activities.

In order to allow DIETs to have flexibility in utilizing its human resources in an optimal and efficient manner, it would be desirable to specify the various programs and activities that they are expected to perform and allow each DIET to reorganize its resources depending on the importance of one or more program/activities for each of them. A committee consisting of representatives of the SCERT, principal and senior lecturers of the DIET and the district education officer (elementary and secondary education) should recommend a re-organized structure of the DIET, to the secretary education/director, SCERT. Alternatively, the secretary

education of the state government should, in consultation with academic bodies such as SCERT, prepare alternate models of the DIET structure which would then be adopted by the DIETs in the state. The teacher educational approval board (TEAB) will be the final authority to approve changes in the organizational structure and all proposals should be brought before it for approval.

DIETs will be overall responsible for activities relating teacher education and school quality/school improvement in the district, and work with the block institutes for teacher education BITEs, BRCs and CRCs towards:

- organizing and conducting a high quality pre service teacher education program for elementary school teachers;
- organizing and supporting teacher professional development (including head teachers);
- academically monitoring and supervising of schools, school improvement and school development;
- serving as an education resource centre for the district extended to reach teachers in conjunction with the BRCs and CRCs;
- meeting district specific needs in areas such as district specific material development, research and action-research programmes for special groups in the district; and
- developing the district academic plans and monitoring the quality of schools and teaching in the context of the RtE, and coordinating the work of other agencies which may be working and contributing to the strengthening of the public education system in the district.

Establishment of BITEs in SC/ST and minority concentration districts

There are a large number of districts having high concentration of SC/ST and minorities where there is an urgent requirement of setting up elementary pre-service teacher training institutions to ensure preparation of elementary school teachers from amongst persons from the community. While the policy for elementary education has a foundation for inclusive

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education and includes strategies for sensitization of teachers to the specific needs of children belonging to SC/ST and minorities, the establishment of these institutions would ensure access to good quality teacher education facilities for rural and remote areas and facilitate the entry of talented persons, particularly persons from SC/ST and minority concentration areas, into the teaching profession. This would help ensure the participation of SC/ST and minority groups in the teaching profession and also overcome the shortage of locally based teachers in these areas to be employed in elementary schools.

The Ministry of Minority Affairs, Government of India had obtained 'in principle' approval of the cabinet on the proposal to set up teacher education institutes in minority concentration areas. The Ministry of Minority Affairs has prepared a list of 90 minority concentration districts (MCDs) based on the 2001 census data on population, socio-economic indicators and basic amenities indicators. List of the 90 MCDs, along with the list of districts with SC population above 25% and ST population above 50%, based on 2001 census data.

It is proposed to establish 196 BITEs- one such institute in a block of each of the 90 MCDs and the SC/ST dominated districts (other than the block in which a DIET is sanctioned), for which central assistance would be provided. BITE may be a pre-service elementary teacher education institution. It would be established in the block having the highest concentration of SC/ST/minority, depending upon the criterion for which the district has been identified for setting up the BITE. The revised Scheme envisages the following strategy:

- Possibilities should be explored for approaching well performing elementary teacher education institutions for admitting eligible persons from the SC/ST/minority communities to the teacher education course; the Government would meet the cost of tuition and other fees in respect of persons so admitted
- Identify an existing elementary teacher education institution in the district, other than a DIET, which can be upgraded as a BITE. Non-recurring central assistance would be available for civil works for upgradation of an existing elementary teacher education

institution into a BITE based on the specifications mentioned in the norms and standards of the NCTE for a D.Ed. institution and for a 50-seater hostel, in accordance with state SORs. Equipment grant of ₹ 10 lakh would also be made available. Recurring grant will be made available for salaries in respect of posts sanctioned and filled up after upgradation of the institution to a BITE and of ₹ 5 lakh per year as contingency grant.

