

Aims of Elementary Teacher Education
A Position Paper

Karnataka D.Ed Curriculum Framework
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Directorate of State Education, Research and Training
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Members of the State Focus Group

1. Dr. K Sameera Simha
Secretary
BHS Institutions
Bangalore 560011
Chairman, Core Group
&
Member
2. Ms. Uma Bhuvanendra
Lecturer
Bangalore Urban DIET
Bangalore 560098
Member
3. Ms. Rama
KET College of Education
Bangalore
Member
4. Dr. Mythili R
Director
RV Educational Consortium
Bangalore 560011
Convener

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1. Executive Summary

The position paper charts out the need for revising the present D.Ed curriculum in the state of Karnataka. It then enumerates the aims of elementary teacher education in the light of national, state and global concerns. Pointers for implementing these aims are also suggested.

The present curriculum being followed in the D.Ed colleges of Karnataka was prepared in 2002. It was then that TCH changed to D.Ed as per NCTE's norms. The highlights of this curriculum include:

- Listing of expected competencies and commitments
- Spelling out of curricular objectives in terms of what a teacher is expected to attain at the end of the D.Ed programme
- Providing justifications for changes
- Including internship

However the curriculum fails to adequately address these:

- Implications of transition from certificate course to Diploma not dealt with
- Does not posit D.Ed as the entry level for a continuous professional development
- Internship viewed in terms of "strengthening teaching competency" and "involvement in the functioning of the school"
- Curriculum objectives not articulated in specific, achievable terms
- Stakeholders complain curriculum is too packed

RTE Act & NCF, 2005 call for a fresh perspective to teacher education. This is attempted in NCFTE, 2009.

The principles of a teacher education programme as charted out by NCFTE, 2009 are:

- Integrative and eclectic
- Liberal and humanistic
- Responsive to the demands of inclusive education
- Pedagogical discourse to take in sociological and anthropological inputs
- Reflective practice is the central aim of teacher education

The State's challenges in elementary teacher education are captured in various studies and reports. The primary among them being:

- Curriculum overload
- No separate cadre of teacher educators for ETE
- Poor standard of both teacher educators and student teachers in terms of required content knowledge
- Lack of in-service capacity enhancement programmes for teacher educators
- Lack of sufficient good quality reading materials for both student teachers and teacher educators in Kannada
- Regional disparities within the state

Global concerns include:

- Education for sustainable development
- Education for Peace
- Addressing child rights issues
- Inclusive education
- Value education

The report on the evaluation of state D.Ed curriculum (Murthy. CGV, 2007) makes substantial recommendations for curriculum revision.

The basic premise of teacher education rests upon the needs and requirements of school education, which in turn draws from societal and environmental needs and issues.

Based on this premise, the broad principles of teacher education and the goals of elementary teacher education are spelt out.

The probable outcomes of the proposed revised D.Ed course would be to:

1. Create a professional identity among student teachers positioning teacher as a change agent
2. Assist student teachers to develop their own praxis by linking theory along with field experiences in real contexts
3. Promote self learning and independent thinking by consciously moving away from 'implementation' mode to 'creation' mode
4. Provide student teachers with time and opportunities to reflect to help them reconstruct their experiences
5. Ensure student teachers attain a sound knowledge base and proficiency in language
6. Promote a view of learning as a search for meaning out of multiple experiences
7. Engage student teachers in analyzing school curriculum and text books with respect to societal needs and children's personal needs
8. Learn to use textbooks as a pretext for organizing meaningful learning experiences within and outside classrooms to help children construct their knowledge
9. Prepare student teachers to care for children, enjoy being with them and being sensitive to their problems and needs
10. Equip student teachers to forge links between school and community
11. Build capacities of student teachers to tap into a variety of learning sites and create a range of resources catering to diverse groups of learners
12. Help student teachers question their own prejudices and dogmas in a non threatening atmosphere
13. Sensitize student teachers to recognize inclusive classrooms with social, cultural and linguistic diversity as a strength and resource
14. Train student teachers in alternative pedagogical skills and classroom management techniques that would promote a culture of peace in classrooms
15. Impart principles of sustainable development to student teachers and foster positive attitudes and values towards environment
16. Guide student teachers towards commitment to the profession and its ethical code of conduct

These can be achieved by:

- Strengthening the foundational, practice and reflective aspects of the course
- Including broad based interdisciplinary content, integrated throughout the curriculum
- Not having a packed curriculum with fragmentary bits of knowledge
- Providing an integrated pedagogical content knowledge
- Giving centrality to arts education, work education and heritage crafts especially for inculcating values, dispositions and skills needed to cater to diversity, inclusive classrooms and for promoting peace
- Ensuring D.Ed classroom processes are contextual, and appropriate for young adult learners
- Providing student teachers with many opportunities to learn, unlearn and relearn in a non-threatening ambience
- Giving student teachers space and time for reflections and for addressing their own prejudices and beliefs
- Developing a wide repertoire of good quality reading materials in Kannada
- Ensuring assessments and evaluation of student teachers reflects the varied goals of ETE by means of formative assessment techniques and a variety of assessment tools
- Creating synergy between ETEIs and schools
- Equipping teacher educators to implement this revisioned programme
- Breaking the isolation of ETEIs by networking with institutes of higher education, Government Department functionaries and organization working in the elementary education sector

2. Introduction

Teachers have for long been recognized as crucial change agents and have traditionally occupied an exalted position in our society.

Today, while recognising teachers as “the fulcrum around which education revolves”, in the same breath teacher education is identified as the “most challenging sector” (NCERT, 2009) for systemic reforms in school education. The environments in which teachers work today and the demands placed upon them by society are becoming increasingly complex.

The systemic reforms in school education in the country focus on the development of an inclusive, democratic educational system and envisages school as an institution that catalyses social transformation. The aims of school education are accordingly, spelt out:

- Giving primacy to children’s experiences
- Helping children embark on a continuous process of self discovery
- Making values an integral part of the process of education
- Celebrating cultural diversity
- Promoting and nourishing a wide range of capabilities and skills in children
- Acknowledging different kinds of knowledge and understanding different ways of knowing
- Positing education as a liberating process
- Ensuring an aesthetically pleasing school environment
- Inculcating national pride in children

(From The position paper of the National Focus Group on Aims of Education, NCERT, 2006)

It is important for teacher education to align itself to the demands from school system if these aims are to become a reality. Rather than being viewed as a 'challenging sector' teacher education needs to be acknowledged as a crucial facilitating sector for systemic reforms.

For this to happen, teacher education must become more robust and vibrant. Also, pre-service teacher education should not be viewed as a mere certification programme but be recast as a critical entry point for a continuous professional development.

To equip teachers to face dynamic and complex environments and to help accelerate systemic reform in school education, pre-service teacher education sector has to become more flexible and less prescriptive. This position paper attempts to find ways and means of doing so for Karnataka, on the basis of the recommendations made in the National Curriculum Framework for Teacher Education (NCTE, 2009). While drawing from National concerns and issues, the position paper is geared towards Karnataka's needs.

