The Primary Teacher

Volume XXXI Number 1-2 January and April 2006

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IMPRESSIONS

DID YOU KNOW

From The Editor's Desk

The Primary Teacher for January and April 2006 is a combined issue that addresses some relevant issues in learning and teaching that are of utmost importance. Issues at the forefront today are empowerment of the girl child, getting out of school children back in the system, teaching children about their rights and English language teaching.

Education for All has some broad educational goals that the government, educational institutions and educationists are all working towards. The NCERT journal disseminates to teachers and schools in India major issues of national interest related to the EFA goals conveyed through the writings of teachers and children.

The well thought out articles cover aspects like play based learning, the problems of stratification in class rooms, education for girls and social empowerment as well as aspects like English learning, Co-curricular Activities in education, learning through task based methods, and how to motivate children.

The section on "Impressions" looks at two aspects of great relevance to society: the issue of child abuse and how to protect a child; and about being contended. In the "My Page" section of Primary Teacher children bring to life through poems issues of conserving water, about ensuring sustainable environment solutions for future generations, and the plea of a daughter to be treated as an equal to her brother.

The NCERT hopes that "The Primary Teacher" will inspire teachers in our nation and also encourage them to send us their personal experiences in teaching and to set in motion a thought sharing platform. Learning is life long—it enriches us in every way and it is the teachers who mould and shape India's future generations.

We would welcome your feedback and suggestions, they are important to us.

Shabnam Sinha
Academic Editor

To the Contributors

The Primary Teacher invites you to write articles, field notes and reports for it. We want your honest deliberations on issues that impact elementary education. You may like to focus on issues that bother you and concerns that you are sensetive to and which you feel should be shared with other teachers working at the grassroots levels.

Some Dos and Don'ts:

- Use simple and non-technical language.
- Write in a friendly and communicative tone.
- Each piece may be in 3-4 pages.
- Keeping the clientele in mind, which is the teacher, please include information pieces that the teacher may not have access to in his/her place of location. You may include filed notes and your own preceptions about issues in research, development and training in the area of elementary education.
- Send two copies of the piece along with the soft copy on a floppy or a CD.
- Each article should have a short abstract along with the piece, in about 150 words.
- Try to write in a magazine/story/narrative format to make the piece user-friendly and interesting to read.
- Please send photographs and even illustrations prepared by you, if you so desire, to be incorporated in your piece.

1

Play Based Development of Children

*Romila Soni**

Play is the most important activity in children's lives. Play is not only a source of great pleasure for children but also the basis of all their learning and development. Theoretically there is a widespread acceptance of the idea that play is very important for a child; but at the practical level, play is too often replaced with worksheets and highly structured forms of learning. However, research verifies that play is a vehicle that enhances a child's total development. Play, with or without material, influences all aspects of development, i.e. social, emotional, physical, motor and intellectual.

This realisation has resulted in a growing demand from parents and professionals for meaningful activities and play material for young children. This paper is about learning materials and activities that can contribute to conceptual, perceptual, and language development of young children.

The Essential Benefits of Play

- Children learn a lot through play. Play has been said to be "nature's way of educating a child."
- Play is central to the network of learning. It makes learning deep, broad, relevant, thorough and imaginative.
- Play allows children to struggle, manipulate, explore, discover, and practice.
- Play enables children to understand and express their thoughts and feelings about the world.
- Play helps children to learn in a concrete form.
- Play nurtures development of learning processes like observation, experimentation and creativity.
- Play also enables a teacher to give individual attention and evaluate a child.
- Play teaches the advantages of harmony and the value of compromise.

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- Play increases muscle development and muscle control.
- Play also functions as a kind of language laboratory.
- Play makes learning enjoyable.

The child is naturally curious and she/he learns through doing. At the pre-school stage successful approaches are largely based upon practical experiences, play activities, and materials which are relevant to the development of children and suit their interests. By organising selected play activities and materials in school we can increase the educational power of children's play. The teacher needs to plan the play by providing the necessary supporting environment, materials, and equipment. Positive social relationships that develop among children during play are very valuable in their socio-emotional development.

Initiating Play Activities

Teachers should have a short meeting with the children before presenting them with new material or a new toy. The teacher can talk about the material's uses and can also acquaint the children with its limitations. Often the teacher can stimulate new interest in a play activity by introducing a degree of novelty in it. Rearranging the block area, setting up some signs in the dramatic play area, or introducing a few new materials will make something that has become an "old hat" an attractive new activity once again. At the same time, the teacher must be careful not to disrupt the flow of activities when intervening in play. One must be careful not to provide too much for the children—too much material, too much information, or too much structuring. Remember that the personality, interest, and developmental stage of children have a great influence on the type of play they enjoy.

Providing Enough Variety of Materials and Activities

The child needs a variety of play and play material to become well rounded and creative. The play material certainly influences the child's play.

Activities and learning material need to be changed or added from time to time, as children start feeling bored doing the same thing again and again. Activities and materials are tools for the teacher to use to teach and reinforce learning.

The child receives information about the world through all the senses—touch, sight, hearing, taste, and smell. Each of these has a direct channel to the brain, where information is stored up and built on. Material and activity which stimulate the senses by offering different sounds, patterns, colours, textures, and smells, are very rewarding. Material in which the child gets a response when he/she pushes a lever or presses a button, making something turn or jump out, teaches her/him about cause and effect i.e. if they carry out a certain action they will get a certain response. This encourages further exploration and promotes an understanding of how things function in the world.

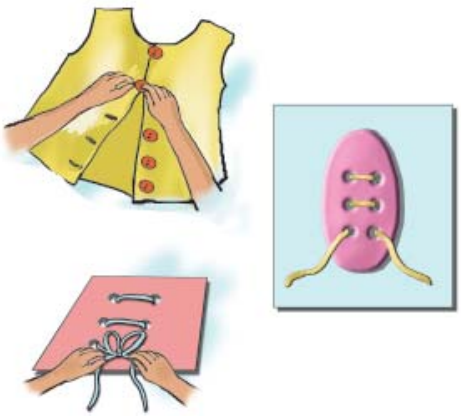
Table activities such as jigsaw puzzles, stacking and nesting toys, self-corrective puzzles, construction toys, looking at books together, hiding objects and memory games help increase the attention span of young children.

If the game is not in keeping with the children's level or it is too difficult, the children very soon go off on a tangent or start throwing the pieces around. In such situations, it is always better to move on to something else.

Then there are other materials like, fastening frame, locking device, puzzles (simple and complex), games like dominos, lotto, readiness material (self-corrective number puzzles, wooden, magnetic or plastic letters, templates, etc).

These are designed to promote small muscle development and eye-hand coordination and problem-solving skills. When children work in a group it enhances language development. Stacking and nesting toys, which can be arranged by size or nested one into the other, help develop mathematical skills. Construction sets like table blocks or interlocking blocks can be combined with other toys, to help children play out their own dramatisation.

Manipulative materials provide the child with many opportunities to develop and elaborate such concepts



as colours, shape, size, pattern and order. They necessitate the use of perceptual-motor skills, such as eye-hand coordination, visual discrimination, etc. Very frequently, children engage themselves in quiet, self-directed learning activities that are either self-correcting or open-ended in nature. Manipulative learning materials are also valued because they involve the child in the kinds of skills and thinking that provide the foundation for the development of reading, writing, and mathematical operations, as well as provide the child with gratifying successful experiences (Kuschner & Clark, 1977:123).

Setting up the Right Environment

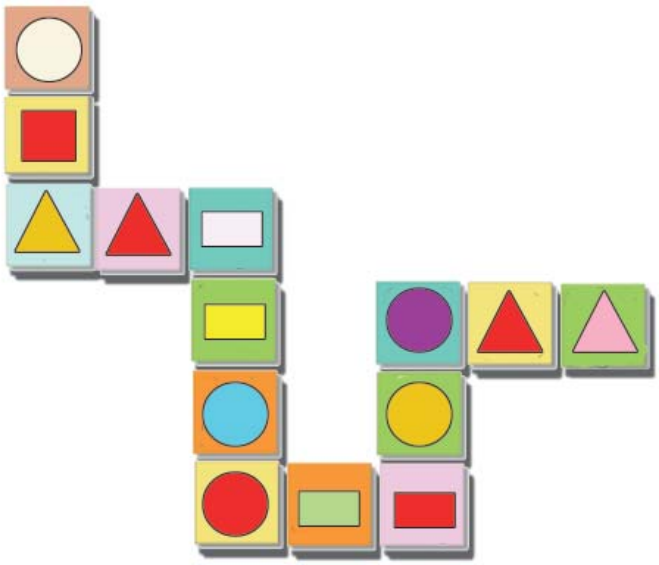
The environment the teacher provides to encourage play is just as important as how she conducts the activities and plays with the children. While planning, the teacher has to be practical as well as stimulating. The teacher should expand the child's world by creating a rich and relaxed atmosphere that will stimulate the childrens' imagination.

Learning materials can be used in a variety of ways, including child initiated and teacher initiated activities. When the child initiates the play, it may simply (but importantly) involve exploration. Children need to determine what tasks they want to pursue while playing with the materials. Teachers should be suggesters, modelers, and prodders. They should create a stimulating environment in the classroom for young children to explore, investigate, discover and experiment, so that the best possible experiences occur. These experiences may be utilised as an opportunity to develop language skills, and thinking power amongst children.

Play with material allows children to explore concepts

In order to sustain and extend the play, a teacher could suggest additional ways of working with the material. She could challenge the children with questions such as, "Have you ever thought about how the beads on the string would look if they were strung in a pattern such as two reds and then one blue, two reds and then one yellow, and so on?" In teacher initiated play, a teacher usually invites the child to play with the equipment, suggests ways of using the material and establishes rules for games like dominos. Both kinds of play, child initiated and teacher initiated are valuable. The selection depends on the situations and nature of children. However, it must be clearly noted that although learning materials themselves stimulate the children's imagination, the teacher's presence and guidance are needed to help the children focus on the concept being learnt through games and activities. For example, dominos can also

be used as blocks or for building corrals and fences. This is very important and adds great value to children's play. However, as play progresses, the teacher can show the children how to play dominos with the blocks.



This does not mean that teachers should always prescribe what children should do with the materials. However, there are both intellectual and emotional advantages in doing so. This also increases the bonding and positive relationship between the teacher and child.

Teachers also need to experience the materials they provide to children as it helps them to understand. Interaction with the material helps the teacher learn about a child's conceptual development. In this way he/she gets better acquainted with the children, their needs, their emotions, their desires, and their interests.

Selecting Materials

While deciding on materials for enhancing classroom learning, it is imperative that educators make wise and careful selections. The materials can either be developed by the teachers or procured from the market. However, the following points must be considered while selecting the materials:

1. The materials should be appropriate for the children's age level.
2. The materials should be appropriate for the children's level of development, ablities, needs, and interests.
3. The materials should be such that they encourage children's participation and involvement.
4. The materials should be simple.
5. The materials should be durable and safe.
6. The materials should be versatile enough to unfold creative and inventive potential of children.

Lastly, the effectiveness of the materials depends on the arrangement, display in classroom, organisation, care and maintenance. The children need to be provided with adequate tools and opportunities. The materials kept should be accessible to children. There should be open shelves for storage. Displayed materials should be changed periodically to sustain children's interest.