- Explore the possibility of using unused capacity or for increasing the capacity of the DIET in the district for admitting eligible persons from these communities to the teacher education course
- Establish a new BITE (in a block other than the one where the DIET is established). Non-recurring central assistance would be available for civil works for construction of a BITE based on the specifications mentioned in the norms and standards of the NCTE for a D.Ed. institution and for a 50 seater hostel, in accordance with state SORs. Non-recurring assistance up to ₹ 20 lakh for equipments would also be available. Recurring assistance would be available for salaries in respect of the posts sanctioned and filled up, including ₹ 5 lakh as contingency grant.

Professional development of teacher educators

Continuous up gradation of professional and academic capabilities is necessary not only for practicing teachers but also for teacher educators. Therefore, special emphasis would be given in the 11th and 12th Plan periods for professional renewal of teacher educators. Refresher courses for teacher educators in government and government aided teacher education institutions (DIETs, DRCs, CTEs and IASEs) need to be put in place. 50 lead institutions would be identified and supported to offer specially designed refresher courses to teacher educators. These institutions would develop and impart 21-day refresher modules in 2 cycles each year, consisting of 40 participants each. Accordingly, around 4,000 teacher educators would be covered each year. Central assistance up to ₹ 2 lakh per course of 21-days duration would be made available to an institution, for conducting up to two refresher courses every year.

Technology in teacher education

The central aim of introducing technology in teacher education is to develop and promote openness for new thinking in an atmosphere of innovation through introduction of methods that are interactive, non-threatening and self-paced and move away from mechanical text-based, chalk and talk methods. Integrating ICT into teacher education is also necessary for bridging the digital divide between government and private teachers, rich-poor, urban-rural, by providing opportunities to effectively use technology to further educational objectives. This will entail hardware support, namely provisioning for satellite transmission facilities in the DIETs. It will also entail provisioning for software support for developing content and orientation of teacher educators and teachers.

Public-Private Partnership (PPP) in teacher education

A large number of initiatives have been taken by private not-for-profit organizations in the education sector in providing quality, particularly at the elementary stage. Collaboration of such organizations with teacher education institutions would be extremely useful. Accordingly, SCERTs and DIETs need to be given the mandate to involve not-for-profit organizations for conducting innovative field based programmes relating to teacher education, collaboration in in-service and pre-service teacher education, undertaking impact assessment studies and designing and developing locally relevant material for teachers and student-teachers of teacher education institutions.

Under the revised Scheme, SCERTs and DIETs would have the mandate to involve private, non-for-profit organizations in their activities. The framework for such involvement would be developed by the MHRD.

Monitoring mechanism

One of the problems pointed out in the NCERT Report was the weak monitoring of the outputs and outcomes of the teacher education institutions

and the absence of a systemic and institutional mechanism to measure the effectiveness of these institutions. It becomes incumbent upon the government to develop an institutional mechanism to monitor the effectiveness of the Scheme. It is accordingly proposed to:

- develop a database of the teacher education institutions;
- develop a computerized management information system (MIS) of these institutions along with performance indicators of physical and financial progress of the various outputs and outcomes of the Scheme;
- develop a portal, linked to the MHRD portal, containing (a) and (b) above;
- develop a set of performance indicators of DIETs, CTEs and IASEs for assessing their quality and suggesting for their improvements. SCERT, Tamil Nadu has developed a set of performance indicators for DIET effectiveness. It is proposed to utilize the same for developing national level set of performance indicators for DIETs, CTEs and IASEs;
- identify independent and well reputed institutions (universities, etc) engaged in teacher education and entrust them with the responsibility to periodically evaluate the performance of these institutions (on sample basis), based on the performance indicators mentioned at (d) above; and
- f. entrust SCERTs/SIEs with the responsibility of monitoring the performance of all the DIETs/DRCs and CTEs in the State.

Establish a technical support group at the level of the Ministry, which would provide support to the Ministry for collection, collation and analysis of information received through the MIS, assist in appraisal of annual work plans of the state governments, analyze the reports received from the monitoring agencies, etc.