The objectives of the position paper are:

- To historically trace the aims of pre-service elementary teacher education in Karnataka, as enunciated in existing curriculum/syllabus documents
- To critique the present curriculum
- To delineate national, state and global concerns
- To spell out the goals and outcomes of teacher education drawing from aims of school education, current concerns and State's needs
- To provide pointers for implementation

3. Historical background

Karnataka has a long history of providing teacher education, since 1857, when the first training institution in the state started functioning at Dharwad. Upto 1966, several institutions were offering Teacher Certification Lower (TCL) for which the minimum qualification was a pass in class 8 and Teacher Certification Higher (TCH) for those with SSLC certification. Subsequently the duration of the course was increased to two years.

Soon after the establishment of DSERT in December 1975, a new curriculum was prepared for the TCH course in 1979. The curriculum document does not explicitly state the aims of teacher education. The following commentary is drawn from the section titled “Assumptions and Objectives” of this document:

The curriculum’s intentions were to prepare teachers “to be well versed” in theory and practice, to help them realise the aims of primary school education. It goes on to state that primary education aims at integrated development of the “whole child” by means of developing body, intellectual ability, aesthetic expression and appreciation, social participation and moral qualities. The curriculum has attempted to provide meaningful inputs to prospective teachers to help cater to the then concern of (“whole child development”). The document also points out that prospective teachers should learn to engage with the community and work for the qualitative improvement of their school. A detailed syllabus for work experience for the teacher trainees is also given. (DSERT, 1979).

The next revision was taken up in 1991, post the National Education Policy (1986). In 1988, a pass in PUC was mandated as the minimum qualification for admission to TCH course in Karnataka. The revised syllabus also does not specifically mention either its aims or goals. It merely reiterates the objectives given in the 1979 document, besides listing the objectives of teacher education spelt out in the Teacher Education Curriculum Framework, NCTE (1988). The prominent ones among these echo the concerns of UEE although this is not explicitly stated. For example: “The prospective teacher should have the attitudes and competencies necessary for promoting enrolment, retention and prevent wastage through dropping out; proficiency in handling large, heterogeneous classes” etc.,(DSERT, 1991).

It is also interesting to note that despite the fact that entry level qualification was raised, the syllabus committee has observed that content knowledge of student teachers was inadequate and suggested remedial measures.

4. Critique of the Present Curriculum

The curriculum being followed now was revised in 2002. The nomenclature of TCH was changed to D.Ed – Diploma in Education, as per the norms stipulated by NCTE.

As with the previous two documents, the present curriculum document also does not mention curriculum goals specifically. A curriculum statement is made which reads as follows: “The curriculum of the Elementary Teacher Education of the third millennium would be competency based and commitment oriented, empowering the student teachers to perform their multiple tasks in the classroom, school and community in a

genuinely professional manner. The learning experiences would provide for high quality learning in the cognitive, affective and psychomotor areas of human personality". (DSERT, 2002).

The expected competencies and commitments are listed. This is followed by curricular objectives which are spelt out in terms of what a teacher is expected to attain at the end of the D.Ed programme. While there has been an attempt to align these objectives to the serious concern of education for all, they lack coherence and clarity. For example, "awareness" of current issues is mentioned while elaborating on "competency based" aspects but a conceptual understanding underlying these issues and probable skills required to tackle them are not considered. Similarly the objectives have sweeping terms like 'humane dealings', 'grown in awareness', 'grown in commitment to the profession', 'healthy personal habits', 'personally mature person' and so on, without elaborating them.

More importantly, there is only a cursory mention justifying the change in title of the course from TCH to D.Ed that "the academic level of post-PUC teacher training course is much higher than that of a certificate course". This has not been adequately translated into a robust aim of elementary teacher education, especially as it does not posit D.Ed as the entry level for a continuous professional development. The rigour that the change from a certificate course to a diploma programme entails is neither acknowledged nor reflected in the curriculum document.

Including internship in the D.Ed programme was a crucial and important step taken by the curriculum developers. But it is viewed more in terms of "strengthening teaching competency" and "involvement in the functioning of the school" rather than critically engaging with the theories learnt and as a space for understanding children and their needs.

The translation of the laudable curricular objective of empowering student teachers into the design of the course appears tenuous. Empowerment requires time for reflections,

opportunities for addressing personal beliefs and attitudes, and crucially the ability to critically engage with school curriculum, educational theories, and current issues. By contrast, the curriculum objectives merely recommend acquisition of competencies, development of abilities, and becoming aware of current issues. Also, a recurrent complaint against the present curriculum is that it is too packed, leaving little room for reflection. This precludes a prospective teacher from making meaning of what the course offers and internalise the concepts, skills and attitudes in her professional life.

Finally, as the D.Ed curriculum evaluation report has pointed out, curriculum objectives are to be articulated in specific, achievable terms (Murthy. CGV, 2007). The suggested content and courses of study should flow from these objectives. This correspondence is not robust in the present curriculum.

Alongside addressing these serious lacunae, the current curriculum review process must also take into account the present concerns which are delineated in the next section.

5. Current Concerns, Issues and Expectations

At the National Level

The current focus of educational reforms in our country is on the development of a more responsive, inclusive and democratic system. Teacher is considered “the fulcrum around which the educational system revolves” (NCERT, 2006). Thereby the onus of helping implement the Right of Children to Free and Compulsory Education Act, 2009 and bring the vision of NCF, 2005 to reality falls on teacher education sector.

The RTE Act mandates teachers to:

- Ensure children are free of fear, trauma and anxiety in schools
- Conduct and complete prescribed curriculum
- Promote learning through activities, discovery and exploration in a child friendly and child centred manner

- Cater to the diverse learning needs of every child
- Provide supplementary instruction where required
- Undertake continuous, comprehensive evaluation
- Hold regular meetings with parents/guardians to apprise them about the progress of the child

As per the Act, **every** child should be in school and **learning**. Teachers have to cater to diverse learners and ensure early literacy and numeracy for ALL children.

NCF, 2005 advocates providing each child with an opportunity to think, to articulate ideas and participate actively in learning. Constructivist principles enunciated in NCF, 2005 enforces the notion that in education the learner is the core producer of learning and teaching is meant to give a boost to learning.

