

Facilitating the Learner A Position Paper

*Karnataka D.Ed Curriculum Framework
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1. Facilitating the Learner

In any teaching learning context, learner is most important. The entire objective of education is to facilitate the learner and to produce a human resource which is going to be productive for any country. Therefore, facilitating the learner is one of the important responsibilities of the schooling process. In this context, the most important thing is understanding the learner, in understanding how a learner learns, all issues related to the learner become important. Currently, it has been discussed and debated adequately that the learner is not to be understood as a passive recipient of knowledge but he or she is an active partner in the process of constructing one's own knowledge. Hence knowledge is something which is constructed by the learner herself or himself. This is the essence of constructivism. Teacher preparation programme at the elementary level needs to focus on this. The current thinking about learning and enhancing the learning levels of learners, proposes interdisciplinary and multidisciplinary approaches. The other most important thing to be focused under facilitating the learner is to understand how community resources could be put to the best use. With all the above, it also becomes important to picture rise a versatile teacher who could stimulate and develop a personality in learners which is socially relevant and functionally important. Such versatile teachers need to know different principles of pedagogy. All the above concerns are discussed in the present position paper.

1. Understanding the Learner:

1.1 Background: Learner brings time and his experiences (whatever little) as resource to the school and classrooms. All learners come from different backgrounds, with cultures, and beliefs and different. It is the school, which is expected to develop needed adequacies, competencies, attitudes and values, thus enabling them to grow into

healthy and productive citizens. In this context, it becomes important for a teacher to understand all learners as unique entities, with their own strengths and weaknesses. Put together, learners make themselves unique. The teacher needs to understand this and provide opportunities and experiences by design. The ultimate objective of the teacher is to make all learners understand their own potentialities, become autonomous learners and become capable of taking independent decisions. This in turn will prepare them to become independent in life. Thus, customizing learning opportunities and experiences becomes an important professional obligation and responsibility of a teacher. For this to effectively happen, understanding every single learner becomes important. Man is an eternal learner. Learning takes place from birth and goes on till death. All human beings irrespective of whether one goes to school or not, learns something in life and proceeds in one's own direction. Learning in a school context enables a learner to maximise the rate of maturation. Therefore, it is said that education acts as a catalyst.

Education is a subset of social reality and the education process is an artificially contrived reality. Everything in an educational process is man made. What happens in the name of education is a set of activities planned, prepared and executed by school, inside and outside the classrooms. Since educational process is man made, there is a need for us to be careful and planful in doing things in the name of education. Though the school designs activities, if learners are not taken into confidence before the learning activity begins, there is less possibility that learners will participate and enjoy the process of learning. Any new learning is painful unless the learner is willing to learn. Therefore learners are to be understood and then learning opportunities and experiences need to be provided which is interesting as well as developmentally appropriate. For this to happen understanding learner becomes important.

While discussing issues related to the learner and learning, some of the excerpts of the National Curriculum Framework, 2005 (NCF 2005) become relevant, which need a special mention. It highlights the primacy of the active learner. It talks about child-centred pedagogy, which primarily focuses on giving primacy to children's experiences, their voices and the active participation. It holds the view “Our school pedagogic

practices, learning tasks and the texts we create for learners tend to focus on the socialisation of children and on the 'receptive' features of the children's learning. Instead, we need to nurture and build on their active and creative capabilities – their inherent interest in making meaning, in relating to the world in 'real' ways through acting on it and creating, and in relating to other humans. Learning is active and social in its character.' For such a thing to happen there has to be a shift in the understanding of the learners, learning and teaching. This requires a very different approach and readiness on the part of the teaching system.

The NCF (2005) also argues that the 'children's voices and experiences do not find expression in the classroom. Often the only voice heard is that of the teacher. When children speak, they are usually not only answering the teacher's questions or repeating the teacher's words. They rarely do things nor do they have opportunities to take initiative. The curriculum must enable children to find their voices, nurture their curiosity -- to do things, to ask questions and to pursue investigations sharing and integrating their experiences with school knowledge -- rather than their ability to reproduce textual knowledge.....Reorienting the curriculum to this end must be among our highest priorities, informing the preparation of teachers, the annual plans of schools, the design of textbooks, learning materials and teaching plans, and evaluation and examination patterns.

Children will learn only in an atmosphere where they feel they are valued. Our schools still do not convey this to *all* children. The Association of learning with fear, discipline and stress, rather than enjoyment and satisfaction, is detrimental to learning. Our children need to feel that each one of them, their homes, communities, languages and cultures, are valuable as resources for experience to be analysed and enquired into at school; that their diverse capabilities are accepted; that all of them have the ability and the right to learn and to access knowledge and skills; and that adult society regards them as capable of the best.”

Cognition involves the capacity to make sense of the self and the world, through action and language. Meaningful learning is a generative process of representing and

manipulating concrete things and mental representations, rather than storage and retrieval of information. Thinking, language (verbal or sign) and doing things are thus intimately inter-twined. This is a process that begins in infancy, and develops through independent and mediated activities. Initially, children are cognitively oriented to the here and now, able to reason and act logically on concrete experiences. As their linguistic capabilities and their ability to work in the company of others develop, it opens up possibilities of more complex reasoning in tasks that involve an abstraction, planning and dealing with ends that are not in view. There is an overall increase in the capability of working with the hypothetical, and reasoning in the world of the possible.

Conceptual development is thus a continuous process of deepening and enriching connections and acquiring new layers of meaning. As children's meta-cognitive capabilities develop, they become more aware of their own beliefs and capable of regulating their own learning.

- All children are naturally motivated to learn and are capable of learning.
- Making meaning and developing the capacity for abstract thinking, reflection and work are the most important aspects of learning.
- Children learn in a variety of ways -- through experience, making and doing things, experimentation, reading, discussion, asking, listening, thinking and reflecting, and expressing oneself in speech, movement or writing -- both individually and with others. They require opportunities of all these kinds in the course of their development.
- Teaching something before the child is cognitively ready takes away from learning it at a later stage. Children may 'remember' many facts but they may not understand them or be able to relate them to the world around them.
- Learning takes place both within school and outside school. Learning is enriched if the two arenas interact with each other. Art and work provide opportunities for holistic learning that is rich in tacit and aesthetic components. Such experiences are essential for linguistically known things, especially in moral and ethical matters, to be learnt through direct experience, and integrated into life.

- Learning must be paced so that it allows learners to engage with concepts and deepen understanding, rather than remembering only to forget after examinations. At the same time learning must provide variety and challenge, and be interesting and engaging. Boredom is a sign that the task may have become mechanically repetitive for the child and of little cognitive value.
- Learning can take place with or without mediation. In the case of the latter, the social context and interactions, especially with those who are capable, provide avenues for learners to work at cognitive levels above their own.”

Dwelling on inclusive environments, NCF asserts that “A student with a disability has an equal right to membership of the same group as all other students. Differences between students must be viewed as resources for supporting learning rather than as a problem. Inclusion in education is one of the components of inclusion in society. Schools, therefore have a responsibility of providing a flexible curriculum that is accessible to all students..... Teaching and learning processes in the classroom should be planned to respond to the diverse needs of students. Teachers can explore positive strategies for providing education to all children, including those perceived as having disabilities. This can be achieved in collaboration with fellow teachers or with organisations outside the school.”

Discussing the implications for curriculum and practice, NCF (2005) says, “Learners actively construct their own knowledge by connecting new ideas to existing ideas on the basis of materials/ activities presented to them (experience). ... The structuring and restructuring of ideas are essential features as the learners progress in learning. Construction indicates that each learner individually and the socially constructs meaning as he/she learns. Constructing meaning is learning. The constructivist perspective provides strategies for promoting learning by all.

The teacher's own role in children's cognition could be enhanced if they assume a more active role in relation to the process of knowledge construction in which children are engaged. A child constructs her/his knowledge while engaged in the process of

learning. Allowing children to ask questions that require them to relate what they are learning in school to things happening outside, encouraging children to answer in their own words and from their own experiences, rather than simply memorising and getting answers right just one way -- all these are small but important steps in helping children develop their understanding. Intelligent guessing must be encouraged as a pedagogic tool. Quite often, children have an idea arising from their everyday experiences, or because of their exposure to the media, but they are not quite ready to articulate it in ways that a teacher might appreciate. It is in this 'zone' between what you know and what you almost know that new knowledge is constructed. Such knowledge often takes the form of skills, which are cultivated outside the school, at home or in the community. All such forms of knowledge and skills must be respected. A sensitive and informed teacher is aware of this and is able to engage children through well chosen talks and questions, so that they are able to realise the developmental potential.