Children's play is naturally spontaneous and pleasurable but the teacher has an important role in children's play as observer, organiser, supervisor and evaluator.

2

Education, English and Social Empowerment – Banishing the Monster of Stratification from an Indian Classroom

*Jasjeet Kaur**

Universalisation of elementary education has often been seen as one of the esteemed goals towards the attainment of which the nation must work in complete solidarity. And indeed several sincere endeavours in this direction have registered optimum success. There has been a substantial rise in the literacy rate in the last two decades as a result of mass movements such as the total literacy campaign. The enrollment in various government run schools has also increased. But this spread of education has somehow failed to bridge the ever-widening gulf between the elite and the masses. It has left unaddressed, some of the cherished dreams and aspirations of the masses who should have benefited from these programmes. The aspirations of the underdogs of our society to enhance their standard of living or to seek an upward mobility through education are yet to materialise. Therefore, it is about time that we reassess and redefine our goals and objectives.

After six decades of Independence, our efforts at universalisation of education must not only aim at the spread of literacy but should seek to establish a classless society based on the equality of opportunity for one and all. Education should not be an end in itself but should be the means to an end. Education should be the means of social-empowerment of the weaker sections of our society. For this, we must ensure that quality education is not the privilege of a few but is accessible to all who cherish it. The standard of education in government run schools needs to be enhanced to such an extent that elites do not shy away from these schools.

Apart from the competent teaching of the scholastic subjects and personality development through the co-curricular activities, the teaching of English can contribute a great deal in this direction.

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Today, English has ceased to remain a monopoly of the privileged class. English, nowadays, is not only a mode of communication, but also an official language of administration, a medium of

instruction in higher education and professional courses as well as an important medium of creative expression. English has therefore become an integral part of the Indian social reality to such an extent that proficiency in English has almost become synonymous with 'being educated'. Competence in the English language goes a long way in enhancing the self-confidence and self-esteem of a learner as it not only increases his/her capacity to articulate his/her own thoughts and ideas, but also adds to his/her potential to comprehend the world around himself/herself. Hence, it is very important that certain steps are taken urgently for efficient teaching of the English language to the underprivileged learners in government schools, especially at the primary school level, where a single teacher is expected to teach all the subjects, including English, regardless of his or her own poor command over the language.

A teacher who has to rely heavily on help from colleagues for structuring a simple sentence in English can scarcely be expected to develop English language competency in the students. For example, in a particular incident, a teacher struggled hard to find a synonym for the word "progress" in a vocabulary class. In another shocking incident, a teacher wrote a leave application, mentioning in the subject that it was an application for sick leave; however, in the body of the application, an urgent piece of work at home was stated as the reason for the required leave. To prevent these alarming incidents from becoming a recurring phenomenon in schools, and the unfortunate teachers becoming a source of embarrassment to the authorities, ideally English teachers should be appointed to teach English at the primary level as well, very much like the upper primary or higher secondary levels.

Alternatively, the existing faculty can be given the opportunity to improve their own knowledge of the language through regular in-service training and workshops.

The next important hurdle that one must endeavour to overcome pertains to the background of the learners. One must keep in mind that a substantial number of the students joining these

schools are first generation learners. The parents of these students are not only illiterate but seem to have almost nothing to do with the education of their wards. Their reason for sending their children to school could be anything from the free mid-day meal to the free woollens distributed in winter or simply entrusting their children to the care of the school teacher while they are away at work. In such a scenario, the entire responsibility of education, along with the responsibility of teaching this foreign language to these students, is that of the teacher and this duty can be best performed as a collaborative effort between the school and the community.

Firstly, since most of the students are not likely to be familiar with the English language, it should be made simple and interesting for them. English should be taught not only within the four walls of the classroom but also in real life situations. For example, in the playground, simple instructions in a particular game may be given in English. Likewise, in the co-curricular activities class a simple English song or prayer can be taught to them. Also, the students should be encouraged to listen to the English news on the radio and television; if possible, even during schooltime as language can be easily acquired from mass media.

Besides, participation must be sought from the community as language can be best learnt if its usage in the community is internalised by the students. For this, cultural programmes can be hosted by the school, wherein educated residents from the vicinity of the school may be invited to the school and students should be encouraged to interact with them. Co-curricular activities such as debates and creative writing competitions can be organised, wherein students can interact with public school students who are proficient in the English language. But before all this can be done, care must be taken to reduce the burden of the English syllabus on the classroom teacher.

Hence, English language which has become a means of social empowerment in the present context should no longer remain the neglected part of primary school education. For this would go a long way in putting an end to class stratification and pave the way for the upward mobility of the downtrodden.

3

Early Childhood Care and Education – A Perspective

*Padma Yadav**

Universally, the early childhood years are expected to lay the foundation for inculcation of basic values and social skills in children. It is believed that these values are imbibed from the family as *sanskaras* and the scriptures advocate an attitude of *lalayat* or indulgence as the desirable mode of child rearing at this stage.

Consequently, in the past, much of the early care and education of the child was informal, within the family and largely through grandmother's caring practices, stories, and traditional infant games, handed down from one generation to the next. This wealth of developmentally appropriate childcare practices is gradually becoming extinct in view of more modern provisions for children and changing social realities.

With growing urbanisation, and an increase in women's participation in the work force across the country, among all socio-economic groups, there has been a sea change in the social structure and practices in the last few decades. A significant indicator of this change has been the emergence of the nuclear family – a change which has converted child rearing from what was traditionally a

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shared responsibility into the sole responsibility of the young parents. While in the higher income brackets, children are often left with paid, surrogate caregivers, in the lower socio-economic communities the responsibility of caring gets loaded onto the older sisters, often keeping them out of school and robbing them of their childhood. It was this changing social context, over the years, which laid the seeds for the introduction of the concept of Early Childhood Care and Education (ECCE) in the country.

Child development is a continuous and cumulative process and early experiences have a lasting impact on later years.

Generally, early child care programmes are known by various names — Early Childhood Care for Survival, Growth and Development (ECC-SGD); Early Childhood Education (ECE); Early Childhood Care and Education (ECCE); Early Childhood Care and Development (ECCD); and Early Childhood Development (ECD).

They are also known as Day Care Centres (DCC); Child Care Centres (CCC); Nursery Schools; Kindergarten Schools; Pre-schools; and Pre-primary Schools. There is no uniformity in the name, content, or scope.

In India, early childhood is defined as the period of a child's life from conception to eight years. It includes early stimulation programmes through creches/home stimulation for 0-3 year olds, Pre-School/Early Childhood Education Programme (ECE) for 3-6 year olds, and Early Primary Education Programmes as part of primary schooling for 6-8 year olds.

The National Policy on Education (NPE) has recommended a holistic approach of providing ECCE programmes which should aim at fostering nutrition, health, social, physical, mental, moral, and emotional development of the child. It has clearly recommended that ECCE programmes should be "child oriented, focused around play and the individuality of the child. Formal methods and introduction of the 3 Rs will be discouraged at this stage".

Research provides evidence of the short and long term benefits of good quality ECCE programmes, particularly for children from underprivileged environments.

Investments made in early child development and learning have a positive impact on formal education by sustaining him/her in school for a longer period of time.

The child's brain has remarkable capacities for self-protection and recovery. The loving care and nurture

children receive in the first few years or the lack of these critical experiences, leave lasting imprints on young minds.

Consistent with the thrust of the National Policy, early childhood education programmes are being qualitatively and quantitatively strengthened in the public, private, and voluntary sectors.

In India all three sectors – public, private, and voluntary – are actively engaged in providing early childhood education experiences through a variety of modes and of varying degree in quality.

The following ECCE programmes are in existence —

- Integrated Child Development Services (ICDS).
- *Balwadi*s run by voluntary agencies with government assistance.
- Pre-primary schools/classes run by commercial agencies, state governments, and municipal corporations.
- ECCE centres run under the scheme of assistance to voluntary organisations (VAS) by the government.

The coverage of children in the age group 3-6 years, receiving Early Childhood Education, is 20.95 per cent.

Programmes	Number of Centres	Beneficiaries Coverage
ICDS	744887*	23 Million
Rajiv Gandhi National Creche Scheme for the Children of Working Mothers	22038** 38533	0.55 Million@
***Pre-primary School		(1,94,000) Approximately 0.02 Million
NGO Services for ECCE		Varying from 3-20 Million***
Private Initiatives		10 Million approximately (2001)****

* Ministry of Women and Child Development (as on 30th September 2005)
** Ministry of Women and Child Development – website (www.wcd.nic.in)
*** Early Childhood Care and Education – An Overview (Ministry of HRD, 2003)
**** Report of the National Focus Group on ECE appointed by NCERT under initiative of National Curriculum Framework Review, 2005

(Source: Lok Sabha, starred questions, 2004 reported in www.indiastat.com)

There is wide diversity in terms of curriculum, infrastructure, financial allocations, staff quality, clientele, etc. This diversity is evident not only programme-wise, but also within the same programme from one region to another.

Early Childhood Education (ECE) practiced today is not in keeping with the aspects which were recommended by the National Policy of Education.

Curriculum-wise most ECE programmes have become a downward extension of primary schools, where the basic philosophy and methodology of ECE are not being practiced. Children are required to sit in one place, in slouched positions for writing, which can adversely affect their posture and physical development.

The staff, in many cases, is not adequately qualified or trained in ECCE and does not have the basic knowledge of child development.

In urban settings, pre-schools are generally located in cramped, poorly ventilated areas, sometimes even in *barsati*s or rooftops, with no safe, open space for children to play in. In rural areas though there is no dearth of space, it does not meet the needs of ECCE i.e. trained manpower, equipment, and material are the major issues. There should be some system of licensing or accreditation of pre-schools/ECCE programmes. Certain prerequisites and standards should be formulated according to the contextual realities of our country to ensure some uniformity within the diversities with respect to different aspects/components of an ECCE programme.

In the present scenario, parents, policy makers, educationists, paediatricians, health departments, child welfare departments, and the media, all need to get together to address the problems of ECCE. The welfare department and the media also need to get together to address the problems of ECCE.

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4

NFE in Rural Areas – An Experiential Account

*Harpreet Kaur**

NFE, Non-formal Education, in a semi urban village area has aspects of uneven development. It has communal, caste, and political colour. As a teacher the experience of applying innovative educational approaches to make learning more meaningful was enriching, real, and satisfying. The role of NGOs and the community is critical in starting an sustaining educational programme. However, how the programme is to be continued, and how education is to be conceptualised, remains masked. This is where the approaches deviated from the community's participation, needs, and demands.

I decided to choose a village for my block placement after much introspection. It was my first tryst with NFE and education in a village area. I found myself a total novice to the realities and status of education in Indian villages. At the end of my block placement I wished that I had chosen a school internship for my teacher training programme. Experience in a village was more enriching, real, and satisfying than in the corporation schools in Delhi. It was more rewarding because of the presence of an NGO as well. The NGO had already created a niche in the form of NFE centres, convincing the villagers, and finding the teachers. Since the NGO had community partnership approach for the development programmes in the village, the communication bond was strong with the villagers.