For this to happen, NCF, 2005 points out that teachers need to be prepared to (NCERT, 2005; p.108):

- Care for children and love to be with them
- Understand children within social, cultural and political contexts
- Be receptive and be constantly learning
- View learning as a search for meaning out of personal experiences and knowledge generation as a continuously evolving process of reflective learning
- View knowledge not as an external reality embedded in textbooks, but as constructed in the shared context of teaching-learning and personal experience
- Own responsibility towards society and work to build a better world
- Appreciate the potential of productive work and hands-on experience as a pedagogic medium both inside and outside the classroom
- Analyse the curriculum framework, policy implications and texts

In order to prepare teachers who can fulfill these aspirations, the NCFTE, 2009 charts out the broad principles of teacher education as:

- Being integrative and eclectic, “free from, the hold of schools of philosophy and psychology” as well as open and flexible and not prescriptive
- Being liberal, humanistic and responsive to the demands of inclusive education by emphasizing dialogical explorations in lieu of didactic communication
- Recognising social context as the key to classroom processes, drawing from sociological and anthropological inputs which are increasingly contributing to the present day pedagogical discourse
- Appreciating and making use of a variety of learning resources, diversity in learning styles and learning contexts
- Reflective practice as the central aim of teacher education focusing on building teacher’s capacities to construct knowledge, adapt to meet needs of diverse children and diverse contexts, able to make independent judgments at times of uncertainty and fluidity – in short, be a thinking professional

The NCFTE also makes the following recommendations for elementary teacher education:

- Break the isolation of teacher education institutes by forgoing strong links with schools and higher education institutes
- Enhance duration of the course and make it a degree programme
- Make curriculum planning a participatory process involving all stakeholders
- Prepare a cadre of teacher educators specially equipped for elementary teacher education

At the State level

Alongside National level expectations, there are specific issues and concerns relating to elementary level teacher education in Karnataka. These are briefly reviewed below along with the recommendations made by state level committees and studies.

The Task Force on Education in its report on *Quality Improvement in Elementary Education (2001)* had made the following recommendations, among several others to improve the quality of Teacher Education:

- Careful selection of faculty of DIETs based on aptitude and academic competence
- Compulsory teaching programme for DIET and TTI faculty in elementary schools for one or two weeks every year
- Separation of PSTE wing of DIETs and setting them up as TTIs
- Introduction of B.Ed in Elementary Education
- Relieving DSERT of the administration of TTIs to enable it to focus on quality improvement

The Government of Karnataka had commissioned sub-sector studies in education, teacher education being one of them. This report has pointed out the following inadequacies (Jayalakshmi. TK, 2002; p 56):

- Duration of Teacher Education at primary level is insufficient to develop certain skills and content knowledge among trainees
- The standard of both lecturers and students in the pre-requisite content knowledge is very poor
- Teacher education curriculum is loaded with theory as well as a number of assignments

- Teacher educators of all TTIs are not involved in the special programmes like DPEP, IED and are therefore deprived of good experiences
- No organized academic supervision of the TTIs, especially unaided colleges has resulted in poor quality

Subsequently, the *State Perspective Plan for Teacher Education* (DSERT, 2004) has noted that a spurt of quantitative expansion has resulted in “major concerns regarding the quality of education.” This document also noted the following “quality concerns”:

- Inadequacy of resources
- Progressively decreasing number of students of science enrolling for D.Ed course

The Perspective Plan has suggested giving “due importance” to content enrichment of student teachers. It had also recommended that the D.Ed curriculum be reviewed “to make it more responsive to the needs of the primary school system in the state.”

As a follow-up of this recommendation, an evaluation of the state D.Ed curriculum was taken up. A “rational” evaluation was done and the report has made substantial recommendations for curriculum revision (Murthy, CGV, 2007).

A Comprehensive Study of the Progress of Education in Karnataka (Rao. J, 2009) has identified lacunae in the D.Ed curriculum. The study points out that the D.Ed curriculum is a replica of the B.Ed curriculum. The author feels Western Philosophies and Sociological theories are given more prominence at the expense of Indian experiments. He faults the curriculum for “totally dispensing with, or at best, condensing and limiting to one paper” the various philosophies and theories of education. Instead, he suggests that D.Ed curriculum should include important reports; contributions of NGOs; comparison between Karnataka and other states; and the various intervention programmes taken up in Karnataka. The author also points out that teacher educators are not given in-service training programmes. He notes that

teacher educators in D.Ed colleges have B.Ed/M.Ed qualification with experience in secondary education. This has led to a situation where teachers' needs at the primary level are not catered to adequately. Finally, the author brings to fore the lack of sufficient resource books and materials for both student teachers and teacher educators.

Azim Premji Foundation had taken up a quantitative study to understand D.Ed colleges (Rishikesh, 2009). The study found that 12% of D.Ed colleges have closed, less than 5 years of their being set-up. A further 14% are on the verge of closing down. While resources like library and computers are available in all colleges their usage is poor. The study also found that the proportion of male teacher educators is high while 60% of the students enrolled in D.Ed colleges are girls.

A large scale, qualitative study initiated by Karnataka Jnana Aayoga confirms these findings (Mythili.R, 2011). This study also ascertained the perceptions of nearly 1000 student teachers and 600 teacher educators about the present curriculum. The highlights among these are:

- In the opinion of teacher educators curriculum is too heavy for two years
- Many teacher educators complained of shortage of time for content enrichment
- In a majority of colleges, periods allotted for non-cognitive components are being utilized for theory classes
- Student teachers complained of curriculum overload
- They also complained about excessive written work in the form of assignments
- Student teachers want additional inputs on preparing TLMs, NaliKali and Chaitanya

A brief summary of this report is annexed (vide Annexure1).

There are also issues related to elementary school education. While the state has a widespread network of elementary schools and has achieved near universal enrolment (World Bank, 2002) equity and quality concerns remain. There are also regional disparities to contend with (Mythili,R. 2008).

Also, the Government of Karnataka has invested heavily for ICT in Education. However a recent study (Mythili.R, 2010) indicates sub-optimal usage and in fact ICT programmes appear to augment and reinforce teachers didactic pedagogical beliefs rather than challenge them.