Active engagement involves enquiry, exploration, questioning, debates, application and reflection, leading to theory rebuilding and the creation of ideas/positions. Schools must provide opportunities to question, enquire debate, reflect and arrive at concepts or create new ideas.” A clarity on these issues can make a teacher sensitive to her/his responsibilities and a nation/ state can help to see education progressing. Preparation of such teachers is indeed a challenge as well as the requirement of the system.

1.2 Existing system: The current practices in schools indicate that the entire teaching learning process has become a routine activity, where students mug up things and remember till they complete their examinations. Once the examinations are over, the entire set of learning materials are kept aside and one also feels that one could even forget whatever was learnt in the previous year. The whole affair has become an activity to please somebody and to snatch away some marks. There is no joy of knowing, learning or constructing any new knowledge by the learner. The system also has become so dull that the teaching goes on so mechanically, in varying degrees of and disinterestedness. Those children who have a good memory can reproduce things better and those who do

not, struggle to remember and reproduce. It appears as if the whole school education is focusing on developing and testing the memory power of learners. The teachers in the teaching-learning are busy preparing learners for board examinations as though nothing is more important than marks. All schools compete with each other for showing high pass percentage/ distinctions/ranks and the intrinsic purpose of education remains somewhere elusive. The whole system needs a fresh look. The teachers have to be trained to work towards all-round development of the personality of learners. Therefore, it has serious implications for teacher preparation programme at the elementary level.

2. Pedagogical Principles at the Elementary Stage

2.1 Background: The present section aims to describe the various pedagogical approaches that are to be practiced in the elementary teacher education programme so as to empower the teacher-trainees to adopt the same in the elementary classrooms. As it has been discussed in the previous sections about the shift in the nature of the learner and learning, there is a need for corresponding changes in the pedagogy too. Before attempting to this, there is a need to look into the various concerns that have emerged during the past decade in the Elementary Education system.

2.2 Major Concerns: Universalisation of elementary education in the state of Karnataka is almost a reality now. The programmes such as District Primary Education Programme (DPEP) and the Sarva Shiksha Abhiyan (SSA) have made significant contributions in the areas of enrollment and retention of the students at the elementary level. However, the quality of education at the elementary stage is still a concern and is an unfinished agenda. Suitable pedagogical interventions need to be employed in the elementary education to raise the standards of all the learners.

The report of the national advisory committee (1993) constituted to advice on improving the quality of learning while reducing the burden on school students under the

chairmanship of Prof. Yesh Pal *inter-alia* mention that the teacher and the child have lost the sense of joy in being involved in an educational process. Teaching and learning have both become a chore for a great number of teachers and children. Added to this, a number of schools are multi-grade in nature too.

However, the multi-grade learning situation is seen as an opportunity rather than a problem in the primary schools of Karnataka, especially in the *Nali Kali* context. However, some of the schools in certain localities seem to be with single teacher throughout the academic year. This demands a teacher to learn the repertoire of new skills and acquire competencies to deal with such situations.

A study of the Karnataka Knowledge Commission's report on Pre-Service Elementary Teacher Education in Karnataka: A Status Study (2011) states that the level of understanding of subject knowledge, pedagogical knowledge and clarity of goals with respect to knowledge, skills and dispositions to be imparted to student teachers displayed by teachers educators as assessed through this study, is rather bleak. This shows the sorry state of elementary teacher education in the state.

According to Shulman (1987), teachers' knowledge bases include the following categories of knowledge: Content knowledge, general pedagogical knowledge (knowledge related to general teaching issues, for example, teaching approaches and classroom management), curriculum knowledge (knowledge about the 'tools of the trade': schemes of work, resources, and so on), pedagogical content knowledge: 'that special amalgam of content and pedagogy that is uniquely the province of teachers, their own special form of professional understanding, knowledge of learners and their characteristics, knowledge of educational contexts: groups, classes, the school and the wider community, and knowledge of educational ends, purpose and values and their philosophical and historical grounds. This shows the gamut of knowledge to be acquired by a student teacher after undergoing a teacher preparation programme.

NCF (2005) articulates a shift in teacher education as follows

Major Shifts

From	To
<ul style="list-style-type: none"> • Teacher centric, stable designs • Teacher direction and decisions • Teacher guidance and monitoring • Passive reception in learning • Learning within four walls of the classroom • Knowledge as ‘given’ and fixed • Disciplinary focus • Linear exposure • Appraisal, short, few 	<ul style="list-style-type: none"> • Learner centric, flexible process • Learner autonomy • Facilitates, supports and encourages learning • Active participation in learning • Learning in wider social context • Knowledge as it evolves and is created • Multi disciplinary, educational focus • Multiple and divergent exposure • Multifarious, continuous

Dwelling on teaching, Anderson (2001) states ‘teaching is intentional, because we always teach for some purpose primary to facilitate learning. Teaching is reasoned because what teachers teach their students is judged by them’. Preparing such teachers becomes a challenge and a responsibility. Ultimately the teacher education programme should prepare the prospective humane teachers who can be relevant to all their learners.

2.3 Significance of the theme: The Elementary Stage of School Education in Karnataka comprises classes 1-5 of primary and 6-7/8 of upper primary education. The pedagogy recommended for this stage is a child centred- joyful learning. Child-centred pedagogy keeps the children at the centre, giving importance to the children’s experiences, their needs, voices and active participation in the learning process. Thus, learning becomes more meaningful and joyful to the children. Further considering the nature of instruction at this stage, a single teacher needs to teach all the subjects at the primary stage or a few subjects at the upper primary stage, thus it is imperative that student teachers are to be trained in a repertoire of skills which are suited to all the grades.

The five guiding principles mentioned in the National Curriculum Framework (2005) provide a firm ground for adopting a suitable pedagogy at the elementary stage.

Those guiding principle are:

- (i) Connecting knowledge to life outside the school;
- (ii) Ensuring that learning is shifted away from rote methods;
- (iii) Enriching the curriculum to provide for overall development of children rather than remain textbook centric;
- (iv) Making examinations more flexible and integrated into classroom life; and
- (v) Nurturing an over-riding identity informed by caring concerns within the democratic polity of the country.

Further, NCF recommends that teaching should aim at enhancing children's natural desire and strategies to learn. Knowledge needs to be distinguished from information, and teaching needs to be seen as a professional activity, not as coaching for memorization or as transmission of facts. In the light of the above an attempt has been made to cull-out the various pedagogical practices that are to be suitably practiced at the elementary stage.

2.4 Pedagogical Approaches to be considered at the Elementary

Stage: There is a need to understand and use different pedagogies at elementary schools. This has implications for elementary teacher preparation programmes.

(a) Child-Centred Pedagogy: focuses on each of the individual child's progress and development, through active and self-directed learning, in a rich and conducive environment where every one can progress at their own pace. Further a teacher should help a child to discover his/her innate potential for expressing and shaping her/his life and consequently helping the child to develop and perfect her/his innate capacities and abilities.

(b) Activity Based Pedagogy: Learning by doing is considered as one of the best ways of learning. Activity-based pedagogy expects that a teacher teaches students through a variety of activities. Activity is the heart of the child's attempt to make sense of

the world around him/her. Therefore, every resource must be deployed to enable the children to express themselves, handle objects, explore their natural and social milieu, and to grow up healthy. In the primary classes, the basic skills are to be developed through organizing play-way activities like rhymes, stories, dramatization, group works/games. However in the upper primary classes, along with play-way activities other activities such as doing projects, assignments, writing essays, participating in subject related games such as science Olympiad and mathematical Olympiad can be organised.

(c) Joyful Learning Pedagogy: Karnataka has introduced *Nali Kali*, which was initially tried-out in the HD Kote taluk of Mysore district is one of the best examples for Joyful leaning pedagogy. The Nali-Kali method of classroom transaction not only gives a greater autonomy to the teacher but also creates the right atmosphere for the child to learn in a friendly and joyful way at his/her own pace. Learning takes place systematically in groups organized according to age wise competencies in an interactive manner. When children master the competency of one group, they move on to another group to learn the next competency. The teaching takes place through songs, games, surveys, story telling, use of educational toys and improvised teaching-learning materials, all made by the teachers themselves.