Placement

Village D and adjoining villages (in a 10 kilometre radius) lie in Uttar Pradesh, 50 kilometres away from Delhi. Industrialisation has swamped the stretch of villages. The government's thermal power station was the first one to come. It was followed by an international brand, a soft drink company. These days an Indian tycoon

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in collaboration with a foreign millionaire has announced the start of a project too.

It is therefore, often in the news due to the political tussle over the local issues of development and industrialisation.

Though the development (especially economic) is considerable, it is lopsided.

Uneven Educational Opportunities

The villages had government schools and public schools. The latter were doubted for their recognition status. The NGO runs two types of NFE centres— literacy for adult women and for children from 5 to 14 years of age. A survey of NFE centres revealed that women from both the communities joined the literacy camp. In most of the villages, it was successful.

However, centres for children had children from one community only. Within the community there was stratification, with mainly the children of the petty farmers or craftsmen attending. It seemed that there was streamlining of who went to which school. Absence of one community, the economically well off people, indicated that they went either to government schools or to private schools if at all they went to school.

Within the community there was uneven access to education. In some cases the stratification was evident in the housing pattern, in cases where both the communities resided in the same village. The village was first divided community wise. Educated people thronged the approach area of the *mohalla*. As one moved further there were hawkers and butchers. This part was hardly visited by any ANM (auxiliary nurse and midwife) for regular vaccination. The

NGO offered to start centres for these areas. There was another remote part, the *harijan basti*, whose children and women were denied entry by these localities (whom the NGO approached).

The social worker told me that these areas have been declared as 100 per cent literate by the government. But the situation is far removed in reality. People were keen on education,

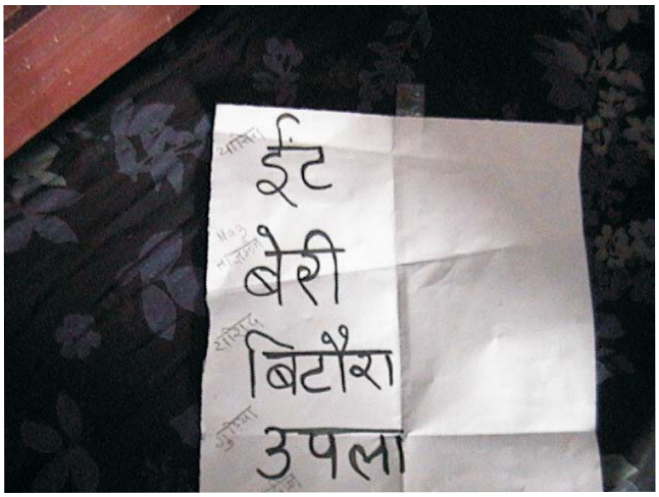
especially the women and children, who hardly moved out from this area. During the afternoon, there were hardly any men and just a few young men. Localities reported that though people came to start a centre for education, nobody continued or sustained. They demanded assurances and most of them were ready to pay[1] too.

Interestingly, at all the centres both boys and girls came but only a few boys according to reports, continued the education in mainstream schools.

Educational Experience

The community mobilised effort had a strong impact on the initiation of the centre, in the above-mentioned area, which came from a person from the same community. The need was put forth to the social worker in a SHG (Self Help Group). His presence helped to gain the trust of the people. They were willing to talk to us and by the time I finished my placement, the NGO was preparing to start four new centres[2] in the locality! The general population also stated a need for someone who could teach them.

Everyone, even in other villages, unanimously felt the keenness for education. The *sarpanch*, teacher or a local villager showed interest in starting the center and offered space. They maintained access[3] and presence of students and teachers. The teacher was either from the same village or from a nearby one. Interestingly, all the teachers were from different communities and showed a willingness to teach minorities.



The teacher's background, according to me, was critical to the functioning of the centres. She was one of them, even if in most of the cases she belonged to another community. These teachers, unlike their urban counter parts, did not make fun of child's use of a local language,

[1] A token amount decided by an NGO for books, notebooks, chalk, blackboard. The salary of the teacher was managed by the NGO. In most cases parents did not give money consistently.

[2] Number of students in each centre either for adult women or children was 25. In this case they reported having 50 women and children from the same locality.

[3] Commuting was a problem in village areas. There was no consistent means of transport. Married women and in a few cases even adolescent girls were stopped from using bicycles, which further curtailed their movements.

appearance, and frequent absence[4] from the centre. Therefore, I believe that these teachers had potential to include the local milieu (language and culture) in the curriculum to make learning more meaningful. In an exercise we decided that children would choose words they wanted to write. The use of the words 'Eeint', '*Beri*', '*Bitora*', '*Upla*', left the teachers surprised but not offended. I requested them to introduce the words (their own names, their parents' name or anything they liked) in the class.

Since the teacher was friendly, the children accepted my presence happily along with the social worker who visited them often. In this case, making a bond with the children, doing activities with them was easier than it was in an urban corporation school. However, it was not that the teacher did not hit or rebuke them—she was accepted as an extension of their elders at home.

As a researcher, giving an opinion on the centre's functioning and as a teacher participating in teaching and learning, the overall experience was very satisfying, enriching, and challenging. It offered the potential to learn and apply more than that offered by an urban public or corporation school in Delhi.

Post Centre

The transition from the NFE centres' concepts in education to mainstream schooling was not that smooth. I believe students required scaffolds for continuing education. In this case, even qualified teachers need training. In case of a village it was eight years since a teacher was running the centre. But the agency still could not find a better counterpart. It was evident that 'what after the centre' was a question that even the literacy centre faced. There were no means of 'continuing literacy', 'post literacy', and remedial classes that students required, after NFE centers.

Mostly, villagers agreed on the need for education but there were a range of responses. A group of women who were economically satiated were reluctant to acknowledge the need for literacy in their life. Another group of

[4] When we went to the village, villagers were busy harvesting rice. So the teacher and students were frequently absent from the center.

women wanted to read the *Ramayana* so they were keen to acquire literacy skills. There was another who believed literacy would fetch them some work and that they would be well off. I had no argument to convince any of them and felt clueless about the use of literacy in their life. I did not feel like convincing them when they felt it was of no use to them. I felt the need for a community-mobilised use of literacy and education—where new uses could be added (apart from reading the name of the destination on a bus that hardly comes to a village!). For example in the same village, the young adolescent girls told me it is important to read and write. One of the uses they mentioned was to 'dial a telephone number'.

In another village, women shared their views on news items in the Hindi newspapers. It was enriching for me to know their opinion and satisfying for the women to use their literacy skills.

Some women after acquiring literacy skills opened bank accounts, and made SHGs to avail loans. Literacy stood clueless, in isolation from their community needs and so did the curriculum content. But the potential is immense, waiting to be tapped.

5

Empowering the Children...helping them Soar with Self-esteem

*Sheelu Aggarwal**

Whether it is adjusting to a different teaching style, juggling academic demands, or coping with peer pressure, most children find themselves facing difficult situations at school sometime during their academic career. While parents can't (and shouldn't) shield their children from these challenges directly, they can counsel them; the way a parent responds can make all the difference.

Studies have found that children whose parents promote the child's self-esteem tend to do better in school, are less likely to succumb to negative peer pressure, and have the confidence to face life's many challenges. Dr. Robert Brooks, a clinical professor of psychology at Harvard University Medical School and author of *The Self-esteem Teacher* says, "One of the most important things a parent can do is to be empathetic and to see the world through their child's eyes. This is a basic skill parents need to promote because it will determine what you say to your child when they are having a problem." The best thing parents can do if a child is experiencing difficulty is to recognise their child's concerns and talk about them with the child. You need not promise that everything will be just fine. But do remind them of instances when they were nervous and things turned out okay.

It is advisable for parents to work together with a child's teacher to recognise what is unique about the child and build on his/her strengths to help him/her develop self-confidence.

Bringing Brian out of the Bushes

In his book, Dr. Brooks has shared one of his experiments where he adopted the same course of action to coax Brian Murphy out of the bushes and back to his school books. "I met with him and found out that he thought what he did

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best was to take care of his dog." Brooks conveyed this to Brian's principal, who was prompted to develop a special

"Pet Monitor" position for Brian, where he helped take care of the new school rabbit and all the other school pets. Soon Brian was coming to school ten minutes early to take care of the animals.

"His teacher then suggested that since the school library didn't have any books on pet care, the child should write his own book. Initially, he didn't think that he could do it, but together they wrote a book, had it bound, and put in the library. By the end of the year, he had the confidence to give a school lecture on how to care for pets."

A perfect example of how giving a child responsibility can help him to overcome any obstacle. When parents and teachers get together, there can be amasing turning points in a child's life.

Parents should serve as effective guides, they need to build a child's self-esteem by developing discipline, a sense of accountability, and caring for others. "Self-esteem is based on accomplishments," explains Dr. Brooks. "Building self-esteem is not about inflating a child's ego with praise."

The following are several steps parents can take to build their child's self-esteem and teach them the tools they need to become successful, confident individuals.

Accept children for who they are, "Recognise that every child is different and appreciate that there are many paths to success," advises Dr. Brooks. "Accepting them for who they are and not who we want them to be will change the way you interact with your child." Celebrate their unique qualities and refrain from comparing your child with siblings, friends, or even yourself. Such unconditional love is the key to promoting self-esteem and open communication. You may not always agree with what your children are saying, but you need to give them an opportunity to say it and to accept them and their feelings.

Let the child know from day one that you love him/her no matter what happens, let him/her know that you'll listen without judging him/her and that you'll always respect him/her. And you'll find that even after reaching an age when he/she wants to be independent, he/she will come to you to talk.

Teach Responsibility

Giving children responsibilities helps them realise that they are capable. The

most important thing a parent can do to help build children's confidence is to let them take on responsibilities. Parents need to make sure that children are held accountable for their work and know what is expected of them upfront.

Make it clear what they are expected to do and praise them for a job well done. But, don't be so particular if there is a lump in the bed or some crumbs in the corner... what's important is that the child has accomplished something.

Early on, parents can give children responsibilities around the home to let them know they're contributing to the family. Older children should be encouraged to get involved in charitable work. Dr. Brooks explains, "Involving children may take longer to get the job done, but it sends a message that you have faith in their abilities. It gives them an opportunity to shine and facilitates a feeling of contributing to the world."

It is also important to let children know they're responsible for their own actions. If, for example, they spend all their allowance on the first day, they will have to go without a special snack or toy that they may want later in the week. Set rules appropriatly to the wrong doing and enforce them. For example, if he/she neglects to bring his/her clothes to the laundry room, he/she won't have clean clothes that week.

Teach Problem Solving Skills

Children with high self-esteem feel they have some control over what is happening in their lives. They're confident that they have the ability to solve problems and make decisions. Parents should share their experiences as children and students with them. Parents can help build their children's skills by giving them choices and involving them in discussions about how to solve specific problems.

Let children come up with solutions for every day problems. It will give them an opportunity to be responsible; often they feel more committed and motivated if we ask them for solutions to adult problems.

Applaud Effort, not Ability

While there is nothing wrong with an occasional heartfelt exclamation of "What a smart boy you are!" to show your support and attention, psychologists have found that lauding a child's ability can have the opposite effect of what you intend. The most important thing adults can do to build a child's self-esteem is to praise their effort. Children must be taught the value of working hard and strategising when dealing with academic challenges.