Comparative Chart of Revised Scheme and Existing Scheme

Proposed Revised Scheme	Existing Scheme
SCERTs	
(i) New 'model' staffing pattern as suggested by the NCERT	(i) Every state has its own organizational structure
(ii) Financial outlay <ul style="list-style-type: none"> a. For strengthening of infrastructure based on state SORs and equipment grant of ₹ 30 lakh b. Establishment of special cells : ₹ 50 lakh c. Specific projects : ₹ 20 lakh p.a. d. Faculty development : ₹ 10 lakh p.a. e. Training of educational administrators and teacher educators f. Salary of faculty/staff in respect of additional posts filled up and sanctioned in accordance with the suggested organizational structure. 	(ii) Financial outlay : ₹ 2 crore for entire plan period, covering following components : <ul style="list-style-type: none"> a. Strengthening of physical infrastructure; b. Establishment of cells for English and Computer Education c. Specific projects on training, curriculum and material development, etc.
(iii) Financial sharing between centre and states: 75:25 (90:10 for NER, including Sikkim)	(iii) Financial sharing between centre and states : 50:50
IASEs	
(i) Financial outlay <ul style="list-style-type: none"> a. Recurring expenditure on salary (for posts sanctioned and filled-up after upgradation), ₹ 25 lakh for programmes and activities, ₹ 15 lakh as contingency grant (including ₹ 3 lakhs for vehicle) b. Non-recurring grant for strengthening and upgradation of infrastructure based on state SORs and equipment grant of ₹ 20 lakhs c. Establishment of new IASEs - grant for infrastructure strengthening and upgradation based on state SORs and ₹ 30 lakhs as equipment grant and recurring grant as per (a) above. 	(i) Financial outlay <ul style="list-style-type: none"> a. Recurring expenditure on salary (for posts sanctioned and filled up after up-gradation) programmes and activities : ₹ 2.25 crore for entire Plan period b. Non-recurring grant : ₹ 70 lakhs for plan period for civil work and equipment c. Establishment of new IASEs : ₹ 1.0 crore for plan period for civil work and equipment

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| (ii) Financial sharing between centre and states : 75 : 25 (90:10 for NER, including Sikkim) | (ii) Financial sharing between centre and states: 100% by centre subject to monetary limits. |
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CTEs

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| <p>(i) Financial outlay</p> <ol style="list-style-type: none"> a. Annual Recurring expenditure on salaries (for posts sanctioned and filled-up after upgradation), ₹ 25 lakh for programs and activities, contingency grant of ₹ 15 lakh (including ₹ 3 lakh for vehicle) b. Non-recurring grant for strengthening and upgradation of infrastructure based on state SORs and equipment grant of ₹ 20 lakh c. Establishment of new CTEs - Grant for infrastructure strengthening and upgradation based on state SORs and ₹ 30 lakh as equipment grant and recurring grant as available to existing CTEs. <p>(ii) Financial sharing between Centre and States : 75 : 25 (90 : 10 for NER, including Sikkim)</p> <p>(iii) Norms for opening up new CTE : Need basis to be determined by the state government, subject to approval by the TEAB</p> | <p>(i) Financial outlay</p> <ol style="list-style-type: none"> a. Recurring and non-recurring expenditure : ₹ 1 crore for entire plan period b. Recurring grant for salaries (for posts sanctioned and filled up after upgradation), in-service training, school improvements, etc. c. Non-recurring grant : Part of overall ₹ 1 crore for civil work and equipments d. Establishment of new CTEs : ₹ 1.0 crore for entire Plan period (recurring and non-recurring) <p>(ii) Financial sharing between centre and states : 100% by centre</p> <p>(iii) Norms for opening up new CTE : 1 CTE for 3 contiguous districts.</p> |
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DIETs