(d) Teaching for Construction of Knowledge: In the process of learning a learner generates knowledge, has been duly acknowledged as the essence of constructivism. Children construct their own knowledge by connecting new ideas to the ones existing based on the materials/activities presented to them. This type of pedagogy actively engages the learner in enquiry, exploration, questioning, debates, application and reflection leading to theory building and creation of new ideas. The processes that are involved in the constructivist learning situation includes: observation, contextualization, cognitive apprenticeship, collaboration, interpretation, construction, multiple interpretations, and multiple manifestations. The teacher-trainees need to understand theory and develop capacity to organize such activities.

(e) Critical Pedagogy: The NCF-2005 emphasized the use of critical pedagogy in the elementary classrooms. ‘Critical pedagogy provides an opportunity to reflect critically on issues in terms of their political, social, economic and moral aspects. It entails the acceptance of multiple views on social issues and a commitment to democratic forms of interaction...A critical framework help the children to see social issues from different perspectives and understand how such issues are connected to their lives...Critical pedagogy facilitates collective decision making through open discussions and by encouraging and recognizing multiple views’.

(f) Culture specific Pedagogy: refers to both teaching and its contingent discourses about the character of culture, the purpose of education, the nature of the childhood and learning and structure of knowledge. Thus, the instruction may use the cultural knowledge, prior experiences and performance styles of diverse students to make learning more appropriate and effective. The National Council for Teacher Education (NCTE, 1998) recommended for adopting culture specific pedagogies because of the pluralistic nature of the Indian society. In its revised Teacher Education curriculum titled ‘Curriculum Framework for Quality Teacher Education’ states that “A child in a tribal society may process information in an altogether different manner as compared to the one from the urban area and high socio- economic stratum. Pedagogy, therefore, should be culture-specific. Instead of using one uniform, mechanistic way of student learning, cultural practices such as story-telling, dramatics, puppetry, folk-play, community living, etc. should become a strong basis of pedagogy”(NCTE, 1998).

NCFSE (2000) rightly pointed out that, ‘India is a multi-culture, multi-lingual and multi-religious society. Every religion and state has its unique identity. This would have implications for the pedagogical approaches to be followed in different contexts.

(g) ICT Pedagogy/ E-pedagogy: There is evidence that ICT helps primary school teachers to be more effective in their teaching, especially if they are well resourced. ICT encourages students to learn independently. It continuously provides students with opportunities to experience learning as enjoyable and satisfying, to increase

their self-motivation. It consistently provides a range of opportunities for the students to direct their own learning; provides independent learning options, and enables students to access these. ICT encourages self and peer evaluation and builds students' capacity to question themselves. Thus it is imperative that the prospective elementary teachers acquire the e-pedagogy for better learning among the elementary school students.

(h) *Shikshanadalli Rangakale: (Dramatization in Education)*: The innovative program *Shikshanadalli Rangakale: (Dramatization in Education)* initiated in Karnataka helps teachers in the use of dramatization techniques in teaching/learning process. The teachers use several techniques through dramatization like story telling, play acting, mono acting, question – answer sessions, use of tableau, story boxes, activity based story telling, use of various types of dolls, masks, crowns, effigies, several low cost materials effectively, to make the child understand and concretize abstract concepts. There is a need to continue to exploit such practices as a part of the pedagogy at the elementary stage.

A couple of pedagogical practices which has got a greater implications in the context of changing scenario in teaching learning at the elementary stage has been highlighted above. In addition to the above it is also important to keep it in mind various maxims of teaching while dealing with the elementary school students.

2.5 Maxims of Teaching: A student teacher should be quite familiar with the various maxims of teaching and able to apply appropriately in the context in which he/she is engaged. They are:

1. Proceed from the known to the unknown: The most natural and simple way of teaching a content/lesson is to proceed from something that the students already know to those facts which they do not know. The teacher is to proceed step by step to connect the new matter to the old one.

2. Proceed from Simple to Complex: The simple task or topic must be taught first and the complex one can follow later on. The word simple and complex are to be seen from the point of view of the child and not that of an adult. We would be curbing the interest and initiative of the children by presenting them complex problems before the simpler ones are presented.

3. Proceed from Easy to Difficult: Students at the elementary stage should be exposed to easiest things first and then move to the difficult. This will help in sustaining the interest of the students. There are many things which look easy to us but are in fact difficult for children. The interest of the child has also to be taken into account.

4. Proceed from Concrete to Abstract: A child's' imagination is greatly aided by a concrete material. "Things first and words next" is the common saying. Small children learn first form thing which they can see and handle concretely. Care must be exercised to ensure that the students do not remain at the 'concrete stage' all the time. This is the initial step for children with a view to reach the higher stage of 'abstraction' as they advance in age.

5. Proceed from Particular to General: Before giving principles and rules, particular examples should be presented. As a matter of fact a study of particular facts should lead the children themselves to frame general rules.

6. Proceed from Indefinite to Definite: Ideas of children in the initial stages are indefinite and very vague. These ideas are to be made definite, clear, precise and systematic. Effective teaching necessitates that every word and idea presented should stand out clearly in the child's mind. For challenging ideas, adequate use must be made of actual objects, diagrams and pictures. Every possible effort should be made to make the children interested in the lesson.

7. Proceed from Empirical to Rational: Observation and experience are the basis of empirical knowledge. Rational knowledge implies a bit of abstraction and

argumentative approach. The general feeling is that the child first of all experiences knowledge in his day to day life and later he feels the rationally.

8. Proceed from Psychological to Logical: In psychological approach, one proceeds from the concrete to the abstract from the simple to the complex and from known to unknown. Psychological approach looks at the child's interest, needs, mental make up and reactions. Logical approach is concerned with the arrangement of the subject matter. While treating a subject logically, we are usually thinking of it from our own point of view and not from the point of view of the child.

9. Proceed from Whole to Part: Whole is more meaningful to the child than the parts of the whole. The 'whole' approach is generally better than 'part' learning because the material to be learnt 'makes sense' and its part can be seen by the learner as interrelated. The learner sees a relationship between the central ideas of the material to be learned. However, the 'whole' unit or passage for slow learners should be smaller than the 'whole' for the fast learners.

10. From Near to Far: A child learns well in the surrounding in which he resides. So he/she should be first acquainted with his/her immediate environment. Gradually he/she may be taught about thing which are away from the local geography and then take up Block, district, state, the country and the world gradually.

11. From Analysis to Synthesis: Analysis means breaking a problem into convenient parts and synthesis means grouping of these separated parts into one complete whole. A complex problem can be made simple and easy by dividing it into units.

12. From Actual to Representative: When actual objectives are shown to children, they learn easily and retain them in their minds for a long time. This is especially suitable for younger children. Representative objects in the form of pictures, model etc. should be used to the grown ups.

13. Proceed Inductively: In the inductive approach, we start from particular examples and establish general rules through the active participation of the learners. In the deductive approach, we assume a definition, a general rule or formula and apply it to particular examples.

It must be accepted that in the ultimate analysis maxims are meant to be our servants and not masters. Moreover, by and large, they are interrelated. Different maxims suit different situations. It is, therefore, essential that a judicious use should be made of each maxim. They are only means and not the end by themselves.

2.6 Other Principles to be followed while teaching: There are other principles which need to be applied in teaching-learning contexts.

(a) Principle of Definite Goal: Teaching should start with a definite goal. In the absence of the definite goal/aim the teacher might go astray and at the same time his teaching might lack coherence and definiteness. The students do not gain much if the lesson is transacted haphazardly and aimlessly. Without definite aim/goal, even the best lesson would fail to achieve its objective. Definite aim is of great help to both the teacher and the taught. It makes the teaching and learning interesting, effective, precise and definite.

(b) Principle of Active participation in Learning: Teaching is ineffective if the students do not actively participate in the lesson. Learning becomes active and quicker if the student is made active physically as well as mentally. Teaching can be facilitated if the students participate actively in the learning process and learn while actually manipulating the things to be learnt. Children learn their best through activity but that activity must be psychologically sound. Learning by doing removes the dullness of the lessons and puts the children in life situations. The child engages himself fully in the activity and learns qualitatively as well as quantitatively. Only that knowledge becomes a part of the life, which he gains through self – activity. Hence teaching should be organised as to provide the maximum opportunities to the child to learn by doing.