A recent Columbia University study of 412 fifth graders found that praising children for their intelligence or ability can backfire. It can make them highly performance oriented and vulnerable to setbacks. Children commended for their ability came to believe that intelligence is a fixed trait, so when they failed they felt they lacked the competence to

succeed. These children are much more worried about failure and avoided taking risks. Meanwhile, children commended for their effort concentrate on learning strategies for achievement and mastering new challenges. When children who were praised for their hardwork performed poorly, they showed a sense of control and determination. To them, failing meant they hadn't tried hard enough and they were determined to learn how to do better next time.

So, the next time your daughter or son brings home an "A" on a project, try saying, "Wow, you really put a lot of work into that. I'm impressed!" instead of, "Wow, you're such a good student!". She will begin to see her accomplishment as mastering a skill rather than displaying an innate talent.

Help Children Learn from Mistakes

Parents need to teach children that mistakes are an important part of learning and growing. It may start to sound hollow to keep saying, "Well, you did your best," but it makes a difference. That's how one learns to deal with life. It's the child who can pick himself up after a monster failure who is successful later on.

Parents can help their children learn from setbacks by showing them how to solve a problem and by avoiding negative or demanding comments. If your child gets a bad grade in a test, don't tell him he didn't try hard though. Instead ask him why he did poorly. Allow him to recognise the factors he can change next time (e.g. I failed the exam because I didn't take good notes), and help him figure out what will help in the future.

Even if your child isn't chosen for a varsity sport or does not get the lead in a play, he should be praised for improving or trying in the first place. "It's so important to be encouraging and to acknowledge when something is not easy for your child," says Dr. Brooks. "You want your child to treat mistakes as experiences to learn from rather than feel defeated by them."

Be There for Them

Parents' involvement can make a great deal of difference in the child's life. One

of the things children want most is our time, and in today's busy world, that is the hardest for parents to give. When parents are involved in their child's life, it lets the child know he/she matters.

Self-esteem comes from a supportive primary relationship. If

parents can spend just 10 to 15 minutes doing something together with their child, the child begins to look forward to that.

You can see the biggest difference in the self-esteem of children who come from homes where they are not the top priority. Put it on your calendar to spend time with your child or children. There is no question that is the essence to helping a child develop into a successful adult.

According to the National PTA of USA, alcohol use, violence and antisocial behaviour decrease as parental involvement increases. In addition, when parents are involved in their children's education, they have higher test scores, better attendance, and complete homework more consistently.

Children want to know that you are interested in what they are doing. If weekdays are too hectic, offer to coach your son's football/cricket team or try to make it to all your daughter games on weekends. Says Dr. Brooks, "I am a firm believer that to promote a child's self-esteem, you need to build in special time with your child. Do something alone with each of your children to really get to know them. And let them know they'll have your undivided attention. Don't answer the phone during their special time." Your child will know that no matter how busy things get, there's a set time to talk and discuss issues with you.

"We must never underestimate the power of even one adult to guide a child's life in a positive direction," Dr. Brooks observes. "Believing in a child and providing them with opportunities that reinforce their feeling of self-worth is a truly wonderful gift we can offer. It's our legacy to the next generation."

6

In-service Teacher Education for Primary and Secondary School Teachers

*S. D. Sindkhedkar**

The paper focuses on the Teacher Oriented, School Oriented INSET Programmes

Education is the main course, which affects the quality of life. It gives real meaning to democracy in which a common man participates and contributes effectively to change and development. Education on which human progress depends on to such a large extent is being given a major consideration—all factors, which determine the quality of national development. Teachers occupy an unchallengeable position in the educational process. They play a vital role in the all round development of the personality of children by exercising a personal influence. Every country develops its system of education to meet the challenges of changing times. Education plays a vital role in the development of human potential. Taking into consideration the challenges of the near future, the Government of India has published its National Educational Policy in 1986 to meet the challenges. Many innovative and new ideas have been included in the policy. The policy advocates equal opportunities to all, both in terms of access to education, conditions of success, common education structures, a national curriculum framework, minimum levels of learning for each stage of education.

Education in the modern age seeks to preserve, transmit, and advance knowledge. It is committed to bring about change for the betterment of society. A number of educationists have laid emphasis on in-service education as essential for professional growth. The Dictionary of Education (1959) has mentioned that in-service education refers to all activities on the part of

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employed teachers that contribute to their professional growth and qualifications. Cane (1969) defines "in-service education" as all those activities and courses, which aim at enhancing and strengthening the professional knowledge, interest, and skills of serving teachers. In-service education is thus, a programme of activities aimed at the continuing growth of teachers and educational personnel in service (Buch-1968). In-service education aims to stimulate knowledge and improve technical skills (Sen-1966). The need for in-service education for teachers was felt in 1949 when the University Education Commission stressed the need for in service education and observed that our school teachers learn whatever subject they teach before reaching the age of 24 or 25 and that their further education is left to experience which in most cases is another name for stagnation. The Education Commission, 1964-66 has also highlighted the significance of in-service education for all types of professions in this manner. It is widely accepted that in-service education is the continuity of pre-service education. A teacher has to be a life long learner and

an in-service teacher education is a continuous process, which never comes to an end during the professional life of a teacher. The need for in-service education for teachers was recognised as early as 1904 in Lord Curzon's "Resolution on Educational Policy" where it was stated that every possible care should be taken to maintain a link between the training and the school and so that the student on leaving the college may not neglect to practice the methods which he was taught. In September 1961 a new autonomous organisation—the National Council of Educational Research and Training was established. The major task before the NCERT has been to improve the quality of education in the country. NCERT also organises in-service education activities for teachers and teacher-educators at primary and secondary levels. The NCERT usually provides in-service education for a longer duration say about 4 to 6 weeks in different subjects. A major landmark in the organisation of in-service education for the educational practitioners concerned with primary education was the establishment of the State Institutes of Education in 1964. The chief objectives of the SIE were to provide in-service education to primary teacher-educators, supervisors of primary schools, and primary teachers. Central Government, State Government, and non-governmental organisations are all engaged in providing in-service

education to teachers. In-service education of teachers is an important component of the total scheme of teacher education as the teachers have to keep themselves updated in knowledge and also skills. In-service programme means to keep the trained teachers abreast with current modern ideas of education and also problems and issues. In this regard there should be continuous programmes may be in the form of workshops, seminars, or summer courses for at least for three weeks for each teacher in a year. Every teacher should undergo training once in five years. The Government should take the responsibility of providing training to all the teachers.

Aims of in-service teacher education and Training of Teachers:

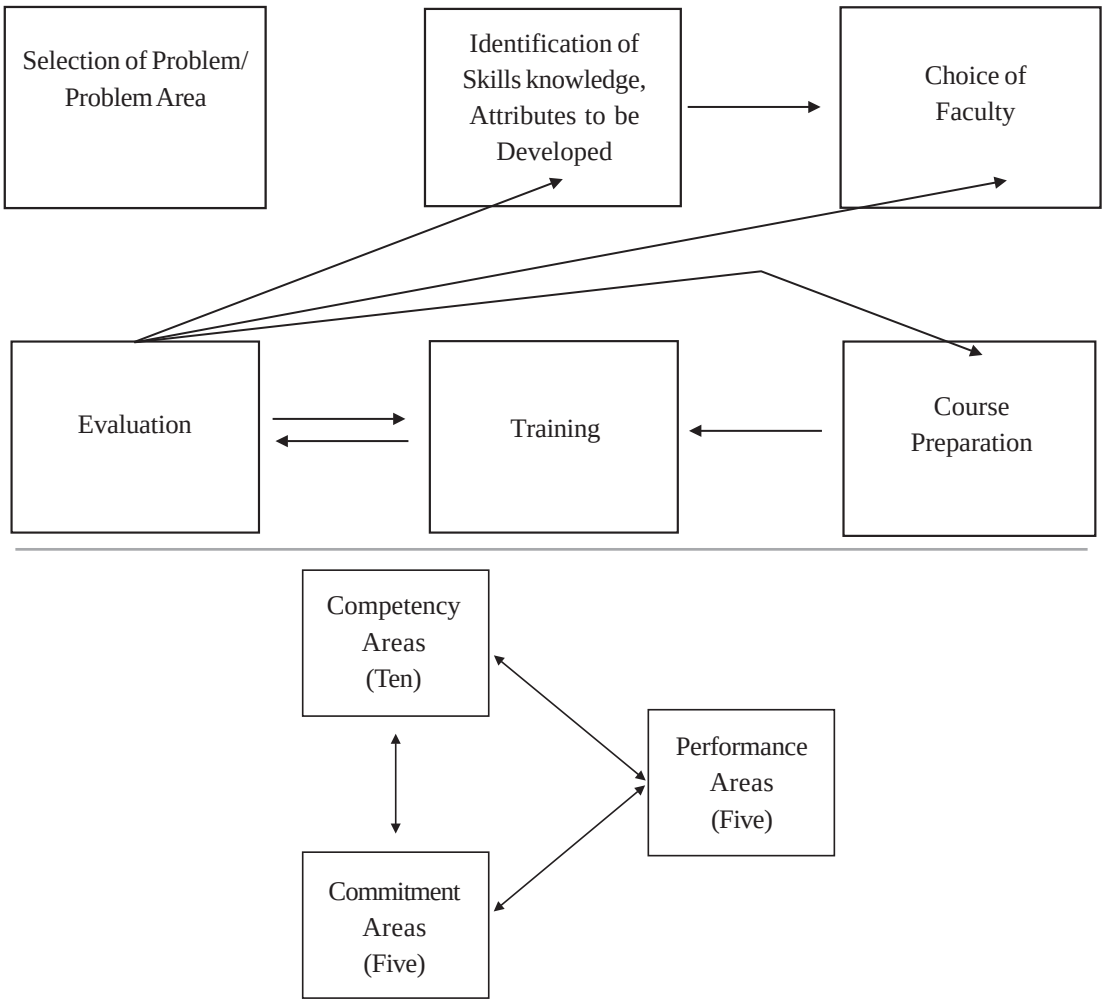
1. To update knowledge and skills of teachers.
2. To give teachers an opportunity to enlarge and improve their knowledge and educational capacities in all fields of their work.
3. To make teachers aware of new challenges facing the society and to enable them to prepare their students.
4. To enable teachers to gain additional qualifications and to develop their special talents and dispositions.
5. To raise the cultural and professional standards of the teaching force as a whole and to strengthen its innovative vigour and creativity.
6. To fulfil the gaps of the pre-service education, remove its inadequacies, and make it more realistic.
7. To prepare a forum for teachers for exchange of ideas and experiences and to enable them to integrate values and environmental awareness with the subjects they teach.
8. To equip the alternative teachers with job specific skills and competencies.
9. To empower them to realise the objectives of school curriculum in the light of a changing social scenario.
10. To acquaint them with new international experiments and innovations in education and enable them to incorporate their findings in the system in case they are found to be useful.
11. Last but not the least, to prepare them as professional teachers.