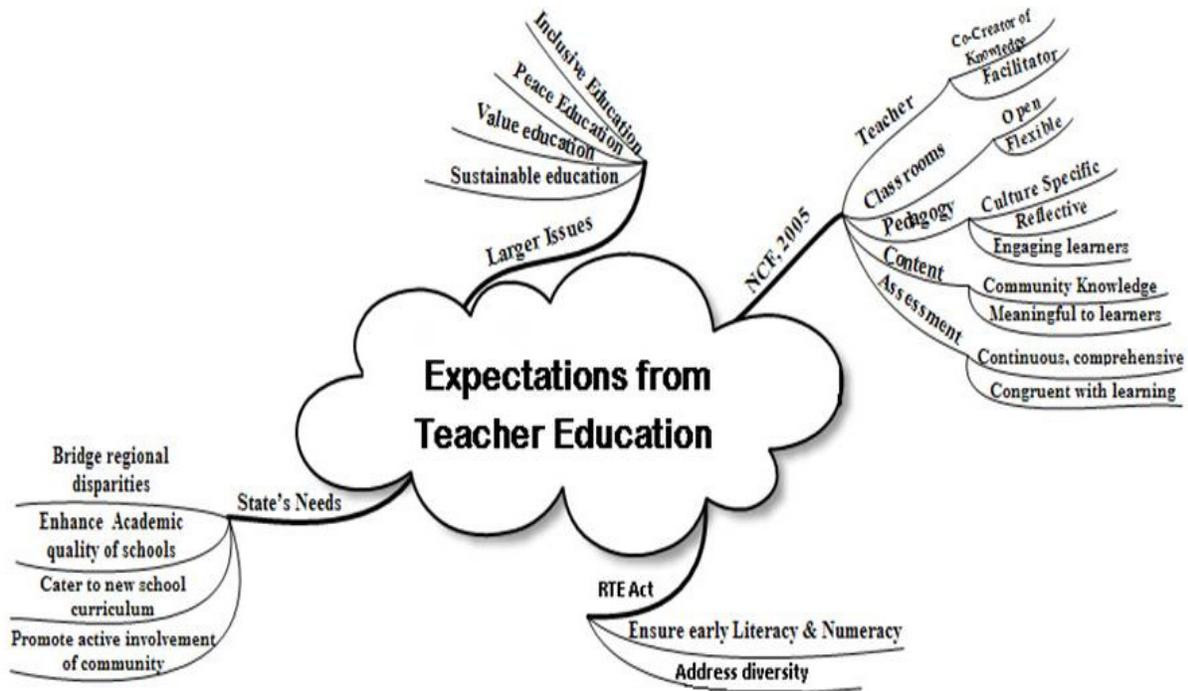
At a Global level

Much more significant than these academic, cultural and social issues are those related to ecological issues of global warming, climate change and sustainable development. For education sector to continue to ignore these would imperil future generations, as they are issues of human survival.

Then there are the other global concerns:

- Peace – In an increasingly violent society, teachers don the role of social healers. As the position paper on Education for Peace (NCERT, 2006) points out this perspective can humanize education
- Child Rights – The Rights perspective has been brought centre stage thanks to global bodies like World Bank and United Nations. This is the genesis of RtE Act
- Inclusive Education also derives from Rights perspective. It is important to reiterate that inclusion goes beyond reaching out to children with disabilities. It calls for socio cultural and linguistic inclusion, of which gender sensitivity plays a very significant role
- Value education has traditionally been in focus in our country. It is the ironical to see our society ridden with inconsistencies, scant disregard for rules and laws among its average citizenry (especially the educated ones), intense competitiveness, mongering for power and wealth. It is time we take cognizance of these anomalies and make value integral to the whole process of education as recommended by the Position Paper on Aims of Education (NCERT, 2006).

The expectations from teacher education arising out of these concerns and issues, as enumerated in this section, are captured in the graphic below:



If teacher education has to rise to these expectations, and not be considered as “the most challenging sector” for systemic reforms it is both imperative and urgent to bring in vibrancy into the sector. It does not entail so much overhauling the content of the curriculum as in re-envisioning the entire process.

6. Premise, Principles and Goals of Elementary Teacher Education

The basic premise of teacher education rests upon the needs and requirements of school education, which in turn draws from societal and environmental needs and issues.

Based on this premise, the broad principles of teacher education would be:

- Conceptualising pre-service and in-service elementary teacher education programmes in a continuum and complementing each other. D.Ed course would be a crucial entry point and a space for preparing prospective teachers, and not merely a certification requirement to become a teacher
- Positing teacher development programme as a reflective process involving meta-cognitive tasks to equip teachers to become thinking professionals. Teachers need to work in complex environments, facing multiplicity of situations and diverse contexts. Moreover, teaching and learning by themselves are complex processes. No single programme can empower a teacher to deal with all these complexities, if a prescriptive approach is taken
- Drawing from adult learning theories, situated cognition, sociological and anthropological perspectives on learning for designing implementing strategies. A teacher's learning has to be seen as an active and constructive process that is problem oriented, grounded in social settings and circumstances and taking place throughout a teacher's life. This would mean teachers take responsibility for their own learning and actions to ensure their proactive participation in schools
- Incorporating sensitivity towards and appreciation of diversities among student teachers. These diversities relate to: children from diverse backgrounds; diverse learning contexts in which teacher has to function; and diversity of learning spaces and resources

- Making inclusion a principled process that not only promotes participation but also opposes all forms of exclusion. A liberal, humanistic teacher education programme would enable putting inclusive values into action in education that should eventually percolate into society. Inclusive values are concerned with equality, rights, respect for diversity, sustainability, trust, compassion, honesty, courage and joy.
- Ensuring a holistic education wherein a learner is considered as an active, creative and aspiring human being. It values experiential learning, promotes co-operation and partnerships, takes existential concerns seriously, and makes meaningful connections to the world of nature. It directly addresses ecological and sustainable development issues

The goals of pre-service elementary teacher education in the light of these principles would be:

- To prepare teachers who:
 - respect the learning needs of **all** children and cater to them
 - help children gain confidence and challenge them to do better
 - know their subject well and proficient in the language of instruction
 - are reflective practitioners
- To be vibrant and flexible to meet diverse needs in diverse contexts
- To take a pro-active role in systemic reforms in education
- To create synergy with schools and institutes of higher learning

With these goals rooted firmly, the probable outcomes of pre-service elementary teacher education programme would be to:

1. Create a professional identity among student teachers positioning teacher as a change agent

2. Assist student teachers to develop their own praxis by linking theory along with field experiences in real contexts
3. Promote self learning and independent thinking by consciously moving away from 'implementation' mode to 'creation' mode
4. Provide student teachers with time and opportunities to reflect to help them reconstruct their experiences
5. Ensure student teachers attain a sound knowledge base and proficiency in language
6. Promote a view of learning as a search for meaning out of multiple experiences
7. Engage student teachers in analysing school curriculum and text books with respect to societal needs and children's personal needs
8. Learn to use textbooks as a pretext for organising meaningful learning experiences within and outside classrooms to help children construct their knowledge
9. Prepare student teachers to care for children, enjoy being with them and being sensitive to their problems and needs
10. Equip student teachers to forge links between school and community
11. Build capacities of student teachers to tap into a variety of learning sites and create a range of resources catering to diverse groups of learners
12. Help student teachers question their own prejudices and dogmas in a non threatening atmosphere
13. Sensitise student teachers to recognise inclusive classrooms with social, cultural and linguistic diversity as a strength and resource
14. Train student teachers in alternative pedagogical skills and classroom management techniques that would promote a culture of peace in classrooms
15. Impart principles of sustainable development to student teachers and foster positive attitudes and values towards environment
16. Guide student teachers towards commitment to the profession and its ethical code of conduct

These outcomes would imply a meaningfully integrated curriculum that would provide student teachers with a robust knowledge base and professional capabilities that would empower them to deal with multiplicity of situations and contexts.