(c) Principle of Motivation and Interest: Principle of motivation is considered very important to carry out successful teaching – learning process. It is said that half the battle is won if the students are truly motivated for the lesson. Motivation is the petrol that drives the mental engine. Motivation not only promotes but also facilitates learning. It arouses the interest of child and once he is genuinely interested, he becomes attentive, and consequently learning becomes effective. Hence teacher should properly motivate the students by creating interesting learning situations.

(d) Principle of Co-operation: Successful teaching is a co-operative affair between the teacher and the students. If there is no co-operation, there may not be good teaching. Hence a teacher should plan his teaching to give the pupils abundant opportunities for co-operation in organisation, management, participation in discussion, and other class-room activities.

(e) Principle of Creativity and Recreation: Successful teaching is a source of happiness to the teacher and the taught as well. Work becomes its own reward for the teacher, and the students enjoy it to the maximum. Teaching is not to be construed as a routine affair. It should arouse the creativity in the children. Successful teaching proves to be a source of creativity and recreation. It awakens in the learners the desire to be creative and engages them in activity which is a source of pleasure to them.

(f) Principle of Progressiveness: Teaching should be progressive. A good teacher is concerned with the progress of the children in the development of attitudes and interests, ideas and information, skills and abilities and development of habits of thoughts and action. Good teacher looks for the improvement. Progress in method and technique should find place in good teaching. Good teaching looks forward for improvement in the light of new experiments in the field of teaching. When teaching improves steadily, it is progressive.

2.7 Current system: The Government of Karnataka has initiated a number of innovative programmes in teaching at the elementary level; still, there is a need to do a lot. The *Nali-Kali* approach to teaching, the radio programmes and teaching of English projects are worth mentioning at this context. Further the training of in-service teachers training programmes like *Chaitanya* Training Program (I & II), *Chaitanya Tarani – Bahumukhi*, and *Shikshanadalli Rangakale* and the trimester/semester pattern are some other initiatives adopted for improving the quality of elementary education in the state under DPEP and SSA.

Though there are efforts to make the learning more joyful (*Nali kali*), and reducing the burden of students, the quality of elementary education is still a great concern. The spirit of NCF-2005 has yet to be reflected in the Karnataka state school curriculum and transactions.

2.8 Alternatives Suggested: The teacher preparation at the elementary stage requires a major transformation to prepare the teachers for the future. The recommendations of the NCF-2005 and NCFTE (2009) could be the guiding principles for the major transformation. To specify a few, the role of the teacher in the constructivist paradigm has changed into a facilitator. Student teachers should be trained in such a role when they are perusing the D. Ed itself. The child centered, activity based and joyful leaning should be focal aspects of the elementary teacher education curriculum. Teacher-trainees should be exposed to the multi-cultural, mutli-grade and multi level contexts to deal with actual situations when they are appointed as school teachers.

Teacher-trainees are to be empowered to use of ICT as a pedagogical tool in the classrooms and also for their professional development in this era of knowledge revolution. Teacher educators and teachers should not cut a sorry figure in front of the students due to the lack of competencies in dealing with ICT and its application in Education. Further teaches need to customize the instruction to tap the potentialities of all children further nurturance of their faculties and moving towards development of higher order thinking skills.

The ultimate goal of the elementary teacher education programme should be to develop a humane teacher who has a real concern for the learner and his/her growth and development.

2.9 Broad methodologies proposed: The teacher education programme at elementary stage in Karnataka needs to be overhauled in the light of the various developments that have happened during the past one decade. The teacher education curriculum needs to enrich with various pedagogical concerns that are arising by integrating with curricular areas such as learner studies, contemporary studies and educational studies. Further teacher-trainee should get an opportunity to plan and practice such pedagogies during the studies related to curriculum studies, pedagogic studies (methodology courses) and during the internship. The school internship should provide various context based experiences to practice different pedagogies and master the competencies to deal with real situations after the D. Ed programme.

2.10 Executive summary: Teacher education curriculum is expected to develop dispositions among teachers to discharge their roles effectively. The shift in the nature of the learner and their learning demands corresponding changes in the pedagogy too particularly at the elementary level. Various emerging concerns in the field of elementary education has necessitated adoption of various pedagogies that are more learner friendly and focusing on whole development of the learner. A child-centered, activity based and joyful leaning has been recommended at the elementary stage. Further teaching for construction of knowledge by the learner, use of critical pedagogies for empowering the learners and the e-learning and culture specific pedagogies have been further recommended to adopt at the elementary stage. Thus there is a need to overhaul the teacher education programme at the elementary stage in Karnataka.

3. Multi-disciplinary/Inter-disciplinary Orientation to Teaching and Learning

3.1. Background: At elementary level, the learner needs to learn languages and core subjects which are considered as essential for leading meaningful life in the society. This has been emphasized by various committees, like- Kothari commission, NPE 1986, & Learning without burden-Joyful learning by Yashpal Committee report, etc. Since the same learner has to acquire these knowledge in the same school environment by different teachers, may create some kind of learning difficulties which might have arisen due to disciplinary boundaries which we have created. Hence, it demands teachers to adopt more of multidisciplinary/interdisciplinary approach, which provides comprehensive thematic outlook for the learnt concepts and helps the learner to acquire knowledge in more unified form and thus making the learner “Whole learner”. As such, knowledge generation is not a compartmentalized activity.

3.2 Concerns: The curriculum for the ten year school - A frame work (1975) of NCERT express the need to extend the boundaries of the subject from stage to stage, by adopting the spiral approach to curriculum and integrating the different subjects in a natural way.

The NCF (2005) recommends using constructivist approach for teaching and learning. Learner is considered as constructor of meaningful knowledge by using various learning experiences provided to him/her. The role of teacher is facilitator and reflective practioner. In this context, an elementary school teacher can use multi-disciplinary approach to teaching different subject knowledge. This helps the learner to learner the concept/ theme or topic in holistic perspective. This also provides an opportunity for learner to contextualize, to develop cognitive apprenticeship, multiple interpretation, and multiple manifestations and apply his /her knowledge in different situations and get the desired results.

As per RTE act, the number of teachers at elementary level is one for each class. In the lower primary level, the teacher is expected to teach all the subjects with certain set competencies. This gives a wider opportunity for teacher/s to adopt multi-disciplinary/ interdisciplinary approach to teach the theme/ issues of one subject with

other subjects, so that, it helps the learners to correlate the knowledge of one field with the other field and acquiring comprehensive view of the theme/issue. It also provides opportunity to correlate subject knowledge of one discipline with the subject knowledge of the other.

3.3 Significance of the theme: School is miniature society and is epicentre of the community. Hence it must reflect the reality of society in the process of knowledge acquisition. At elementary level, since the learner is in formal set up, the basic competencies which are very essential for his/her growth and development needs to be provided in holistic manner. Hence multi-disciplinary/interdisciplinary orientation of knowledge becomes more meaningful.

In a heterogeneous classroom, children bring in variety of diversities with them. We find the difference in their learning styles (visual, auditory and tactile); pace of learning (slow, average and gifted); different home backgrounds, different culture etc. All these enrich the learning experiences of learning situation and the learner.

The major objective of education and one of the aspirations of RTE act is “*all round development of the child*” by providing quality education in schools. Though schools design various curricular & co-curricular activities to achieve them holistically, yet, one finds more emphasis on cognitive domain and still we are unable to achieve this objective. Even within the cognitive domain. Even within the cognitive domain, the learner’s achievement is restricted to knowledge level, while, the taxonomy of instructional objectives aspires to take learners to higher levels. According to Revised Bloom taxonomy, (see Annexure) has two dimensions, i.e, knowledge (factual, conceptual, procedural & meta-cognitive); and the cognitive process dimension- (Remember, comprehension, application, analysis, evaluation & creativity); clearly indicates that, knowledge acquisition by the learner in any form needs to be analysed and appropriate cognitive process dimension objectives are to be selected to make learning more meaningful. Multiple orientations to the knowledge will enable the learner to view and manipulate the knowledge in multiple dimensions. Thus it helps in promoting creative abilities of the learners and to make creative learners in the class room possible.