In-service Teacher Education Institutions:

1. State Institutes of Education and District Institutes of Education.
2. State Institutes of Science.
3. State Institutes of English.
4. Extension Services Departments.
5. State Directorates of Education.
6. Voluntary Organisations.
7. NCERT (National Council of Educational Research and Training).
8. NCTE (National Council for Teacher Education).

9. UGC (University Grants Commission).
10. NIEPA (National Institute of Educational Planning and Administration).
11. Professional Organisations of Teachers.
12. International Educational Organisations.
13. Indira Gandhi Nationals Open University.
14. Yashwantrao Chavan Maharashtra Open University, Nasik.

A Competency-based and Commitment-oriented Curricular Framework Includes three interrelated and interactive dimensions as follows



Competency Based and Commitment Oriented* Teacher Education for Quality School Education		
Competencies	**Commitments**	**Performance**
• Contextual • Conceptual • Content • Transactional • Related to other educational activities • Developing teaching-learning material • Evaluation • Management • Working with parents • Working with community and other agencies	• To the Learner • To the Society • To the profession • To excellence • To basic values	• Classroom • School Level • Out of School • Parents related • Community related

**Competency Based and Commitment Oriented Teacher Education for Quality School Education—in–service Education (NCTE by Prof. R.H. Dave)*

In-service Educational Programmes

Programmes for In-service Teacher Education are:

- Seminars
- Extension Lectures
- Refresher Courses
- Workshops
- Study Groups
- Conferences
- Experimenting
- Professional Writing
- Discussion and Debates

The Role of Educational Technology an In-service Education

In the absence of clear-cut policies and priorities for in-service education, the following measures may be taken to make in-service education more effective and relevant:

- Identification of needs
- Choice of resource person
- Changes in methodolgies
- Use of educational technology
- Evaluation and follow-up
- Attendance of teachers to be made mandatory
- Project on single teachers schools
- School level INSET programmes
- Use of mobile units
- Use of computer, radio and television
- Development of resource

Suggestions for Improving In-service Education

- Need for expanding facilities.
- Well-planned programmes.
- Incentive to teachers.
- Cooperation of various agencies.

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7

A Study of Dropout Children of MCD Primary Schools of North District of Delhi

*B.K. Pal**
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Abstract

The constitution provides for free and compulsory education for all children up to the age of 14 years. Taking this into account, the study of dropouts at the primary level has been carried out in the 17 M.C.D. Primary Schools randomly selected out of 170 M.C.D. schools falling in the civil lines zone of North District of Delhi. To achieve the purpose, a survey proforma regarding the dropout children was developed and administered in the respective schools of the study area. Efforts were made by the investigators to know the reasons for children leaving school before completing the academic session. This study presents the causes of children dropping out. The findings will help educational planners, administrators, and teacher educators in analysing the reasons and taking some measures.

With the 86th Constitutional Amendment Act, education has now become a fundamental right. As per this act, children falling in the age group of 6-14 years must have access to free and compulsory education.

Significantly, as per the latest data, 39 per cent of children still drop out from schools after studying upto Class V and 55 per cent before reaching Class VIII. Thus, the target of providing elementary education to all children still remains unfulfilled. Due to low level of teaching, inadequate school infrastructure, teacher absenteeism, large number of teacher vacancies, lack of use of TLM, additional work on teachers, and inadequate funds, etc. are responsible for the high rate of dropout children. The target cannot be achieved unless children are brought to schools from the poor socio-economic strata and the parents' perception becomes more positive towards the importance of education. The education system should provide

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quality education and develop creativity among the children. The aim of education should be to build character and inculcate human values and positive attitude among children.

Programme Related to Dropouts

The policies on education in 1968, 1986, and 1992 have strongly recommended strategies for the implementation of the universalisation of elementary education. For this, a number of programmes have been launched over 55 years of independence. For instance:

(i) Operation Black Board (1987) for improving human and physical resources in schools.

(ii) Teacher Education Scheme (1987) for teacher training and providing academic support.

(iii) District Primary Education Programme (DPEP, 1994) for achieving universal primary education.

(iv) Mid-Day Meal Scheme (MDM 1995) to enhance nutritional status of children.

(v) Janshala Programme (1998) for community participation in schools.

(vi) The Education Guarantee Scheme and Alternative Innovative Education (EGS/AIE, 2000).

(vii) Sarva Shiksha Abhiyan (SSA, 2001-02) for achieving UEE i.e. to reach every child in every village of the country in a prescribed time.

Study Area

The present study of dropout children at the primary level is focused in the civil lines zones of North District of NCT, Delhi. The total population of the zone is 5,26,476 out of which 2,86,743 are males and 2,39,733 are females. The zone is densely populated with 12,996 persons living per square km. The literacy of the zone is about 83.0 per cent, higher than the overall literacy of the district i.e. 79.88 per cent (2001).

The zone has 170 MCD primary schools including boys', girls' and co-education (2004). The total students enrolled in the MCD schools were 72,505 and the number of teachers working in the schools were 1636 only (2004).

Need of the Study

The constitutional provision is to provide free and compulsory education for all children upto the age of 14 years. The democratic society implies the availability of equal opportunities to all people, irrespective of caste, creed, sex, and religion to develop their personalities.

Significantly, it has been observed that a large number of female children in the zone are either yet to be brought into the fold of school education or drop out sooner or later as compared to boys owing to their socio-economic and cultural reasons. The children, that enroll in the various MCD primary schools in the zone, basically belong to the poor socio-economic background. Therefore, the dropout ratio is comparatively higher in the zone i.e. 32.90 per cent.

In view of the above facts, the civil lines zone has been selected as the study area in terms of children leaving schools early, without completing their primary education.

Operational Definition of the Term 'Dropout'

The term 'dropout' means pupils who leave school during any part of the academic year without completing the class in which he/she is studying. In this

regard, the Hartog Committee defined it as 'the pre-mature withdrawal of children from school at any stage before the completion of primary course'. American studies have defined the term 'dropout' as 'any youth who for any reason, except death has left the school before completing the requisite grade from the school and without transferring to another school'.

The problem of enrolment and dropout at the primary school level is very vital in the field of education. Therefore, it has drawn the attention of educational planners, administrators, and parents from time to time.

Objectives

- To know the year-wise and school-wise dropout ratio of North District of civil lines zone.
- To find out the socio-economic status of the parents and its co-relation with the ratio of dropouts.
- To study the causes of non-enrolment and dropout ratio at the primary stage of the North District of civil lines zone.

Methodology

A survey proforma regarding the dropout children was developed for this study. Data was collected during the months of November and December 2005 in the 17 MCD primary schools selected randomly as sample from the civil lines zone of North District of NCT Delhi. The investigators visited the homes of the dropout children to know their reasons for leaving school before completing their academic session.

Analysis and Interpretation

School-wise Status of Dropout Children

The school-wise status of dropout students is based on total enrolment in Class I in the year 2001, as given in Table 1. It was observed that the MCD school Adarsh Nagar No.II has the highest rate of dropouts with 51.2 per cent followed by Rana Pratap Bagh and Lancer Road No. 1, MCD primary schools having 47.7 per cent and 47.2 per cent respectively. The lowest dropout rate has been observed at the MCD primary school Roop Nagar (6.25%) and Kamla Nagar R-Block (6.80%). Most of the MCD primary civil lines zone selected as sample lies in the poor socio-economic area, explaining the high dropout ratio that has been recorded in the same areas. The main reason for

Table 1

School-wise Status of Dropout Children

S.No.	Name of MCD Schools	Total enrolment in Class I, in the session 2000-01	No. of dropout children in 2005 upto Class V	Percentage of dropout children during 2000-2005
1.	Tulsi Nagar I	53	14	26.40
2.	Tulsi Nagar II	54	11	20.30
3.	Kamla Nagar, E-Block	29	02	6.80
4.	Rana Pratap Bagh	157	75	47.70
5.	Roop Nagar	32	02	6.20
6.	Jahangirpuri, B-Block	134	59	44.02
7.	Sarai Basti	96	26	27.10
8.	Anand Nagar	29	11	37.90
9.	Indira Nagar I	32	11	34.40
10.	Jahangirpuri, A-Block	191	73	38.20
11.	Wazirpur Ind. Area	115	50	48.30
12.	Azadpur Village	252	118	46.80
13.	Timarpur I	57	24	42.10
14.	Lancer Road I	108	51	47.20
15.	Adarsh Nagar I	261	96	36.80
16.	Adarsh Nagar II	203	104	51.20
17.	Timarpur II	73	27	36.90
	Total	**1876**	**618**	**32.90**

Source: M.C.D. primary schools, Civil Lines Zone, North District, 2005

the high dropout ratio in the zone was the shifting of factories and migration of the families thereof.

The total analysis indicates that 1876 students had been enrolled in Class I in the year 2001 and 618 students out of the 1876 students dropped out of Class V (2005) which means 33 per cent of the children from the schools under study dropped out.

Dropout Rate

It is evident from Table 2 which indicates the rate of dropout children in the MCD schools of the civil line zone, there are seven MCD schools which have a very high dropout rate with more than 40 per cent dropout while 5 MCD schools come within the 30-40 per cent category of dropout rate in the zone. Low dropout rate in the zone is only in 2 schools which have below 20 per cent of the enrolled children in the MCD schools.

Table 2

Rate of Dropout Children

S.No.	Categories of Dropout Rate Percentage	Rate of Dropout Percentage	No. of MCD Schools
1.	Low	Below 20	02
2.	Moderate	20-30	03
3.	High	30-40	05
4.	Very high	40 & above	07

Class-wise Dropout Rate

Table 3 depicts the picture of class-wise dropout children w.e.f. 2001 to 2005. It is clear from the table, the highest dropout rate of children in 2001-2002 was in Class II i.e. 29.6 per cent of the total dropout children whereas 21.5 per cent in the Class I (2000-01) and

Table 3

Class-wise Dropout Children (w.e.f. 2001)

S.No.	Classes	Session	No. of Dropout Children	Percentage of Total Dropout Children
1.	I	2001	133	21.50
2.	II	2002	183	29.60
3.	III	2003	124	20.10
4.	IV	2004	99	16.00
5.	V	2005	79	12.80
	Total	**-**	**618**	**100.00**

20.1 per cent in the Class III (2002-03). The least dropout was in Class V (2004-05) with 12.8 per cent of the total dropout children of the total sampled schools in the civil lines zone of the North District.

The high dropout ratio showed up in three consecutive years 2001, 2002, and 2003 because industries had been shifted to other areas. Thus, a large number of families also migrated from the area with the shifting of industries, leading to high dropouts.

It is evident from the table that about 26 per cent of the dropout children belong to parents doing manual labour followed by about 20 per cent dropout children of families doing private jobs. Likewise, 17 per cent are from families of rickshaw drivers, 18 per cent parents had their own business and about 11 per cent parents were hawkers. It is worth mentioning that 1.6 per cent children who dropped out of schools had their parents in government jobs. Therefore, the result indicates that socio-economic backwardness is one of the major factors for the high dropout rate in the civil lines zone of North district of Delhi.