7. Pointers for implementation

The main aspects of a PSTE programme are:

- Essential conceptual knowledge and capabilities that prospective teachers have to be equipped with
- Mode of transaction to be followed
- Field experiences and internship
- Assessment systems and criteria to evaluate student teachers and TEIs

To realise the multifaceted goals envisaged, pointers for implementation are suggested for each of these aspects.

Essential knowledge and capabilities

- A broad based, interdisciplinary knowledge would be required. It means not having a packed curriculum with fragmentary bits of knowledge but an integrated conceptual knowledge that aims at synthesis. This would mean an understanding of:
 - The aims of school education
 - Subject content
 - Nature of the subject
 - Pedagogic principles
 - Formative assessment techniques
 - The processes of children's learning
 - The social, cultural and linguistic backgrounds of children
 - Principles of sustainable development

In addition, an awareness of society's needs and requirements and developing a critical awareness of social prejudices and of one's own prejudices is needed.

- Theoretical inputs are to be strengthened and updated. Connections between academic knowledge, concepts and ground realities are to be explicitly made. Student teachers must be encouraged to posit theories in context and draw from them to help understand their needs and requirements of children and plan for learning experiences.
- Language proficiency is a must. Time and efforts have to be factored into the D.Ed programme to strengthen both English and regional language. This would entail designing effective course work and suitably trained faculty.
- Student teachers must be equipped to use local resources and create meaningful resources. The narrow conception of TLMs has to give way to a broadened conceptualization of resources to meet the needs of diverse learners and to make learning meaningful.

Mode of transaction

- An integrated pedagogical content knowledge as an implementation strategy would equip student teachers with a deeper and more meaningful understanding of content alongside pedagogy and the larger understanding of the nature of that knowledge. This approach would also focus on how children acquire key concepts; an understanding of children's misconceptions/alternate conceptions and how they arise; and how children's learning progresses in a subject.
- For inculcating values, dispositions and skills needed to make classrooms inclusive classrooms and for promoting peace- arts education, work education and heritage crafts would play central roles. These should permeate across the D.Ed course.

The National Focus Group's position paper on Heritage Crafts (NCERT, 2006) points out that craft can teach a variety of life skills and tap into local/indigenous knowledge. The paper has suggested that heritage crafts should not be taught as a separate subject but integrated with social science/EVS. The paper envisages crafts to be a powerful tool of emotional, economic and intellectual empowerment of all learners. Productive work has immense pedagogical value. NCF, 2005 states that work can "serve to enable children to learn values, basic scientific concepts, skills and creative expression." Further, posting productive work within the curriculum would promote critical thinking, creativity, transfer of learning, communication skills, aesthetic sense, and work ethics. Needless to say, this idea goes much beyond the current SUPW. For a detailed note on the role of arts in actualizing the aims of education, see annexure 2.

- If reflective practice is to be the core of teacher education and bringing out thinking professionals the foremost outcome, then processes followed in PSTE classes must mirror the principles student teachers are expected to imbue. These must be contextual, and appropriate for young adult learners. Student teachers are to be provided with many opportunities to learn, unlearn and relearn in a non-threatening ambience. They must be given space and time for reflections and addressing their own prejudices and beliefs. In a teacher education programme geared towards reflective thinking, teacher educators are to elicit rather than inform.
- Teacher educators are to judiciously integrate andragogy and pedagogy. An interactive and participatory approach needs to be adopted. Teacher educators have to develop explanations and justifications along with student teachers and not lecture to them. Student teachers have to be facilitated to meaningfully integrate these into their own knowledge base. Teacher educators are to provide variegated experiences. Lively, experiential learning experiences can be provided through projects which lead to meaningful, integrated learning (An example is provided in annexure 3).

A wide repertoire of good quality materials have to be developed/translated to break the present culture of using only textbooks.

Field experiences and Internship

- Field experiences must be integral to the course. Each theory paper need to have field experiences built into it. These experiences would form the crucial link between theory and practice. Theoretical inputs and field experiences must flow into each other organically. Time and opportunities must be created for student teachers to reflect upon the field experiences and make meaning for themselves.
- A sustained period of internship would provide student teachers the crucial space to validate their learning on the ground. It should help them to strengthen their conceptual understandings, gain practical insights and opportunities for reflections. Internship period must also be utilised as an opportunity for strengthening and deepening professional associations among teacher educators, school teachers and student teachers for the mutual benefit of both schools and D.Ed colleges. Both teacher educators and school teachers must give time to student teachers to guide them and help them reflect during this period

Assessment and Evaluation of student teachers and TEIs

- Assessments and evaluation of student teachers needs to reflect the varied goals. Multiple modes of assessments need to be evolved to make evaluation comprehensive. This would mean not only assessing conceptual and pedagogical dimensions but also values, dispositions and skills.
- Formative assessment of student teachers should be adopted. Assessment and evaluation data must be used to enhance student teachers' competence and not merely for the purposes of grading/certification. The mechanisms for gathering, consolidating and disseminating assessment data to be fair and transparent.

- A system of evaluating ETEIs may also be considered. Self evaluation formats akin to the ones designed by NAAC for B.Ed colleges can be designed. Validation and monitoring can be done by DSERT/DIETs.

Institutional Mechanisms

- Teacher education institutions should provide space for student teachers to experiment, innovate and evolve into professionals committed to organising classroom experiences of equitable quality. Student teachers also need to observe schools and children for extended periods of time. To make internship more meaningful, teachers must be co-opted more actively. Linkages between ETEI's and schools need to be strengthened and synergy promoted. (A small experiment on promoting D.Ed college-school synergy is reported in Annexure 4).
- ETEIs to network with BRCs/CRCs; University Education Departments; and organizations working in the elementary education sector.
- Teacher educators have to be equipped to implement this revisioned teacher education programme. Academic forums of teacher educators to be established. Platforms where school teachers and teacher educators can come together for mutual learning need to be created.

Making pre-service teacher education programme robust and by bringing in vibrancy into the teacher education sector, the course should be able to attract the best of minds. After all, education is an exciting discipline and few professions can offer the kind of satisfaction that teaching profession brings .

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Appendix 1

Karnataka Jnana Aayoga (*Karnataka Knowledge Commission*)

Pre-Service Elementary Teacher Education in Karnataka: A Status Study

Mythili R, RV Educational Consortium

Executive Summary

Research focusing exclusively in the area of pre-service elementary education is very sparse. Even such research as there are, have not contributed towards formation of policies or even planning in the sector. In this context, the Karnataka Knowledge Commission entrusted RV Educational Consortium with the task of conducting an in-depth study of status of D.Ed colleges across Karnataka.