Every learner comes to school with certain abilities and this can be enhanced to higher level by providing suitable learning opportunities & experiences, with the help of mediation. The Zone of proximal development of learner needs to be understood and commensurate with it, contingent scaffolding needs to be provided by teachers. Eventually, all our teaching-learning activities must provide scope for developing divergent, critical, and reflective thinking abilities among the learner. As NCF-2005 has rightly pointed out that, “*conceptual development is a continuous process of deepening and enriching connections and acquiring new layers of meaning.*” For this to happen in the classroom, the teacher can demonstrate his/her creative ability in planning & designing various learning experiences by contextualizing the learning concepts to learners competencies, & by considering learning styles & pace of learning of the learners.

Interdisciplinary instruction entails the use and integration of methods and analytical frameworks from more than one academic discipline to examine a theme, issue, question or topic. The hallmark of interdisciplinary education is integration of notions and guiding principles from multiple disciplines to systematically form a more complete, and coherent, framework of analysis that offers a richer understanding of the issue under examination. The uni-disciplinary approach helps in deeper understanding the discipline through penetration within it, while the multi disciplinary approach allows having multiple views, to analyse the similarities and also the differences prevailing with them. This promotes the horizontal expansion of knowledge and thus provides ample opportunities for fostering the creativity and a wide angle of knowledge among the learners.

An emerging viewpoint in education emphasizes that a thorough understanding of today's real life problems requires interdisciplinary reflection. Learners who are regularly exposed to classroom interactions and assignments that tackle real-world problems in an interdisciplinary fashion; engages them in *significant learning*, & helps in realize cognitive gains, and are better positioned to understand challenging problems and to frame viable solutions. In the beginning the interdisciplinary approach may be used and

then move on to multi-disciplinary approach at the higher primary level, so that it helps in providing various learning opportunities and promoting them to become creative learners.

Cross-disciplinary analysis – examines an issue typically germane to one discipline through the lens of another discipline.

Multi-disciplinary analysis – examines an issue from multiple perspectives, without making a concerted effort to systemically integrate disciplinary perspectives

Inter-disciplinary analysis – examines an issue from multiple perspectives, leading to a systematic effort to integrate the alternative perspectives into a unified or coherent framework of analysis.

multi-grade teaching, with inbuilt learning assessment as learners progress in learning ladders. Initially, it was introduced for classes I & II. The teachers actively participated and made the learning more joyful and meaningful to the learners through play-way method. Now, the program is extended up to class III. Teachers consider this as burdensome as it added extra class with extra students. Teachers are not able to absorb this well

At present, a D.Ed trainee is supposed to teach two lessons/units with integrative approach. This provides a scope for teacher trainee to use inter-disciplinary approach to teach a concept/ theme/ topic/ issue in a more comprehensive way. But it is going on in a routine manner without the rigour of integrated approach. In fact, this also allows them to explore the various learning resources to be used judiciously and making learning more meaningful. This calls for improvements.

3.5 Suggested Alternatives:

- Teacher trainees need to be trained about the importance of inter/multi disciplinary methodologies.
- Teacher-trainees can be sensitized about inter-relationship among different subjects through identified themes. And there is need for sharing of ideas by networking with – colleagues.

- Teacher trainees need to be trained in appreciating multi/inter disciplinary perspectives as they help in providing authentic learning and allows for authentic assessment.
- Teacher trainees are to be trained to adopt critical pedagogy as one of the philosophy of teaching so that it develops abilities to integrate conflicting insights from alternative disciplines and also it promotes the tolerance to accommodate the differences while taking decisions on the issue/s. (see Annexure-2).
- Teacher trainees are to be trained to adopt various cooperative and collaborating learning strategies by using heterogeneous grouping techniques. Thus, there is a need to integrate inter/multi disciplinary concerns and methodologies in elementary teacher preparation programme.

3.6 Executive Summary:

(a) At elementary level, since the learner is in formal set up, the basic competencies which are very essential for his/her growth and development needs to be provided in holistic manner.

(b) Multiple orientations to the knowledge enables the learner to view and use the knowledge in multiple dimensions. Thus it helps in promoting creative abilities of the learners and to make creative learners in the class room.

(c) The multi disciplinary approach allows having multiple views, to analyse the similarities and also the differences prevailing with them. This promotes the horizontal expansion of knowledge and thus provides ample opportunities for fostering the creativity among the learners.

(d) An effective teacher eventually is not only one who also has indepth knowledge and understanding in only one area, while s/he also has a wide understanding of collateral areas. An elementary teacher preparation of such versatility is the need of the system.

4. Knowledge construction: Modalities and Feedback

4.1 Looking back

Kanakadasa was studying in an Ashram. Once the Guru, Vyasaraaya called all his disciples and told them to Eat Banana where no one would see them. All the disciples left the place and when they came back, the Guru asked them how they managed to eat. Every one explained how smart they were to hide themselves to eat, except Kanakadasa. Kanakadasa said, "Guruji, I could not eat it. I could not find a place where God was not present."

In another story, When Charaka the great physician was studying his Guru asked all the pupils to collect a plant, which has no medicinal value. Many of them came with different plants except Charaka. Charaka told, "Sir I could not find any plant or grass which has no medicinal value'.

Pleased with answers pupils in both the cases, masters asked them to peruse the path on their own further as they are capable of Independent learning.

The small stories above, mention the construction of meaning, concluding out of experience. The feedback by children to Gurus was the reflection of the learners. Guru in those contexts did not go by the set order or content. The autonomous teacher treating the experience of learners as learning provide insights in to process of learning than mastering the content.

NCFTE (2009) envisions a teacher with confidence, critically sensitive to the field practices, vision evolved out of reflective practices in the field would be an asset in creating better learning climate as she would not mechanically accommodate and adjust to existing conditions, but would try to improve upon them and also possess the necessary technical know-how and confidence.

4.2 Current status: DIETs and DEd colleges of Karnataka (Even in our country as per the NCFTE Concerns) have adopted the traditional way of considering Knowledge as given, embedded in the curriculum and accepted without question; there is no engagement with the curriculum. The student teacher or the regular teacher never critically examines curriculum, syllabi and textbooks. The lessons are just delivered as goods mechanically.

4.3 Constructivism: Constructivism argues that humans generate knowledge and meaning from an interaction between their experiences and their ideas. Each learner individually (and socially) constructs meaning---as he or she learns. Constructing meaning is learning. Piaget called these systems of knowledge schemata. It is also called Cognitive or Piagetian constructivism.

The modern times demand as mentioned in the NCFTE vision of teachers, we need teachers who are caring, and those who have concerns about the children and their diversity in learning. This situation demands Social constructivism of Vygotsky.

Social or Vygotskian constructivism emphasizes education for social transformation and reflects a theory of human development that situates the individual within a sociocultural context. Individual development derives from social interactions within which cultural meanings are shared by the group and eventually internalized by the individual. Individuals construct knowledge in transaction with the environment, and in the process both the individual and the environment are changed. The subject of study is the dialectical relationship between the individual and the social and cultural milieu.

Schools are the socio-cultural settings where teaching and learning take place and where "cultural tools," such as reading, writing, mathematics, and certain modes of discourse are utilized. This approach assumes that theory and practice do not develop in vacuum; they are shaped by dominant cultural assumptions. Both, formal knowledge, the subject of instruction, and the manner of its presentation are influenced by the historical and cultural environment that generated them. To accomplish the goals of social transformation and reconstruction, the context of education must be deconstructed, and the cultural assumptions, power relationships, and historical influences that under gird it must be exposed, critiqued, and, when necessary, altered.

The characteristics of constructivist teaching-learning are as follows.

1. Multiple perspectives and representations of concepts and content are presented and encouraged.

2. Goals and objectives are derived by the student or in negotiation with the teacher or system.
3. Teachers serve in the role of guides, monitors, coaches, tutors and facilitators.
4. Activities, opportunities, tools and environments are provided to encourage meta-cognition, self-analysis -regulation, -reflection & -awareness.
5. The student plays a central role in mediating and controlling learning.
6. Learning situations, environments, skills, content and tasks are relevant, realistic, authentic and represent the natural complexities of the 'real world'.
7. Primary sources of data are used in order to ensure authenticity and real-world complexity.
8. Knowledge construction and not reproduction is emphasized.
9. This construction takes place in individual contexts and through social negotiation, collaboration and experience.
10. The learner's previous knowledge constructions, beliefs and attitudes are considered in the knowledge construction process.
11. Problem-solving, higher-order thinking skills and deep understanding are emphasized.
12. Errors provide the opportunity for insight into students' previous knowledge constructions.
13. Exploration is a favored approach in order to encourage students to seek knowledge independently and to manage the pursuit of their goals.
14. Learners are provided with the opportunity for apprenticeship learning in which there is an increasing complexity of tasks, skills and knowledge acquisition.
15. Knowledge complexity is reflected in an emphasis on conceptual interrelatedness and interdisciplinary learning.
16. Collaborative and cooperative learning are favoured in order to expose the learner to alternative viewpoints.
17. Scaffolding is facilitated to help students perform just beyond the limits of their ability.
18. Assessment is authentic and interwoven with teaching.