Table 4

Socio-economic Status of the Parents of Dropout Children

S.No.	Categories	No. of Parents of Dropout Children	Percentage of the Total Dropout
1.	Labourers	162	26.20
2.	Private jobs	123	19.90
3.	Rickshaw drivers	104	16.80
4.	Small shopkeepers	108	17.6
5.	Hawkers	67	10.90
6.	Washerman	18	2.90
7.	Farmers	08	1.20
8.	Government jobs	10	1.60
9.	Barbers	18	2.90
	Total	**618**	**100**

Socio-economic Status of the Parents of Dropout Children

The socio-economic backwardness of the families has been a very important factor for the children leaving schools before completing their education. In this connection, Table 4 shows the socio-economic status of the families of dropout children.

Causes of Dropout

The causes of drop-out of children in the MCD schools of the civil lines zone are given in Table 5. It is observed from the table that the two prominent causes responsible for children dropping out

from MCD schools in the civil lines zones (i) the migration of parents i.e. 47.4 per cent and (ii) the irregular attendance of students (21.4 per cent of the total dropouts).

The percentage of children who leave their schools for earning a livelihood is 7.4 per cent, due to illness is 5.2 per cent as compared to 6.0 per cent due to social causes. The children who were weak in studies and left their schools were only 4.5 per cent while about 4.0 per cent parents of the total dropouts shifted their houses to other places.

Table 5

Causes of Dropout Children

S.No.	Causes of Dropout Children	No. of Dropout Children	Percentage of the Total Dropout
1.	Migrated	293	47.40
2.	Illness	32	5.20
3.	Weak in studies	28	4.50
4.	Irregular attendance	132	21.40
5.	Earning livelihood	46	7.40
6.	Shifting the residence	24	3.90
7.	Social causes	37	6.00
8.	Looking after children at home	26	4.20
	Total	**618**	**100.00**

Findings of the Study

1. Most of the dropout cases are found in re-settlement colonies, industrial area, and slums as compared to posh areas. The total dropout is 32.9 per cent in the civil lines zone that is based on samples taken for the study.
2. The highest percentage of dropout children were in the MCD primary schools Adarsh Nagar No. II, and Rana Pratap Bagh and Lancer Road No.1, with 51.2 per cent, 47.7 per cent and 47.2 per cent respectively.
3. The lowest dropout cases were recorded in the MCD schools Kamla Nagar E-Block and Roop Nagar with 6.8 per cent and 6.2 per cent respectively.
4. It was observed that most of the children who left their schools before completing studies belonged to parents doing manual labour, private jobs, driving rickshaw and running small businesses. They comprised 78 per cent of the total dropout cases. Significantly, only 1.6 per cent children whose parents had government jobs dropped out of school.

5. The maximum number of dropout cases were observed in the 2002 session in Class II i.e. 183 children (29.6 per cent) of the total dropout as compared to the lowest in Class V (2005) with 79 children (12.8 per cent) in the zone. The reason for the high dropout in the 2002 session was shifting of industries to other areas, which led to the migration of families.
6. The major causes for leaving schools before completing their course were migration of the parents (47.4 per cent) and irregular attendance (21.4 per cent). Whereas 5.2 per cent and 4.5 per cent children dropped out due to illnesses and disinterest in studies respectively.

Conclusions

As the study was restricted to one particular zone of North District, which happens to be one of the large districts of NCT Delhi, there was a need to study the problems of children dropping-out from MCD schools in other zones too. This would definitely bring out the total scenario of the district in terms of the causes of children dropping out. Also, a holistic approach is needed to provide remedial measures to bring all the children falling in the age group of 5-14 years to the fold of education.

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8

Learning English through Task-based Methodology

*Meenakshi Khar**

The principal aim of English teaching in today's world has changed fundamentally. English is to be taught as means of communication, to be used in its spoken form in all situations of contemporary life. The visible impact of the presence of English is that today it is being demanded at the very intial stage of schooling. The mushrooming of private English medium schools and the early introduction of English in the state school systems is an example of this.

Languages are learned implicitly by comprehending and communicating messages, either through listening or reading for meaning. Input rich communicational environments are a prerequisite for language learning. The "burden of languages" is the burden of incomprehension. This happens when language is taught for its own sake as a set of forms and rules, and not introduced and familiarised as the carrier of coherent textual meaning. A number of researchers have stressed that language is acquired when attention is focused not on language form, but on the meaning of messages. The learner should receive meaningful language input that is appropriate to her or his age; knowledge of language and readiness for language skills. The aim at the initial levels i.e. first or first two years of English is to build familiarity with the language through primarily spoken or spoken-and-written input so that the child builds up a working knowledge of the language.

We normally begin with suggestions for "comprehensible input". Inputs include textbooks, other print material such as big books, class libraries, parallel materials in more than one language and media support; it could be magazines, newspaper columns, radio/ audio cassettes, etc. and the use of authentic text.

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Encourage the children to look at their books as the text is read out in the classroom. Read it aloud many times and on consecutive days. Repeated reading helps the child to understand the language and to learn to read.

Use of the blackboard to put down new words could be a way of learning new words. The child can have a notebook for new words. New words can also be put up on a chart paper or on the walls. As the activity progresses you can change the charts with word families like adjectives, adverbs, nouns, etc.

Pre-reading questions also helps in understanding the theme and mood of the poem. Children can be asked to look at pictures and describe them.

Beginning with action rhymes, simple plays, or skits, theatre as a genuine class activity can promote the child's engagement with language and its performance. Play-based learning is generally considered the educational context par excellence of the preschool years. The value of learning through play was first put forward by the German educationist Friedrich Froebel (1782-1852). The kindergarten and nursery school movement, which developed from his writings, freed young children from the tyranny of sitting in rows and chanting and writing ABC. Much later Piaget provided a psychological justification for the doctrine by arguing that the child's active exploration of a wide variety of objects is an essential precursor of later verbal and cognitive story reading, as opposed to teaching stories as texts. Reading stories aloud, repeated reading, choral reading, story retelling, and rewriting activities can draw and build on the existing language proficiency and skills of teachers. Regular story reading triggers the acquisition process in children. The stories should also have an element of enjoyment. In telling the story the imagination of the child should be so raised that he actively participates.

There should be a display of signs, charts and notices in the classroom. These should draw the attention of the students to "environmental print". It has been found that exposure to print through stories leads to a child's conceptualisation of the page space in terms of centred headings and paragraphs.

Shared reading of big books with text and illustrations and reading cards can be used for a group reading activity and help them develop acquaintance with print code.

The main drawback in any kind of oral work in a language class is that the teacher tends to take the lion's share of the practice at the learner's expense. There is great satisfaction to be derived from hearing one's own voice resounding through the classroom, dumbfounding the captive audience.

Yet, even when the child is called upon to play an active part, a great deal of what he says will be directly in answer to the teacher's questions denying him the possibility of forming questions for himself. There are few textbooks that deliberately set out to ensure that the language-learner is provided with adequate and consistent practice in the skill of asking questions as well as of answering, although language learning should be one of the most democratic of activities. The

teacher can employ a number of devices to evoke a variety of questions systematically from the learner in the form of situational or non-situational drill work, assisted by flashcards or verbal cues; what we are concerned with here, however, is the less mechanical, less systematic, but more lively practice offered by games and related activities suitable for a wide range of children/learners. The teacher might acquire or prepare a series of posters advertising such items as sports, films, plays, shows, festivals, meetings, carnivals, holidays, excursions. The greater the amount of visible detail included, the greater the number of questions these posters will elicit.

Dictation is also now seen as a language activity that requires the child to decode and hold in the mind chunks of text that must be reformulated.

Encourage children to guess the meaning of difficult words before you explain. Teachers can supply pictures for difficult words; jumbled sentences can be presented in some attractive way to be corrected by the child.

An important insight that emerges from this task-based methodology is that a need to communicate must be created in the classroom, which brings into play not only the target-language resources, but all other resources that learners have at their disposal, for example, conjecture, gesture, knowledge of conventions, numeracy, and the mother tongue. Let children talk about their brothers, sisters, cousins, etc.—this will help in bringing out the concept of caring, and sharing, and emotional bonding. There are a number of enjoyable ways in which a teacher may engage his students from time to time to help foster the very important skill of fluency in communication. But the real value of games and related activities is that they should create an environment for learning and reinforcing in which the teacher interferes as little as possible.

9

Enhancing Girls' Education through CCA

*Prerana Shelat**
*R.L. Madhavi***

Abstract

"The question of the education of children cannot be solved unless efforts are made simultaneously to solve the girls education," said Gandhji. The adage "If a woman is educated, an entire family is educated," emphasises the importance of providing a proper education to the girl child.

Even though in ancient times there were equal opportunities for women in the field of education, later social climate prevented girls from moving out of home; this affected their education. Subsequent industrialisation world over; changed the role of women to a great extent. Women were required to fulfill responsibilities within and outside the home. So, the emphasis once again turned towards providing proper education to women, especially girls. In the Indian context, after achieving Independence, the women's education movement gained momentum. The constant efforts made by the government has raised literacy rate among women to 48 per cent. Traditional mindset, conservatism, security reasons, and a lack of awareness of the need to and the importance of educating a girl child, prevents the rural girl child from obtaining an education. This reluctance towards education in rural areas, is impeding efforts being made in the field of female education in Indian society. Concerted efforts to bring in the rural girl child into the formal education system and to retain them in the system up to the required level included many interactive programmes. In the present paper, the authors try to detail various CCA activities like role play, *bhavai*, mono-act. debate, elocution, etc. to involve girl students in an interactive teaching learning process.

National Curriculum Framework, 2005 thought of learning to occur in a constructive manner. Learning should have a connection with the day-to-day life of the learner and it should be an active process. Learning

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occurring in the social context, in relation to the surroundings of the learner is given primary importance. Moreover, the emphasis is on active learning process, where the learner is able to construct his/her own knowledge. The cherished goals of UEE, universal enrolment, universal access, and universal retention will be achieved by giving importance to the above mentioned points in teaching in classrooms.

Of these goals, the retention aspect is the most important one and the most difficult. One way to achieve retention and enrollment to the maximum extent is to involve children in activities. Various assessments reports on UEE related to SSA are pointing to the fact that teaching-learning process is uninteresting to children, especially those from rural, tribal, and marginalised sectors. This results in absenteeism on part of students, especially girls. That the curriculum is not related to the social context or the needs of the people is one reason for this disinterest. So, various programmes related to UEE, are now mainly concentrating on this aspect of retention, especially in the case of the girl child and curriculum related aspects. Active learning gives importance to students' participation in the process of learning. This means that one needs to involve students in different activities related to learning of the intended aspect. It has been found that when the learning context is joyful and relevant to the surroundings of the learner, the involvement, interest, and motivation are enhanced. The present paper tries to focus on such practices, taking into account various co- curricular activities and their importance in learning especially for "girl child" education

Co-curricular Activities

In general, Co-curricular Activities (CCAs) are classified as those activities that are performed in addition to classroom activities that include instruction. They are classified as athletic and non-athletic, where the former includes sports activities and the latter involves activities related to social interaction. According to a web definition, "Co-curricular activities are those activities which are in addition to classroom instruction and do not result in a grade or credit. Any activity for which a grade is issued is not considered a co-curricular activity." *(http:bham.wednet.edu/policies/3700policy.htm)*

The purpose of co-curricular activities is to enrich and extend the regular curriculum. For example, students learn to work collaboratively with others, to set high standards, and to strive for superior performance while playing team sports or participating in drama and music activities *(http:// msad40.org/policy/jj.htmll).* According to en.wikipedia.

org/wiki/Co-Curricular Activities, "Co-Curricular Activities (CCAS are activities that schools or colleges in some parts of the world (like Singapore), or individual schools, organise for students. They often serve to promote leadership skills, personal development, healthy recreation, self-discipline, and confidence in pupils, and to create a well-rounded curriculum. They often take place outside curriculum hours, and may include musical groups, sports, uniformed groups, or clubs and societies."