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| <p>(i) Financial outlay</p> <ol style="list-style-type: none"> a. Recurring expenditure for salaries (for posts sanctioned and filled up after upgradation), programs and activities (₹ 30 lakh), faculty development (₹ 5 lakh), contingency (₹ 15 lakh, including ₹ 3 lakh for vehicle facility) ; b. Basis for financial approvals for programs and activities : Each DIET to prepare its annual work plan based on financial and physical parameters which would be collated in state annual plan c. Non-recurring expenditure on existing DIET (for infrastructure strengthening, renovation), based on state SOR and ₹ 20 lakh for equipments. | <p>(i) Financial outlay</p> <ol style="list-style-type: none"> a. Recurring expenditure for salaries (for posts sanctioned and filled up after upgradation), programmes and activities - ₹ 23.50 lakh for programmes and activities per DIET, ₹ 5 lakh for faculty development, ₹ 5.5 lakh for contingency; b. Basis for financial approvals for programs and activities : Financial limits under the scheme c. Non-recurring expenditure on existing DIET (for infrastructure strengthening, renovation, etc) - ₹ 20 lakh per DIET |
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| d. Non-recurring expenditure on new DIET : For civil works based on state SORs, and equipment grant of ₹ 30 lakh for upgraded DIET and ₹ 40 lakh for a newly established DIET. | d. Non-recurring expenditure on new DIET : ₹ 1.75 crore for civil work and equipments |
| (ii) Financial sharing pattern : 75:25 (90:10 for NER, including Sikkim) | (ii) Financial sharing pattern : 100% centre (other than existing committed state liability) |
| (iii) Norms for establishment of new DIET: DIET in each district created upto 31.03.2011 | (iii) Norms for establishment of new DIET: 1 DIET in each district created upto 1.04.2002 |
| (iv) Staffing pattern of existing DIET : As suggested by NCERT; however, organizational structure can be flexible to be decided by the respective State Government | (iv) Staffing pattern of existing DIET : As in 1989 Guidelines |
| (v) To be provided vehicle facility | (v) No such provision |
| (vi) Functions of DIET : Pre-primary to secondary for in-service training. | (vi) Functions of DIET : elementary level |
| (vii) DRCs to be upgraded as DIETs | (vii) No such provision |

New Components

Establishment of Block Institutes of Teacher Education (BITEs)

To be established as a pre-service elementary teacher education institution in 196 SC/ST/MCDs. Non-recurring grant for civil work as per State SORs and ₹ 10 lakh for equipments. Recurring grant for salaries (based on actual) and of ₹ 5 lakh per annum for contingency. Centre State sharing ratio to be 75:25 (90:10 for NER States, including Sikkim)

Professional Development of Teacher Educators

50 lead institutions in the country to conduct orientation courses for teacher educators for 21 days @ ₹ 2 lakh per course.

Technology in teacher education – hardware and software support in every DIET for satellite transmission facilities

To provide for hardware and software technology support (EDUSAT facilities) to DIETs.

PPP in teacher education

Enable SCERTs and DIETs to involve not-for-profit organizations for conducting innovative field based programmes in teacher education, collaboration in in-service and pre-service teacher education, undertake impact assessment studies, etc.

Book Review

J. P. Das, Reading difficulties and Dyslexia: An interpretation for teachers. 198 pages. New Delhi: Sage Publications. 2009. ₹ 325 (paperback)

Summary: This book provides a comprehensive overview of reading difficulties and dyslexia by analyzing the underlying processes. The writing style is lucid and it provides evidence from current research. The audience for the book is teachers, teacher educators, and also parents. The process of reading difficulties and dyslexia is interpreted by using the PASS (Planning-Attention-Simultaneous-Successive) processes. This model is used as a theoretical framework for conceptualizing the cognitive processes in humans, especially related to the reading processes and also for providing remediation programs. The book is divided into three sections, the first on 'Understanding Reading Difficulties', the second 'Remediation of Reading and Learning Difficulties' and the third on 'The Next Steps.'