Constructivist's teaching-learning essentially involves 5 Es. It should be true for teacher preparation programmes too. Each of the 5 E's describes a phase of learning. They help to experience common activities, to use and build on prior knowledge and experience, to construct meaning, and to continually assess their understanding of a concept. The process begins this way.

- **Engage:** An "engage" activity should do the following: a) Make connections between past and present learning experiences. b) Anticipate activities and focus students' thinking on the learning outcomes of current activities. Students should become mentally engaged in the concept, process, or skill to be learned.
- **Explore:** Exploring phase provides students (Teacher trainees) with a common base of experiences. They identify and develop concepts, processes, and skills. During this phase, students actively explore their environment or manipulate materials.
- **Explain:** Explain- helps students explain the concepts they have been exploring. They have opportunities to verbalize their conceptual understanding or to demonstrate new skills or behaviors. This phase also provides opportunities for teachers to introduce formal terms, definitions, and explanations for concepts, processes, skills, or behaviors.
- **Elaborate:** Elaborating phase- 'extends students' conceptual understanding and allows them to practice skills and behaviors. Through new experiences, the learners develop deeper and broader understanding of major concepts, obtain more information about areas of interest, and refine their skills.
- **Evaluate:** This phase encourages learners to assess their understanding and abilities and lets teachers evaluate students' understanding of key concepts and skill development.

Suggested alternatives or Proposed Process for construction of knowledge and feed back in D.Ed Context	Justification.
<ul style="list-style-type: none"> • Experimentation with learning methods: students individually perform an experiment with few fellow students and then come together as a class to discuss the results. 	<ul style="list-style-type: none"> • Microteaching now practiced lacks philosophical base reducing it to a ritual. The small

<p>(presentations, experiments, colloguing, painting, group teaching could be conducted in cliques)</p> <ul style="list-style-type: none"> • Research projects, - Field trips, - learning cell, --A collaborative learning group, - A student debate are some of the processes which could be utilised for learning in TE. • Films. These provide visual context and thus bring another sense into the learning experience. • A reaction to a video is also an example of active learning because most students love to watch movies. The video helps the student to understand what they are learning at the time in an alternative presentation mode. Make sure that the video relates to the topic that they are studying now. 	<p>performance could be not only presentation, but also other forms like experiments, colloguing; painting, group teaching.</p> <ul style="list-style-type: none"> • Films, reaction to short video clippings, theatre, and simulations are of rarely used for practical proposes. Thus, DEd is losing exposure to the powerful media making prospective teachers to conceptualize conventional chalk-talk methods.
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4.3.1 Constructivist approach for Teacher trainees: Constructivist ideas have been used to inform adult’s education too. Adults have many more experiences and previously existing neurological structures. Approaches based on constructivism stress the importance of mechanisms for mutual planning, diagnosis of learner needs and interests, cooperative learning climate, sequential activities for achieving the objectives, formulation of learning objectives based on the diagnosed needs and interests. Personal relevance of the content, involvement of the learner in the process, and deeper understanding of underlying concepts are some of the intersections between emphases in constructivism and adult learning principles.

Since teacher education programmes are concerned with adult learners, who are autonomous and self-directed, the emphasis, therefore, has to be on developing professional knowledge and capacities through a variety of self-directed tasks including case studies, projects, seminars and research activity. An important feature distinguishing the proposed process-based teacher education from the conventional teacher education is that an engagement with theoretical concepts and frameworks takes place within the learner’s experiential and larger social realities.

<u>Suggested alternative for Adult learners with constructivist approach</u>	<u>Justification</u>

<p>For example to discuss a concept like of child centered education teacher trainees can be asked to draw certain indicators of child centeredness. Further the discussion can be on teacher centered Vs Child centeredness, changes in learning process, Nali-Kali, Activity based approaches in teaching (Chaitanya, Chaitany-2) and others observations at primary level.</p> <p>The other concepts for instance</p> <p>Concept Formation, Activity Based Learning, Role-play and Dramatisation, Inducto-deductive Reasoning, Problem Solving, Social Inquiry, Projects and guided study, Field visit and Reporting.</p> <p>And many more which the trainee themselves give the opinions of their own. Tr Educator needs to take those views to build a theory which will be to the particular class.</p> <p>This serves not only the learner centred, Adult friendly learning but also having feedback among and across the learner group.</p> <p>Equipping with ICT helps a lot for the adult learners engaging with self-learning. Instead of creating a lab with separate space ICT can be mobile, Computer with net in every class room is critically useful and developmentally appropriate in the class.</p>	<p>Concerns expressed in NCF2005 and NCFTE 2009.</p> <p>The traditional methods of teaching and learning are based on the view that knowledge is external and 'given' where as constructivist view knowledge as subjective and based on the learner.</p> <p>Use of computers is many times limited to computer literacy and not CAL.</p>
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4.3.2 Training to be Reflective Practitioners: Teacher education programmes at all stages need to provide opportunities to the would-be teachers for understanding the self and others, develop sensibilities, the ability for self-analysis and the capacity to reflect. Professional opportunities need to include reflection on their own experiences and assumptions as part of the course and classroom enquiry; critical observation and reflective analysis of the practice of teaching.

Suggested alternative for Reflective practitioners	Justification
<p>Currently Action Research paper is transacted separately in second year.</p> <p>Apart from treating action research as a separate paper, every practice in all the methods need to have action research.</p> <p>- After a discussion, a practice lesson, observing a lesson, at the end of micro teaching sessions – reflective sheets can be prepared with Learners preparing own questions based on the guidelines. Answers could be shared or kept oneself for one's</p>	<p>NCF TE suggest for Professional opportunities for reflection on their own experiences and assumptions as part of the course and classroom enquiry; critical observation and reflective analysis of the practice of teaching.</p> <p>Availability, quality, appropriateness and sufficiency of feedback are necessary for learning to be reflective practitioners.</p>

own improvement.	
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To sum up, the above discussions have a belief and a conviction that knowledge is not given but gained through real experiences that have purpose and meaning to the learner. The exchange of perspectives about the experience with others will develop a healthy learning environment and that needs to be created in schools and elementary teacher preparation programmes.

5. Use of Community Resources in Facilitation of Learning

5.1 Background: All human beings are social beings and they wish to live in communities chosen by them. Communities are important centres of learning. They are rich store house of resources including knowledge, customs, conventions, folkways, more, norms. Every learner is a member of the community and interacts either directly or indirectly with the resources of the community- natural or human made. Educational institutions are important units of the community and have the responsibility of preparing future citizens of the country. The human products of these institutions go back to the society and strive for the progress of the society. Therefore, it is necessary that they understand the community in which they live and try to construct knowledge using the resources available in the community. However, unless an attempt is made by the teachers to help their learners to explore their community and its resources, learners may not consider them as worthy to be studied.

5.2 Concerns: The NCF 2005 advocates that the curricular concerns are to be discussed with the stake holders. It also upholds the view that there is a need for linking school knowledge with the knowledge outside the school. While, the NCFTE (2009)

articulates that there is a need to develop the capacity of the teachers to contextualize textual materials and they need to make adjustments in teaching according to the needs of the learners. The RTE (2009) raises the issues of learning through activities, discovery and exploration in a child friendly and child centered manner, and it advocates the concept of building up child's knowledge as a requirement.

5.3 Significance of the theme: Every learner, born in a society, receives formal education in a formal set up, which is expected to prepare her/him to live in a society as responsible citizens. If the school education has to be meaningful, it must be related to the society in which the child lives. All learning must find its usefulness in the society. Only then the learner finds school experiences interesting and enjoyable. If this is to be realized, every teacher must make use of the resources which are available in the environment of the learner. This helps the learner to link school knowledge with the local environment. It makes learning more concrete and long lasting. As community resources are important tools in teaching and learning, all the teachers are expected to develop an understanding about the community resources of their surrounding and find ways of linking them with the school knowledge. Therefore, the community resources play a vital role in concretizing learning across the subjects.