Girls' Education – Problems

In the Vedic period, women were given equal status with men in all the duties related to day-to-day living. The later Vedic period saw some downward trends with *Manu Sutras* coming into existence, during this period a woman became subservient to her father, husband, and son respectively. Later, Muslim rule saw the emergence of the *purdah* system and early marriage of girls due to many security concerns prevalent in society of those times. The social position of women was compromised further when they were marked as unfit and barred from any social duties and were even denied education. British rule saw the emergence of some social reformers who opposed *sati pratha* and child marriage. During this period, in the late half of 19th century, through the enactment of new laws several reforms were brought in, like widow remarriage and the reopening of schools for girls.

After attaining Independence, the government has taken several steps to improve the literacy rate among women. It is also recognised that merely increasing the facilities for education is not sufficient, but there is need to make a continuous effort to empower women and remove any disparity in their participation in social activities related to day to day life. Due efforts are being made towards realising this endeavour through policy framework and legislations.

In spite of all the efforts made in the last 50 years, the country is not in a position to achieve 100 per cent literacy rate in general and more so in the case of women. Many social, emotional, psychological barriers are preventing achievement of this goal, especially in rural areas. Dropping out of girls from schools without completing the required minimum years in schools still remains a worrying factor for educational agencies. Security reasons, unhealthy social situations, home responsibilities, unattractive school and teaching atmosphere, elders' attitude, and lack of awareness are some of the factors contributing to the prevailing illiteracy among rural and marginal groups, especially regarding the education of a girl child.

Co-curricular Activities and Education

Examining the different definitions and purposes of CCA, and its importance

in the formal education system indicates that the problem lies in the uninteresting curriculum and teaching practices employed in schools in India. This along with a lack of awareness in rural areas of the advantages of educating a girl child compounds the problem. The solution lies in designing a proper teaching and learning process that places sufficient emphasis on co-curricular activities that will make the learning process active and interesting. This approach will work towards solving the problem of retaining the "girl child" in schools to some extent. Learning through co-curricular activities is mostly joyful and involves the interaction of a child to a greater extent than traditional teaching-learning processes. These innovative teaching methods will also help in developing the different social values of cooperation, honesty, sincerity, respecting others, creativity, and soon. They will help create a girl child that is independent or interdependent depending on the situation.

Taking into consideration the present problems faced by UEE, the traditional, rigid classroom atmosphere, the changing paradigms of learning, and the availability of resources, it is the opinion of the authors that the present teaching-learning process is not sufficient to achieve the set goals and aims of UEE. However, there is no doubt that the process can instill in students cognitive concepts to a certain extent. Sadly, it will not develop in students the application level learning. Therefore, the authors feel that in the present scenario if CCAs are implemented they will ensure learning in a joyful manner. They will definitely satisfy the active learning requirements of the learner. This would solve the problems of retention as learning process will involve the learner. In addition to school level activities, some activities should be designed to involve the community outside the school to increase and spread an awareness about education of the girl child.

The authors give suggestions for activities that will draw the girl child in rural areas towards completing education.

Different Co-curricular Activities

The basic aim of education is the all round development of the individual. In today's favourable attitudes towards the holistic development of a child, involving the child in activities other than curricular ones has gained much importance, as such activities are helpful in developing effective and psychomotor domains of the student. Therefore, in the present day school system activities like yoga, sports, and field trips are given greater emphasis. Retention of girls in schools is a problem caused by unattractive teaching methods, irrelevant curriculum, and a lack of interest from elders. To achieve

holistic development of a girl child, it is important to involve the students in different activities that are directly related to their environment. This approach would work towards solving the problem to some extent. Research confirms that an educated mother will contribute greatly towards the education of her child.

CCAs can be designed for school level interaction or for social interaction. Certain activities that can be used to capture the interest of girl students are described here. These activities however need to be practiced while maintaining regular classroom interaction. They are designed to inculcate a sense of dedication towards learning, understand the importance of regular attendance, understand the importance of fairplay, learning practices, and teamwork. The innovative learning process will also help the "girl child" learn how to do their best to achieve set goals. Understanding the importance of goal setting as a key factor for success and the achivement of academic goals is important.

Using folk media – An useful CCA tool could be the use of folk media. Tools that are popular and familiar to the children can be adapted to provide concrete learning experiences and direct participative activity involving enactive learning. Students will enjoy songs like *balgeet*, *jodakana*, and *ukhana*. These songs if combined with inquiry will sustain interest.

1. *Ek marl dhingali ne be anie aankh*
2. *Meto meti man, manniya Adh maniya be bal Amnejavti nadi par Nadi maa ekaj nav Je le man no bhar to mitro karo vichar kevi rete karvi nadipar*
3. *Ek titho tith ghar mapethe tith tithe mari lath be tittha saath*
4. *Shiyale sheetal va v aye pan khare ghatipeda thae*

   Fake ghol kapas khathol tel dhare chale tambol

   Dahre shareere dagali shal phaate gareeb tana pag gaal

Drama – Plays that can depict evils of social customs can be chosen. Children can be divided into groups and each group can choose to enact a sub-theme related to a specific topic. For example, the topic of "pollution" can be divided into air pollution, water pollution, and soil pollution. The groups could enact plays that highlight the importance of growing a tree or the importance of clean surroundings. These plays can be performed in street corners or in the school compound.

Ma-Beti sanghatan – A girl child and her mother would form a *sanghatan*. Whatever the girl learns at school can be taught to her mother thus making her mother literate (if the situation is such that the mother is illiterate). If the mother is

educated and talented, her help can be sought in peer education. She could help educate illiterate mothers and be an inspiration to them.

Girls' community centre – A lady teacher from the village can run this community centre. It could become the place where girls from the village and nearby schools can come and learn about various things related to their life: the importance of being literate, hygiene and related health concerns, problems pertaining to early marriage, vocational training, and so on.

Bal Sakhi – This can be held on the school premises as a peer learning strategy for girls. Senior girls who have knowledge about various matters like health and hygiene, HIV/AIDS, and life skills can tutor juniors and make them aware of basic essentials.

Awareness skit – A small skit focussing on superstitions prevailing in society, social evils, governmental provisions for girls' education, and so on could be organised to help spread an awareness among students as well as in the community.

Story telling and story making – This involves adapting a story like that of "The Thirsty Crow" to teach the students concepts like the principles of physics. Weaving facts into a story is a device that makes learning joyful, participative, and interesting.

Vocational training – A training centre can be established in the school premises to train girls in different vocational arts like embroidery, toy making, tailoring and so on. Skills that will help in sustaining life later and also help in the transformation of culture.

Bhavai – This is a folk-theatre form that could be used to narrate anything in a humorous manner. Sensitive issues, social issues, normal stories, anything can be narrated by the actor/s in an appealing way using songs and humorous comments.

Example – A *bhavai* narrating and highlighting facilities provided by the government for educating girls and developing community awareness for girls' education can be performed.

Elocution – Elocution is speaking using the correct pronunciation, grammar, style, and tone. An elocutionist, one who studies elocution, can determine a person's geographic or cultural origin by his or her manner of speaking *(http://en.wikipedia.org/wiki/elocution).* In addition to language development, it helps in developing

communication abilities, and the power of a student to explain concepts. When a student is asked to talk about a local or specific problem, their understanding gets clearer and they become more aware of their surroundings.

Example: Topics related to social taboos, for example girls' education or superstitions existing in rural areas could be addressed.

Turncoat – Generally in a debate, the participant is asked to speak for or against a given topic. One has to adopt one stand and stick to it. But in turncoat, the person is expected to react to the given topic in both ways. One has to talk both for and against the topic. This helps to bring out creativity, imagination, and quick response skills in a person.

Example – Topics like child marriage, need for proper health and hygiene practices in girls, etc.

Role-play – This involves one person taking up a character that is related to and existing in their surroundings and enacting it. In doing so, the awareness about the complexity of the personality of the role played increases in the person. It also enhances the creative imagination of the person playing the role.

Example – Psychological condition of an adolescent mother could be depicted

Mime – Here the person wants to convey his message through actions and not by words. To express feelings in activities brings out inner feelings and expressions of the person related to the topic vividly.

Example – Topics to convey messages related to cultural transformation, awareness about changing situations, etc. could be planned.

Mono acting – The mono act is a scene with only one person being physically present. The person plays different roles behaving as though there was another person in the scene. It is an acted out monologues scene. The invisible person is in the scene but at the moment listening to what the person on the stage is saying. The actor may react as though the invisible person has spoken *(http://www.byu.edu/tma/arts-ed/9-12/c2-aa/monoact.htm)*

Example: Inner feelings of a girl who is out of school explaining different situations that prompted her to leave school.

Skit – A skit is a short play that is usually performed in a more informal

setting like a club meeting or a classroom. Skits are often funny. Acting is to perform, to play a part, to pretend to be a character in a play for theatre, a movie, television, or radio. The written text for a skit or play is called the script *(http: //42explore.com/ skits&plays.htm).*

Example: Topics related to advantages of girls' education through contrasting the behaviour of an educated mother and an uneducated mother and their individual response to different situations arising in their life. For example,

Ek che ganga ek che Jamuna sarkhi sahiyar jodi
Ganga che hoshiyar ghani ne jamuna bhot ne bholi Sarkhe sahiyal jodi.....

Street-play – Generally, a play is a story written to enact in a stage or a theatre. Here no formalities are followed. A storyline is adopted related to a social problem and the group involved in performing the skit goes to a locale that suits their purpose and performs. This is more related to attempts to develop social awareness regarding a burning issue or simply for enjoyment.

Example – Social problems like disparity in the ratio of male/female children in recent census reports due to foetus abortion after knowing the sex of the foetus through illegal tests.

Club organisation

The above mentioned activities can be grouped and organised under one heading such as the "Fine Arts and Drama Club". The school can also maintain an "Art Club" for nurturing creativity among students. These clubs could invite leading personalities to speak to the students or hold workshops. This will help students absorb influences and hone their talents and improve through discussions. The club could create a detailed schedule for programmes to be held periodically through a semester.

Cultural Society

A society can be formulated with the involvement of parents on the school premises. This could be used to spread awareness of the culture and traditions specific to particular local groups existing in the school's environment. Specific art forms, creative talents related to local atmosphere, and traditions can be made known through performances by talented parents.

Organising regular meetings of the society members will help spread awareness and concepts pertaining to education. This enhances the awareness, intelligence, and leadership quality of students to a greater extent. They can grow up with the ability to take proper decisions about their problems and offer their services to society.

Student Newspaper

Publishing a newspaper could involve students in different activities. News related to their academic environment,

social conditions, cultural and traditional values can be published. Different students could be involved in activities like collecting news, editing and writing the final drafts, and in the publishing process. Simple technology could be used for this purpose. This activity will help bring out inner feelings, the creativity of the students, and work towards improving their social awareness and social values.