The objectives of the present study are:

1. To document the infrastructure of D.Ed colleges in Karnataka in terms of-
 - 1.1 Physical resources
 - 1.2 Academic resources
 - 1.3 Human resources
2. To ascertain the level of understanding of teacher educators in terms of their-
 - 2.1 Subject knowledge in Mathematics, Science & Social Science
 - 2.2 Pedagogical knowledge vis-à-vis Nali Kali, & NCF, 2005
 - 2.3 Clarity of goals with respect to knowledge, skills & dispositions that they have to impart to their students
3. To capture classroom practices in terms of teacher educators'-
 - 3.1 Planning
 - 3.2 Structure of delivery
 - 3.3 Interaction with students
 - 3.4 Use of assessment techniques

Being conceived primarily to analyse the prevailing situation of D.Ed colleges in Karnataka, a participative survey method was adopted. D.Ed Colleges from the four educational divisions were selected, based on the proportion of colleges in each division. A stratified random sampling technique was used to ensure proportional representation of Government, Aided and Unaided colleges. The sample comprised of 108 D.Ed colleges, 600 teacher educators and 983 students teachers. The study used both

quantitative and qualitative data which were captured through a set of seven data forms.

The study's major findings are:

- 20 colleges among the sample chosen had closed down
- Colleges studied have adequate infrastructure
- 65% of student teachers enrolled are girls
- A majority of student teachers (41.7%) in the D.Ed colleges belong to the 'OBC' category. Next come student teachers from Scheduled Caste forming 26.4% of the sample
- Overwhelming 71.4% of student teachers come from families whose combined annual income is between Rs.6,000-Rs.12,000/-
- 78% of student teachers are from arts stream
- A majority of teacher educators (63.5%) are male
- The average age of all the teacher educators is 37.4 years
- Very few teacher educators (15%) have experience in teaching in primary schools
- Teacher educators in our sample have attended an average of 2.5 training programmes in their entire career
- Teacher educators performed rather poorly in an assessment to gauge their readiness for implementing reforms in school education mooted by NCF, 2005
- Physical environment in all the classrooms in D.Ed colleges were conducive for lecturing
- In all 147 D.Ed classrooms observed, lectures were predominant
- All student teachers complained about excessive written work
- Teacher educators find the curriculum to be too heavy for two years
- Many teacher educators complained of shortage of time for content enrichment

Appendix 2

Arts Education: Mediating between the Professional and Humane Teacher

Anmol Vellani, Executive Director, India Foundation for the Arts (IFA)
Aruna Krishnamurthy, Programme Executive, Arts Education, IFA

The “Aims of Education” position paper by NCERT emphasizes that “education should be a liberating process” and that the curriculum should promote three key areas of development in the student: one, it should aid in the self-development of the individual through an exposure to the right set of values, two, it should impart sound knowledge in “constructivist” ways, and three, it should foster a sense of curiosity and excitement about learning. While these broad goals form the backbone of the curriculum, the position paper also lays down specifics on how to build a programme to address the above needs. Some of the key points are:

1. Closing the gap between the experience of the school and the everyday, lived reality of the student.
2. Imparting value-based education that emphasizes tolerance and caring for others
3. Awareness of cultural diversity and intercultural connectedness

To support these and other related areas, the NCERT recommends pedagogic approach where the teacher leads by example (thus calling for a teacher training programme that would connect the teacher to the above mandate), where teaching is based on “conversational,” rather than “authoritarian” modes, and connected with the “natural” environment of teachers and learners.

If cultural diversity, value education, and localization of knowledge represent the main work of an educational system, and if the implementation is envisaged along a participatory and process-oriented approach, it is important to recognize the centrality of arts education in actualizing these aims of education. Within the space of the classroom the arts can address gaps in curriculum, pedagogy, and the imagination that emerge from the putative “banking concept” of education with its hierarchical and unilateral dispensing of information. For example, the official report on “Nali-Kali,” the state-sponsored art education program, has remarked upon the transformative effect of introducing arts into the classroom, where “[t]he relationship between the Deputy

Project Coordinator, District Project Office, the teachers and the Resource Persons appeared devoid of a fear of hierarchy – a feeling that the boss had come for inspection did not seem to exist.” In the Kali-Kalisku (IFA administered arts education teacher training project) community as well, teacher testimonials have consistently emphasized the mediating role the arts have played in addressing complex issues in students’ lives: in one example, a simple art exercise of mapping village streets allowed a child to address his everyday reality of living in an impoverished neighbourhood . But over and beyond the democratizing effect, the arts have advanced ethical values by tapping into the aesthetic and imaginative capacities of subjects. The opening up of fixed and fast-frozen sensibilities – of the teacher, students and the community at large – to the arts for personal enrichment has a direct correspondence with the dismantling of fixed and internalized ideological (dis)positions that foreclose the experience of cultural and social diversity within and outside the classroom.

The “Aims of Education” paper uses the idea of cultural diversity as a conduit to an awareness of a pluralistic world, when it says, “[t]o respect and do justice to others is also to respect and do justice to their respective cultures or communities.” At the same time, it issues a call for an education that nourishes the child’s capacities. Here too, the arts have a central significance in bridging the gap between the self-actualization and social responsibility. Curriculums make little if any reference to the world the child inhabits. In the classroom the child lives in a bubble with his/her eyes shut to whatever might be part of his/her immediate experience. The (subliminal) message that the child gets is that nothing of value can be derived from the world in which s/he has grown up. The message is that this world, which has hitherto been his/her source of identity, must be discarded if s/he is to make his/her way in the world and make the most of the fruits of education.

An arts-in-education methodology can counteract this influence that the education system has on the child by strengthening or reinforcing his/her connection to lived experience. This it can do in two ways:

1. Enabling the child to be creative by drawing upon local sources – materials and forms of cultural expression – in the classroom;
2. Guiding the child to imaginatively interpret or represent the reality that s/he experiences, which indeed is the purpose of much of artistic Endeavour.

The arts in education, instead of positioning the child as a passive recipient of information and knowledge which finds no points of reference in his/her own lived reality – as education in India generally does – positions the child as an active and

autonomous subject who investigates his/her reality and exercises his/her imaginative capacities on what s/he has an immediate connection to.

The arts in this way can help growing children to find their own voice instead of speaking in a borrowed voice that the system legitimizes or enforces. It is thus that children may grow into agents who are empowered in the relevant sense, who will be able make decisions about their future informed by their full awareness of natural or founding associations and affiliations, a full consciousness of the values and meanings inscribed in the place from which they come. Put another way, the intervention of the arts in education can promote cultural diversity, counteracting Indian education's centralized way of defining what a child must learn and how the child must learn. This is how arts education can become a force for diversity, where diversity is understood as committed to accommodating contending interests, positions, preferences and perspectives, or ensuring a level playing field for rival conceptions of the meaningful or worthwhile.