NCF (2005) stresses the need for learner participation in the teaching learning processes and integrating knowledge. By using community resources we can increase learner participation and soften the boundaries between the subjects by integrating knowledge. This results not only in reducing the burden of the learners but also in making learning joyful. It is also expected that, after understanding the worth of the community resources, learner will be able to care and preserve the community resources for sustainable development.

5.4 The existing system: The present school system is highly text based and classroom oriented. Teachers are busy in completing the transaction of the textual content as expected by the higher authorities and keeping a continuous record of learner's achievements. There is hardly any scope for relating the textual content to the local

environment. In a teacher-centered classroom, often, the learner is discouraged from narrating her/his experiences as it would hamper the speed of the coverage of the lessons. At times even the teachers are not even aware that they could take the learners beyond the textbook. Ideally, 'a text' is to be construed as a pretext and proceed beyond..

Teachers feel that taking the children out to the community takes lot of time and the quantum of learning that occurs is too little. It is only a waste of time and energy. This is a myth. Children learn more and the learning is long lasting, when they get direct experience. Paradoxically, teacher trainees are also not taught what and how to relate the local community resources to the classroom context in order to make learning meaningful to the learner.

5.5 Alternatives suggested: Community resources are those resources which are accessible to all members of the community. These members in turn also have the responsibility to protect and preserve them. Being members of the community, all learners interact with the community and construct their own knowledge. As much of the learning is social in nature, the child's community and the local environment form the primary context in which learning takes place (NCF 2005). School should attempt at changing its processes from information oriented to knowledge generation. This is possible when learning situation is created by the teacher in the context of child's world and makes the boundary between the school and its natural and social environment porous. As reflected in NCF 2005, local environment is a natural learning resource. Therefore, it is expected that children become alive to the issues of the environment and nurture their concerns for it. As local environment consists of socio cultural world along with physical and natural world, the voices of the children are required to be heard in the class as well. Further, through the community resources teachers could help children develop projects of study based on local traditions and peoples' practical ecological knowledge and compare with school knowledge.

NCFTE 2009 states that, it is important for the development of concepts in children as well as the application of school knowledge in real life that the formal school knowledge is linked with community knowledge which increases the relevance of education as well as quality of learning. This necessitates active engagement of the learner with the community resources, thus resulting in providing experiences to the learners beyond the textbook. This not only enriches learning but also helps in discouraging rote memorization. The community resources may include social institutions, knowledge, technology, occupations, folk culture, structure etc.

NCF 2005 recommends the inclusion of locally relevant content in the curriculum as well as pedagogy. This adds to the responsibilities of the teacher for which s/he needs to be equipped in selecting and organizing learning experiences from the community for the class and subject to be taught. An earnest attempt in this regard has been made by the Government of Karnataka by proposing to prepare text books in Social Sciences geographically, division-wise at elementary stage. This shows that Karnataka has taken initiatives in this direction.

Teachers should not only identify such resources but adjust them along with the teaching strategies according to the needs, interests, learning pace and level of the learner, as textbooks by themselves do not help completely in developing knowledge and understanding among the learners. This calls for preparing teachers accordingly.

For using community resources in the teaching learning process, careful planning on the part of the teacher is essential. The activities may be designed for taking the children to the community or bringing the community to the school. These activities not only help children to understand their community resources better but also facilitate authentic learning. This develops a sense of belongingness resulting in a strong bondage between the school and the community which is one of the goals of elementary education.

The Government of Karnataka has to its credit several practices of the schools which lend themselves to the use of community resources. The Metric Mela, TLM Mela, *Jathas*, Medical camps, School Festivals, Book Exhibition cum Purchase, SDMCs and PTAs, *Meena Group*, *Shalegagi Naavu Neevu* etc. are a few popular practices. All these programmes are organized using local human resources. We need to prepare teachers to participate actively in all these programmes and think of some more innovative programmes to use the community resources in a better way..

5.6 Broad methodologies proposed: While selecting the content for various subjects, it is advisable to think globally and act locally. The teacher trainees must be helped to develop the ability to identify the textual content and relate it to the community resource. The teacher trainees must also be helped to develop skill in utilizing community resources for the purposes of knowledge generation by the learner. The proposed strategies, other than the existing ones, may include field survey, project work, educational tours, working with the community etc. for optimum utilization of available resources.

5.7 Precautions: (1) Keeping the ‘time’ as an important factor, select such community resource, which have wide application and relevance to the syllabus.
(2) Link learners to community sites out of school hours also as exploratory activities.
(3) As far as possible, it is better to have a yearly plan for using community resources at different intervals. It is possible to avoid duplication of visits and save time, wherein all the faculty can join together, analyze the syllabus, identify the content which can be related to the local environment and prepare a schedule for utilizing community resource. This breaks the monotony of being in the classroom and brings variety in learning.

5.8 Executive Summary: As community resources are authentic resources, they need to be integrated into teaching-learning in schools. Teacher-trainees need to be enabled to understand its importance and develop capabilities of going beyond classroom and text- oriented activities. This should get adequate attention in elementary teacher

preparation programmes. As Karnataka is already doing some work in this direction, it needs to be build on the existing practices.

6. Versatile Teacher

6.1 Background: Society holds Teachers in high esteem. Traditionally, teachers were equated to god and all his/her acts were accepted without any question. The culture of education and purposes of education are changing. We are in an age of specialisations and super specializations. The expectations of society are ever changing. Commensurate with the expectations, teachers also need to change and be relevant to all learners.

The NCFTE (2009) endorses the views expressed by NCF (2005) saying that it places different demands and expectations on the teacher, which need to be addressed both by initial and continuing teacher education. Initial teacher education especially, has a major part to play in the making of a teacher. It marks the initiation of the novice entrant to the calling and as such has tremendous potential to imbue the would-be teacher with the aspirations, knowledge-base, repertoire of pedagogic capacities and humane attitudes’.

The NCFTE (2009) enumerates the areas articulated by RTE, which have their implications for teachers. It includes;

- Conformity with the values enshrined in the constitution.
- All round development of the 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-centred manner.
- Medium of instruction shall, as far as practicable, be in child’s mother tongue.

- Making the child free of fear, trauma and anxiety and helping the child to express views freely.
- Comprehensive and continuous evaluation of child's understanding of knowledge and his or her ability to apply the same.

6.2 Existing system: Elementary teacher education programme which is in practice suffers serious problems. NCFTE (2009) has identified them. Three important problems include the following. (1) Initial training of elementary teachers continues to suffer from isolation, low profile and poor visibility in view of it being a non-degree programme. (2) Elementary education and early childhood education have been neglected as distinct areas of knowledge with their own distinct concerns, concepts and methodological perspectives. (3) Another instance of neglect of elementary teacher education is the non recognition of the need for specifically qualified teacher educators in elementary education. The teacher educators themselves have secondary education orientation, and are expected to train the trainees for elementary level. These problems continue to bother elementary teacher education programme in Karnataka too. Added to this in Karnataka, there is no separate cadre of teacher educators meant for elementary education. On the cap of it, there is no separate cadre for academic and executive positions either. A DIET lecturer may become a BEO/ BRC, the DIET principal can become a DDPI, A DIET senior lecturer can become a lecturer in a CTE, and a DDPI can become a reader in CTE and such. All these are systemic impediments. Therefore the urgent need is to have a separate cadre of teacher educators for elementary and secondary levels separately.

The NCFTE (2009) also endorses the views of NCF 2005, on describing the current concerns of teacher education, as follows.

- Experiences ...indicates that knowledge is treated as 'given', embedded in the curriculum and accepted without question; there is no engagement with the curriculum, syllabi and textbooks are never critically examined by the student teacher....

- Teacher education programmes provide little scope for student teachers to reflect on their experiences.
- It is assumed that links between learning theories and models and teaching methods are automatically formed in the understanding developed by the student teachers. Theory courses have no clear link with practical work and ground realities.

Thus, the present teacher education in general and teacher preparation in particular at the elementary level requires a fresh look and a new treatment rooted in preparing them as versatile teachers.