Understanding reading difficulties: The content of the six chapters in the first section provides reasons for reading difficulties in children, attributing the causes to be medical, physical, psychological, and cultural. The origin of the word dyslexia is from Latin and Greek, 'dys' as in dysfunction, meaning 'difficult' and 'lexis' meaning 'speech' or 'word' (p. 2). The difficulties in detecting dyslexia are pointed out before a child actually begins to read and write formally. Also, within the spectrum of children who have reading difficulties, the author provides specific guidelines on how we could distinguish those who are dyslexic. These chapters provide an in-depth analysis of the skills needed during the process of reading and how the performance of a dyslexic child is different from those readers who are reading at grade level. Difficulties faced by dyslexic children in tasks of phoneme identification and phoneme manipulation are provided. The author points out that, among other skills required in reading, children who have significant issues in reading comprehension, but not in listening comprehension could be characterized as being truly dyslexic. Children also face challenges in spelling, especially because this act requires sequencing or successive

processing and writing because it requires planning, a particularly difficult task for dyslexics. The author further points to the problematic nature of the concept IQ that is frequently used to predict dyslexia.

Remediation of reading and learning difficulties

The second section comprises of eight chapters and focuses on PREP-PASS Reading Enhancement Program. The assumption underlying PREP is that 'children's difficulties in learning can be modified, reduced, and improved through appropriate cognitive stimulation, that is, the child has an enormous potential for learning, only some of which is exploited in classroom instruction' (p. 72). There are three philosophies underlying PREP. The first comprises a 'microgenetic' approach which assumes that children are equipped with a variety of strategies that can be observed while the child is doing a task, and not just with an analysis of the final product. These provide us with an insight into the child's planning process. Additionally, these strategies can be transferred across tasks. The second philosophy 'sociocultural' based on the sociocultural theory of learning by Vygotsky, hypothesizes that disability provides an opportunity for the child to be creative in other aspects. Lastly, the philosophy of 'rehabilitation' stresses on the educators to focus on the strengths of the child and not the weaknesses. Overall, the author argues that the process of teaching should be used to strengthen and also remove the weaknesses – thus helping the child to 'substitute, replace, and reorganize' (p. 79).

This section also focuses on helping children get ready to read. In particular, the author refers to the COGENT Program (Cognitive Enhancement Training), based on the PASS theory of intelligence. The goal of this program is to help students build their cognitive, language, and phonemic awareness skills by firstly providing them with support to follow instructions and to

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internalize them. Later, students are able to initiate problem solving independently. This section concludes with case studies of several children across different countries who have shown remarkable improvement in reading and general cognitive skills through the use of this program.

The next steps

The last section consists of two chapters. It begins with a discussion of arithmetic because children who are dyslexic have difficulties in comprehension, an essential component for problem solving in arithmetic. The basis of this difficulty is the simultaneous processing required for comprehension. The last part of this section and the epilogue provide further evidence of empirical studies in this area and an integration of the views of reading and the processing of reading difficulties by children.

Addressing Dyslexia in teacher education programs

Overall, the book is a valuable resource, especially for classroom teachers who have students with reading difficulties in their classroom and are not sure regarding the kind of difficulty these students have and what kind of support they need for reading instruction. While dyslexic students can be found in any classroom, teacher education programs often do not prepare teachers for supporting such students in their classrooms (Williams & Lynch, 2010). A study also indicated that while pre-service teachers had some basic understanding of the process of dyslexia as a reading difficulty, they were unclear about the specific phonological processing components of dyslexia (Ness & Southall, 2010). Additionally, teacher attitudes towards dyslexic students are often negative, implying that they do not hold high expectations of students with dyslexia (Hornstra, Denessen, Bakker, Bergh, & Voeten, 2010). This book helps in providing insights regarding

dyslexia to teachers and also in helping them see the strengths of dyslexic students.

While most examples for dyslexia are provided for students learning English as a first language, the author also addresses issues and challenges for students who speak and learn English as a second language. For example, students who have learned to read and write in Hindi or Oriya as their mother tongue, may have difficulty in reading and writing in English because of the differences in how these languages encode the sounds. Further, the author also points to the dangers of teaching a second language (especially English in India) before students have mastered literacy skills in their mother tongues because this could lead to poor comprehension in cases where rote learning is emphasized instead of comprehension.