Interestingly, arts education appears as a junction point for a variety of national-level discourses on curricular frameworks (NCF), teacher training programme (NCFTE), teacher education recommendations (NCTE) and more, especially in its ability to offer a vital link between the vision statement and actual implementation strategies in teacher training curricula as well as classrooms. It is in recognition of this dialogic relationship between the classroom and society that the NCERT has issued a call for "innovative pedagogies [that are] to be grounded not just in learning new games, songs and activities but developing in the teacher a conceptual and lived understanding of all that experiential knowledge and learning has to offer." To create an environment that can successfully implement the aims of education, it is the teacher who has to be trained in both the ideals of cultural diversity and its implementation strategies first. It is exactly to address the sensitization of the teacher to the idea of a "multiverse," and to instill a participatory, activity-based classroom practice that IFA launched its arts education project, Kali-Kalisu, where five hundred in-service teachers received training in five forms of art over a course of three years. Kali-Kalisu aimed to inculcate the habits of self-reflection/ self-criticism, collaborative learning, social sensitivity, spirit of inquiry and broader commitment to the profession. Following the Kali-Kalisu model, and incorporating a diversity of cultural materials within its content, an Activity-Based Arts Education Curriculum may approach teacher training through the following itinerary:

Visual Art Education as a means of communication and expression through a visual language. Visual arts can be used within pedagogies as an expressive, knowledge transferring, explorable and experiential form of learning. Visual art in education is a necessary pedagogical tool that needs to be developed and understood by the learner and teacher as a language system to enable both articulation and expression of their inner thoughts and feelings. Activities include observing everyday visual elements around us, exploring visual sensations e.g. colour, line, form, texture etc., understanding different ways of seeing the world, sight and spatial relationships and visual aesthetics.

Music Education that would function as a bonding mechanism in the classroom, and enhances the communication between teachers and students. Music is also an aural experience--the listening session will facilitate an aural experience of different genres of music, instruments, their textures, emotions and characteristics in the light of their cultural, social contexts . Music as a visual experience allows 'seeing' through music. By observing everyday sounds around us. Activities include exploring sounds through the body - tapping, clapping, stomping, patting, whispering, shouting etc., understanding the potential of the voice, understanding types of sounds - Noise and Music, Speech and Song, Melody and Rhythm.

Movement Arts as a creative expression of the self that facilitates creative and critical thinking abilities through the integration of the developing mind & body in the context of cultural practices. Activities include connecting an element of movement to a feeling, using simple skills to create a dance piece, perform in front of others, team work, making decisions and executing tasks together.

Theatre as a group experience, facilitating processes of learning by which individuals and groups learn about the interconnectedness between their own individual selves, the group, and society as a whole. The insights that are generated through these processes will inform an individual teacher's practice in diverse contexts. The main focus of the theater is to uncover, and hone, the inherent potential in the teacher to adapt this learning to her own specific context, to become an innovator herself . There are two broad aims of drama for education: one, student-teachers use drama processes as tools for examining themselves and their context, thus generating new knowledge and understanding, and two, to train, and through training enhance some theatre skills that will later help them be creative and enlightened teachers. Activities include games, planned and structured drama exploration exercises designed to first experience and then, deepen social awareness of students, making short plays.

Appendix 3

Paper presented in a Seminar on Teacher Education

An integrated learning through Project Approach for student teachers

Mythili .R & Sunil Kumar A

VidyaShilpa Project

Karnataka Education Network

RVEC, Bangalore 560011

Background

VidyaShilpa, the programme to address the needs of pre-service teacher education at the elementary level (D. Ed) in Karnataka is currently being implemented by Karnataka Education Network (KEN) and supported by Navajbai Ratan Tata Trust, Mumbai.

KEN-The Karnataka Education Network is a synergetic network of six organisations. Of these three namely- Dhvani, RV Educational Consortium (RVEC) and Volunteers in Service to Education in India (VSEI) have been involved in this project work. Each organization has an independent existence other than as part of KEN and are involved in various project/programmes and activities on an individual basis. Some of us also have bilateral co-operative programmes.

The Project

Student teachers from two D. Ed colleges of Bangalore were engaged in a project on 'Paper'. The project was conceptualized to provide student teachers hands-on experience in integrated and holistic learning.

Why Project?

To gain first-hand experience on collaborative and peer learning.

Why Paper?

We chose paper as the theme since student teachers use reams of paper during their 2-year course.

For whom?

Two D. Ed colleges of Bangalore that receive grant-in-aid are involved. 55 Student teachers in second year attended the programme.

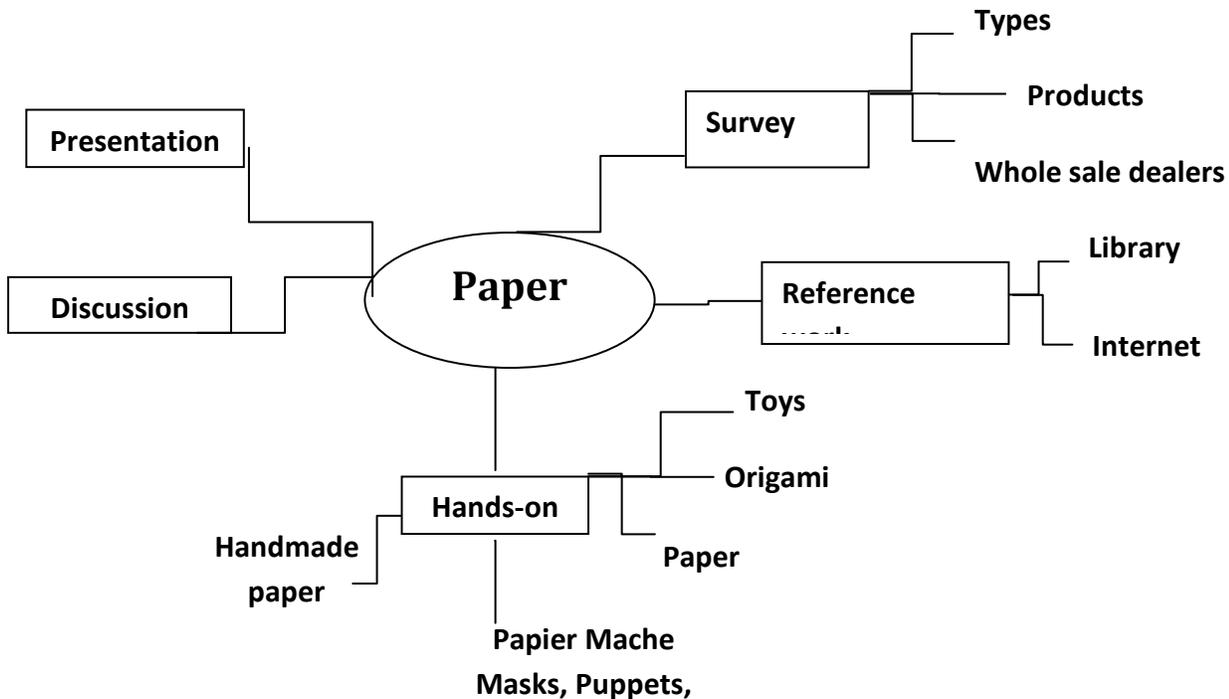
How long?