6.3 Alternative Suggestions: The Teacher Education programme with a specific reference to pre-service education of elementary teachers needs a fresh look, as it suffers from serious limitations. The contemporary context and concerns demand a reform in teacher education sector. Discussing this, NCFTE (2009) identified inclusive education, perspectives for equitable and sustainable development, role of community knowledge in education and ICT in schools and e-learning concerns as emerging ones for which teacher education programmes must focus on a priority basis. NCFTE (2009) also asserts that due emphasis is to be given to developing reflective teachers with positive attitudes, values and perspective along with skills for the craft of teaching.

Discussing on the teacher's role, philosophy, purpose and practice of teacher education, NCFTE (2009) enumerates the following vision of teacher education which has implication for elementary teacher preparation programmes. This could be indeed, a pointer for Karnataka too.

- “Teachers need to be prepared to care for children, enjoy to be with them, seek knowledge, own responsibility towards society and work to build a better world, develop sensitivity to the problems of the learners, commitment to justice and zeal for social reconstruction.
- Teachers need to promote active learning and facilitate construction of knowledge among learners.

- Teacher education must engage with theory along with field experiences.
- Teachers need to be trained in organizing learner-centered, activity-based, participatory learning experiences- play, projects, discussion, dialogue, observation, visits, integrating academic learning with productive work.
- Teacher education should provide opportunity to student- teacher for reflection and independent study without packing the training schedule with teacher directed activities alone.
- The programme should engage teachers with children in real contexts rather than teach them about children through theories alone. It should help them understand the psycho- social attributes and needs of learners, their special abilities and characteristics, their preferred mode of cognition, motivation and learning resulting from home and community socialization.
- The programme should help teachers or potential teachers to develop social sensitivity and consciousness and finer human sensibilities.
- Teacher education programme need to broaden the curriculum (both school and teacher education) to include different traditions of knowledge; educate teachers to connect school knowledge with community knowledge and life outside the school.
- Teacher education programmes need to help teachers appreciate potential of hands-on experience as a pedagogic medium both inside and outside the classroom; and work as an integral to the process of education.
- Teachers need to re-conceptualize citizenship education in terms of human rights and approaches of critical pedagogy; emphasize environment and its protection, living in harmony within oneself and with natural and social environment ; promote peace, democratic way of life, constitutional values of equality, justice, liberty, fraternity and secularism, and caring values.
- In view of many- sided objectives of teacher education, the evaluation protocol needs to be comprehensive and provide due place for evaluation of attitudes, values, dispositions, habits and hobbies, in addition to the conceptual and pedagogical aspects through appropriate quantitative as well as qualitative parameters.

In order to prepare teachers of the above qualities, the following model is recommended.

Recommended model of a versatile teacher

Sl no	Knowledge (What teachers should know)	Skills (What teachers should do)	Dispositions (What traits teacher should possess)
1	Subject knowledge	Planning and preparation	Humane
2	Factual information	Communication	Caring
3	Teaching strategies	Classroom organisation	Professionalism
4	Promotion of literacy across curriculum	Classroom management: <ul style="list-style-type: none"> • consistent discipline • multi tasks • classroom setup • with-it-ness • routines and transitions • variety and balance 	Dedication to teaching profession
5	Diverse needs of students	Questioning	Flexibility
6	Sustainable development	Designing developmentally appropriate lessons	Tolerant to variety
7	Objective evaluation and feedback	Developing higher-order thinking skills	Humourous
8	Constructivism	Objective assessments and feedback	Patience
9	Critical pedagogy	Time on task	Task orientation
10	Reflective practice	Linking instruction to real life for students	Encouragement and warmth
11	Professional autonomy of teachers	Motivation	Fair and objective
12	Professional responsibilities	Reflective practice	Eternal learner
13	Strategies of professional development	Positive personal interactions with students	Democratic
14	Inter/Multi disciplinary approaches	ICT mediation	
15		Inclusive instruction	
16		Reflective practitioner	

17		Inter/Multi disciplinary approaches	
18		Setting Goals	

6.4 Broad methodologies proposed: In order to develop a teacher who personifies the above model, care must be taken to encompass all the above attributes and a curriculum so developed must be capable of enabling the teacher with above knowledge, skills and dispositions. The elementary teacher preparation curriculum should be able to focus on all the above qualities. This calls for identification of potential people to get into such a course and get the training so that they end up becoming effective and versatile teachers. For this to happen it becomes necessary to select the prospective teacher trainees based on their aptitude for teaching as well as the ability to communicate.

6.5 Executive summary: The elementary teacher preparation curriculum should focus in developing not only knowledge components, but also be able to develop skills necessary as discussed in the above model., and work for developing desirable qualities. It requires a careful planning and implementation.

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Appendix-1

Revised Bloom Taxonomy

Bloom's Taxonomy	
Original (1956)	Revised (2001)
Evaluation	Creating
Synthesis	Evaluating
Analysis	Analyzing
Application	Applying
Comprehension	Understanding
Knowledge	Remembering
Noun	Verb
<p>Thinking is an active process and verbs describe actions. Knowledge does not describe a category of thinking and was replaced with Remembering. Comprehension and synthesis were retitled to Understanding and Creating, respectively, to better reflect the nature of thinking for each category.</p> <p>One can be critical without being creative (i.e., judge and idea and justify choices) but creative production often requires critical thinking (i.e., accepting and rejecting ideas on the path to creating a new idea, product or way of looking at things).</p>	

Knowledge Dimensions

Factual Knowledge is knowledge that is basic to specific disciplines. This dimension refers to essential facts, terminology, details or elements students must know or be familiar with in order to understand a discipline or solve a problem in it.

Conceptual Knowledge is knowledge of classifications, principles, generalizations, theories, models, or structures pertinent to a particular disciplinary area.

Procedural Knowledge refers to information or knowledge that helps students to do something specific to a discipline, subject, or area of study. It also refers to methods of inquiry, very specific or finite skills, algorithms, techniques, and particular methodologies.

Metacognitive Knowledge is the awareness of one’s own cognition and particular cognitive processes. It is strategic or reflective knowledge about how to go about solving problems, cognitive tasks, to include contextual and conditional knowledge and knowledge of self.

Cognitive Processes

Knowledge Dimensions	Remembering	Understanding	Applying	Analyzing	Evaluating	Creating
Factual						
Conceptual						
Procedural						
Meta-cognitive						

Using this cross-impact grid, one can match objectives and activities to the types of knowledge to the cognitive processes.

Source: <http://www.uwsp.edu/education/lwilson/curric/newtaxonomy.htm> citing Anderson, L. W., Krathwohl, D. R. (Eds). (2000). A taxonomy for learning, teaching, and assessing: A Revision of Bloom’s taxonomy of educational objectives. Boston, MA: Allyn & Bacon.

Appendix-2

What is Critical Pedagogy?

Although there is no static definition of "critical pedagogy," as the term has undergone many transformations as educators have deployed new strategies to confront changing social and historical contexts, the term has traditionally referred to educational theory and teaching and learning practices that are designed to raise learners' critical consciousness regarding oppressive social conditions. In addition to its focus on personal liberation through the development of critical consciousness, critical pedagogy also has a more collective political component, in that critical consciousness is positioned as the necessary first step of a larger collective political struggle to challenge and transform oppressive social conditions and to create a more egalitarian society. As such, critical educators attempt to disrupt the effects of oppressive regimes of power both in the classroom and in the larger society.

Critical pedagogy is particularly concerned with reconfiguring the traditional student/teacher relationship, where the teacher is the active agent, the one who knows, and the students are the passive recipients of the teacher's knowledge (the "banking concept of education"). Instead, the classroom is envisioned as a site where new knowledge, grounded in the experiences of students and teachers alike, is produced through meaningful dialogue (see dialogical method). Critical pedagogy has its roots in the critical theory of the Frankfurt School, whose influence is evident in the emancipatory works of Paulo Freire, the most renowned critical educator. For Freire, liberatory education focuses on the development of critical consciousness, which enables learners to recognize connections between their individual problems and experiences and the social contexts in which they are embedded. Coming to consciousness ("conscientization") is the necessary first step of "praxis," configured as an ongoing, reflective approach to taking action. Praxis involves engaging in a cycle of theory, application, evaluation,

reflection, and then back to theory. Social transformation is the product of praxis at the collective level.