The book focuses on the program that is more effective in small group or one-on-one settings, its weakness is that it provides limited strategies that could be used in inclusive classrooms. These strategies have been highlighted extensively in Lee and Jackson (2001) and could be used in any setting and be especially beneficial for students with reading difficulties, including dyslexia. Some of these strategies are increasing time for assignments and decreasing length, providing outlines for tasks, using graphic organizers, providing a review of table of contents, using colored highlighters, talking spell checker, portable word processors, and so on. Some specific ideas could also be incorporated in pre-service teacher education such as case studies that focus on dyslexic students, tutoring children with dyslexia, interviewing experts who provide instruction to students with dyslexia, research on instructional approaches, and classroom observations of students with dyslexia in whole group settings (Ness & Southall, 2010).

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Abbreviations

APF	:	Azim Premji Foundation
APPEB	:	Andhra Pradesh Primary Education Project
B.Ed.	:	Bachelor of Education
B.El.Ed.	:	Bachelor of Elementary Education
B.Sc.	:	Bachelor of Science
BA	:	Bachelor of Arts
BITE	:	Block Institute of Teacher Education
BRC	:	Block Resource Centre
CCE	:	Continuous and Comprehensive Evaluation
CLAPS	:	Children Language Accelerating Program for Sustainability
CLIPS	:	Children Language Improvement Program
CRC	:	Cluster Resource Centre
CSS	:	Centrally Sponsored Scheme
CTE	:	College of Teacher Education
CWSN	:	Children with Special Needs
D.Ed.	:	Diploma in Education
DEO	:	District Education Officer
DFID	:	Department of International Development
DIET	:	District Institute of Education and Training
DPEP	:	District Primary Education Program
DPO	:	District Project Office
DRC	:	District Resource Centre
DRG	:	District Resource Group
DSERT	:	Department of State Educational Research and Training
ECE	:	Early Childhood Education
Ed.CIL	:	Education Consultants India Limited
EduSAT	:	Education Sattellite
EETRAN	:	Elementary Education Teacher's Research Network
HBCSE	:	Homi Bhabha Centre for Science Education
IASE	:	Institute of Advanced Studies in Education
ICT	:	Information Communication Technology
IT	:	Information Technology
JEE-IIT	:	Joint Entrance Examination-Indian Institute of Technology
LEP	:	Language Enhancement Program
M.Ed.	:	Master of Education
M.Phil	:	Master of Philosophy
MACESE	:	Maulana Azad Centre for Elementary Education

MCD	:	Minority Concentration Districts
MCD	:	Municipal Cooperation of Delhi
MHRD	:	Ministry of Human Resource Development
MIS	:	Management Information System
NCERT	:	National Council for Educational Research and Training
NCF	:	National Curriculum Framework
NCFTE	:	National Curriculum Framework for Teacher Education
NCTE	:	National Council for Teacher Education
NER	:	North-Eastern Region
NGO	:	Non Government Organization
NIEPA	:	National Institute of Educational Planning and Administration
NUEPA	:	National University of Educational Planning and Administration
PAC	:	Program Advisory Committee
Ph.D.	:	Doctor of Philosophy
PPP	:	Public-Private Partnership
PRI	:	Panchayati Raj Institution
RIE	:	Regional Institute of Education
RMSA	:	Rashtriya Madhyamk Siksha Abhiyan
RtE	:	Right to Education
SC	:	Scheduled Caste
SCERT	:	State Council of Educational Research and Training
SEP	:	School Experience Program
SIE	:	State Institute of Education
SIERT	:	State Institute of Education, Research and Training
SMC	:	School Management Committee
SOR	:	Schedule of Rates
SRG	:	State Resource Program
SSA	:	Sarva Shiksha Abhiyan
ST	:	Scheduled Tribe
STEI	:	Secondary Teacher Education Institutions
TEAB	:	Teacher Education Approval Board
TEI	:	Teacher Education Institute
TIFR	:	Tata Institute of Fundamental Research
TISS	:	Tata Institute of Social Sciences
TLM	:	Teaching-Learning Material
TTI	:	Teacher Training Institute
UEE	:	Universalization of Elementary Education
UFC	:	University Grants Commission
ULIE	:	University of London Institute of Education
VEC	:	Village Education Committee



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