The paper project was a three month project. The workshops were held every Friday from 2pm to 5pm, except during holidays and vacation. Started in the month of September, 2010 and final showcasing of the project work was held on 27th November, 2010. The showcasing was a grand affair. Both Student teachers and teacher educators learnt a lot in terms of planning and organizing such events.

Objectives of the Project:

- To build the capacity of student teachers vis-à-vis their knowledge, skills and dispositions.
- To provide an opportunity for experiential learning
- To help student teachers plan for integrated learning

Planning



Through these activities Student Teachers learnt concepts like stability and strength, force and pressure, shapes and movement in Science; measurement, angles and triangles, patterns and mensuration in Mathematics; creative writing and oral expression in languages; values like conservation and environmental awareness.

Project Work

Survey

The Project began with a survey by the student teachers. They conducted the survey in the local wholesale market about the different types of paper, use and availability and samples were purchased. Prior to the survey, two members of KEN visited the shops and prepared a questionnaire. The survey exposed them to varied skills such as

planning in terms of the places to go to, questions that they needed to ask and also thinking about what data could be collected and how it could be presented.

Reference work:

In order to give student teachers an experience in sourcing information, they were provided with different genres of reading materials that included books and articles. They were also assisted in surfing the Internet.

Hands-on Sessions

- Experts were invited to guide the student teachers to make handmade paper from paper pulp, Papier Mache masks and puppets. Student teachers were also exposed to a video showing the process of paper making and the technology related to it.
- Student teachers wrote poems on paper. A panel of poets whetted their poems and gave suggestions on poetry writing. A 'Kavi Sammelan' was held.
- A session on learning Mathematics concepts through Origami was held
- Student teachers created resources for teaching learning in English, Science, Mathematics and Social science
- Student teachers created scripts for Kannada and English skits to make use of puppets and masks they created

Field trips

Student teachers were taken on a field trip to a rural school that had taken up paper as one of its topics for project based learning and to a packaging industry. The purpose of taking student teachers to the school was to expose them to how children learn through projects. At packaging industry they saw the process involved in converting raw paper to corrugated paper and then to cartons.

Guided reflection

After each event such as survey, field trips, sessions with experts, and final showcasing, student teachers were provided with time and opportunity to reflect on the event. They were encouraged to share their observation, ask questions and put facts, ideas, and experiences together. KEN members also shared their views on pertinent issues during this time.

Preparation for the Showcasing of Paper Project

A day before the event on 26th November, 2010, Student teachers of both the colleges and the KEN members (RV-VSEI and Dhvani) put their heart and soul in giving final touches to the resources and the exhibits for the big event. Students rehearsed Kannada and English skits. Preparation started in the morning and went late into the evening. All

the exhibits for various stalls were given final touches. Student teachers actively participated in planning and organizing the event.

Final showcase of 'Paper Project'

Student teachers and teacher educators of neighboring colleges were invited for the showcasing. The event started with a power point presentation of all the activities they did during the project period. Student teachers then enacted the Kannada skit (Kannada version of Pied Piper) and the English skit (The little Red Hen) using the props they prepared. An exhibition was also setup. Paper pulp making and making of hand made paper was demonstrated. Paper resources for various subjects such as Maths, Social science and science were exhibited. Other stalls included crafts created by student teachers and survey details and samples of various kinds of paper they procured from the market. Student teachers gave detailed explanations of all exhibits to the visitors. Teacher educators, student teachers of other D.Ed colleges; teachers of neighboring schools; and education department functionaries attended the presentation.

Concluding remarks

Project based learning had a tremendous impact on student teachers. It opened up a number of possibilities for them in terms of learning and showcasing their learning. It also gave them realistic experience on collaborative and peer learning. This also provided a platform for student teachers to tap into their creativity.

- Student teachers unanimously reported that the project gave them innovative ideas on creating resources by using paper
- Teamwork was extremely successful
- Hands-on experience integrated learning was highly valued

Our gratitude to Ms. Brinda Rao, Managing trustee, VSEI-India and Mr. Shivvananda Hombal Managing trustee, Dhvani for their help with this paper.

Appendix 4

D.Ed colleges-Schools Synergy

RV Educational Consortium & DSERT

Project Summary

Mythili. R

Synergy between D.Ed colleges and their neighbouring schools needs improvement and has so far not been addressed.

The D.Ed course mandates student teachers to undergo practice teaching and internship. This ensures regular contact between the D.Ed colleges and neighbouring

primary schools. This is a potential space for students to gain practical insights and augment/refute their theoretical knowledge as well as for colleges and schools to forge a synergetic relationship between themselves, to better serve the prospective teachers. In this context RVEC undertook a project, as part of Karnataka Education Network, in collaboration with DSERT.

The purpose of the project was two-fold.

One was to help strengthen practice teaching/internship and the other was to use this as a space for promoting synergy among D.Ed colleges and neighbouring schools.

Accordingly, the objectives were:

1. To identify the level of engagement that exists among the select D.Ed colleges and their neighbouring schools during practice teaching/internship
2. To ascertain the perception of stakeholders (teacher educators; primary school teachers; student teachers; school students and Department officials) regarding practice teaching/internship
3. To suggest steps to promote a synergetic relationship among D.Ed colleges and schools that they cater to
4. To come up with a set of recommendations to promote synergy between D.Ed colleges and schools.

A series of activities were taken up as part of this project to strengthen synergy between three D.Ed colleges and their practicing schools. These include:

- A Study of the three participating colleges and their neighbouring schools
- Periodic engagement with stakeholders during practice teaching and internship, over a period of one year
- Initiating steps to strengthen internship programme
- Consultations with domain experts

The study was able to ascertain the perceptions of stakeholders vis-à-vis practice teaching/internship. Teacher educators and student teachers' needs were identified. Consultations with stakeholders and domain experts yielded many useful

suggestions. A set of guidelines for strengthening D.Ed college-School synergy was evolved based on the project experiences.

Suggestions emanating from the project include:

- Ensuring adequate preparation and time is given to student teachers before they handle classes
- A good rapport between teacher educators and school teachers would help in preparing student teachers better to face classrooms
- Adequate time must be provided for strengthening specific areas wherein student teachers find difficulty
- Enough time for meaningful feedback and reflections has to be given to student teachers, both during practice teaching and internship
- Reducing the number of lessons student teachers have to teach
- Rigid lesson plan formats have to give way to flexible plans that need to be constantly revisited. Teachers have to be co-opted while planning
- DIETS to don a more proactive role in ensuring meaningful communication between colleges and schools
- DIETs to orient teacher educators and school teachers together, to help conduct reflective feedback sessions with student teachers
- CRPs and BRPs help can be solicited by DIETs to monitor practice teaching/internship
- DSERT to orient DIET faculty and co-ordination board members towards effective practice teaching/internship practices