Service Organisations to Involve in Community Related Projects

Service organisations could be formed in schools. Students of the school could willingly offer their services and work with the community at grassroot level. These projects are student directed and student run. Students have the opportunity to make a positive difference in the community. Students can collect funds, build roads, dig wells, befriend the people and introduce concepts of health, education, and better living through casual interaction.

Student Council

A Student Council strives to be the representative voice of the entire student body. This organisation provides leadership roles within the school and within the local community.

It consists of a student-elected executive board and a few student-elected representatives from each class. The purpose of the organisation is to:

- Help protect the spirit, reputation, and cultural principles of the school.
- Promote and increase the spirit of goodwill between all groups involved at school.
- Be accepted and respected as the representative of the organisation by each and every student at school.
- Be a source for student involvement in school operations.
- Work with the administration and help to plan certain school activities.
- Strengthen the image of school by working with other schools as well as the neighbouring community.
- Promote an understanding of good democratic government.

Involving students in school level decision making to some extent will help in developing their decision making and leadership qualities.

Conclusion

All the above-mentioned activities are possible in the present atmosphere of a rural Indian school with greater involvement of the elders, teachers, and parents who have a proper awareness of the situation. All the activities explained are not new, but a teacher needs to possess the vision to use the right approach at the right time. Any initiative requires extra amounts of time and effort on part of the students and teachers to make it successful. These programmes not only need the participation of women/girls but also require to extend an understanding in boys and men of the importance and significance of women.

For this it is necessary to include willing male students and elders from the village into these activities. This will make these programmes lively and also strengthen the programmes from all levels like getting easy support and resources from the community for successful organisation. Resources required to carry on these activities are to be procured from different sources including governmental agencies. Proper support to teachers who have a positive attitude and an inclination towards these activities is essentials. This will improve the success rate of the programmes.

Immediate steps need to be taken to improve the literacy rate amongst girls.

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10

Can we be Keen Observers?

*V. P. Gupta**

Keen and minute observation arouses curiosity, inculcates reasoning and develops a scientific attitude. Keen observation plays a crucial role in learning and in the development of science. Fruits fall from trees naturally but the critical observation of an apple falling from the tree led Newton to discover the important Newton's Law of Gravitation. Keen observation of things around us and our environment needs concentration and deep and critical thinking. How can we make good observers? How can we motivate students to develop scientific or logical thinking? Let us start this from lower classes, say Class III or IV. National Curriculum Framework 2005. (NCF, 2005) emphasises the importance of learning by listening, observing, interacting, experimenting and analysing, besides reading. Teachers or teacher educators may take up different environmental activities related to the above for development of learning in children. Pimental (1963) quite interestingly introduces his book *Chemistry: An Experimental Science* with the simple activity of a burning candle.

The activity of observation of a burning candle may be demonstrated by

a teacher or teacher educators for any level of learners. This activity has been demonstrated 61 times by the author

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(VPG, 2001, 2002, 2004) before varied groups of teachers and teacher educators at the national and the international levels and pupil teachers of B.Sc, B.Ed. four year and B.Ed. two year courses. It is generally observed that an individual can write about 5-6 observations but when the observations of different learners are pooled together, the number of observations on many occasions crossed 40, depending upon the level and number of observers. Participants of the workshop on capacity building of functionaries of the Western Region on Environmental Education, including disaster management and mitigation held at RIE Bhopal from 27 February to 3 March 2006 were also asked to write their individual observations about a burning candle. For this purpose, three burning candles of the same colour and size were placed before the participants. Measuring scale, chalk sticks, matchboxes, thread pieces, glass rods were placed near the burning candles. Ten minutes were given for this activity. The participants were asked to feel free to come near the candle and perform any activity that they wanted to. Individual observations made by the participants of the workshop (very senior teachers from Central Schools, teacher educators from SCERTs and DIETs of Maharashtra, Gujarat and Chhatisgarh) are given below for the ready reference P_1, P_2, P_3... denote participants.

Observations about a burning candle:

P_1

- The candle burns to give lighted heat;
- Length of the candle is decreasing;
- There are three layers of flame;
- It blackens a chalk piece.

P_2

- Why was Dr. Gupta lighting the 2nd candle with another match stick? Why not with the help of the first burning candle?
- The candle was melting;
- Fans were switched off before this activity;
- If fingers were momentarily held over the low flame in the beginning, the flame could be extinguished without the fingers getting burnt;
- When the chalk piece was placed on the flame, there was a cracking sound;
- When a plastic scale was placed on the candle, the scale got disfigured.

P_3

- Though there was no smoke it blackened the chalk piece when placed over it;
- There were reflections of the candle.

P_4

- There was a bluish black flame at the bottom, but a yellow one at the top;

- There was radiation around the flame;
- The flame was elliptical in shape;
- Smoke emitted, when the flame was disturbed;
- The material near the flame of the candle is in a molten-state; it is responsible for the continuation of burning.

P_5

- The flame is static;
- The longer the wick of the candle, the larger the size of the flame.

P_6

- The top of the wick is red;
- If any object is moved very fast over the flame, no change takes place, but if an object is kept for sometime over the flame, then there is deposition of soot;
- When a piece of paper was passed through the middle of the flame, the paper did not burn but when it was passed above the flame it started burning.

P_7

- This activity is not a part of sustainable development;
- The flame was very low/small in the beginning but went on increasing with the passage of time;
- A transformation of the substance was taking place.

P_8

- A burning candle can help ignite other substances.

P_9

- The molten wax sticks on one side of the candle and gets solidified.

P_{10}

- The shape of the flame is like a tree-leaf and may be about 1 inch in size;
- The middle portion of the flame looks slightly different;
- The upper portion of the flame is brighter;
- Flame flickers due to air currents;
- When a matchstick was placed 1 inch above the flame, it burnt.

P_{11}

- There are three colours in the flame—blue, black, and yellow;
- Due to flickering of the flame, its diameter increases and length decreases;
- The molten material of the candle takes the shape of a disc.

A few other observations made by the participants in other demonstrations are given below:

- There is a bright flame at the top;
- Thread does not leave behind any ash as a result of burning;
- A burning candle is placed on an inverted beaker, which in turn, is placed on the table;

- The molten wax has taken a concave shape;
- The candle is fixed with the help of molten wax;
- There is a slight bend in the candle;
- About 1 cm of the upper portion of the burning candle is shining;
- There is a luminous zone near the outer portion of the flame;
- There is a reflection of the flame;
- Some changes take place in the candle—they may be physical, chemical or both;
- A candle is cylindrical is shape;
- The flame is silent;
- The candle is white in colour;
- The reddish portion of the wick is inflated;
- On touching, the candle is found to be slippery;
- The candle is placed on a 250 ml beaker, near a piece of wire;
- An open box is also placed near the candle;
- Some reagent bottles are placed near the burning candle on the table;
- The particpants are eagerly watching the flame;
- The process of burning of the candle is continuous due to capillary action of the molten wax;
- The circumference of the candle is 3 cm;
- The diameter of the candle is about 1 cm;
- The original length of the candle was 15 cm;
- After burning for about 10 minutes, the length of the candle is reduced to 11 cm;
- Due to strong air currents, the molten wax gets collected on one side of the flame;
- Proportion of the yellow colours is more in the flame;
- Wax does not start melting immediately but after some time.

Conclusion

It is clear from the above data that no individual teacher or teacher educator could note down more than five observations but the total observations pooled together have come out to be 65. When this can happen with the senior teachers and teacher educators with vast experience of observing, identifying, classifying, and inferring, what would be the case of the budding scientists if they are simply asked to cram answers to the questions given at the end of the chapter without taking them out of the four walls of the classrooms and observe Nature? Classroom transaction strategies will have to be changed. Each class at the primary and the upper primary level must be taken for field excursions at least once a week, maybe for one or two

periods so that the children can enjoy Nature, and observe it—the surrounding plants, crops, variety of vegetation, drains, hillocks, stones around them—and pose questions to their teachers or elderly members of their families. It is not necessary to satisfy their curiosity fully. Answers to one problem/query may lead to another query. This leads to development of mind and brain. The above observations about a burning candle may lead to the following questions:

- What is the composition of the material of the candle?
- What are the products of combustion?
- Why is the candle burning?
- What is the rate of burning of the candle in terms of length and in terms of mass?
- What is the effect of temperature on the rate of burning of candle?
- What is the effect of air current on the rate of burning?
- What will happen if the candle is burnt in a closed room?

To get answer to these problems, one will have to consult teachers, friends or books, elderly persons of the community, make hypotheses, perform experiments, collect, analyse and interpret data, test and modify hypotheses which lead to the development of the scientific thinking. Let us observe keenly, think divergently and produce citizens of logical and righteous thinking.

11

School Library – A Centre of Learning

*Moorttimatee Samantaray**

Abstract

This article highlights the importance of education followed by the importance of books and libraries in self development. It also explores how books help children not only in teaching them a few facts but also in enriching their imagination, widening their outlook, developing a fact finding attitude and training them to use their leisure time properly. The social and educational significance of books for children cannot be underestimated. Realising the importance of school library in the educational process, NCF-2005 has emphasised its functioning as an essential component of the school at all levels.

Education in its true spirit leads to the development of the human personality from all angles i.e. intellectual, physical, moral, social, and spiritual. General education, which is necessary for all citizens, is imparted through school education. Therefore, all the children of a nation are required to attend school to get the necessary educational, cultural, vocational, administrative, and social skills to help themselves and the society. Realising the importance of education, the international slogan "Education for all" was announced in the JOMTIEN conference, 1990. In our national perception, education is essentially for all. This is fundamental to our all-round development. Education develops manpower for different levels of the economy. The school is the temple of learning, home of affection, and a playground to perform. The school has been chiefly concerned with the teaching of subjects specially designed in the curriculum. A school of the past was entirely dependent upon text books. The development of skills in reading continues to be of outstanding importance. Now in the IT-age, educators are aware that learning is accelerated by the use of many and varied devices and

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materials, which include both print and non-print media, in which the library plays an important role. Collection of books, pictures, pamphlets, maps, films, filmstrips, recordings, and any other printed media make the library a gold-mine for each teacher and pupil. As a child progresses with reading, his/her curiosity is stimulated to seek answers through print. This leads the child to see answers in the ample collection of the library. The child develops interest and borrows books. Through extensive reading, the child is enabled for proper judgment in all walks of life. Thus, the use of a library provides proper opportunity to explore and gain indepth knowledge, develope a taste for reading and learn how to choose the right books to read, to absorb, and widen the horizon of knowledge.

Importance of Books/School Library

Books not only teach children a few facts but also enrich their imagination, widen their outlook, develop a fact finding attitude and train them to use their leisure time properly. This shows that the social and educational significance of books for children cannot be underestimated. The school library equips students with life-long learning skills and develops the imagination, enabling them to live life as responsible citizens. The librarian and the teacher both give the child proper instruction and direction in order to develop an independent reading habit and to prepare their own projects. As a result, the child learns how to study, how to discover, how to answer the questions independently, and to get familiar with the contents of many books. Books are no substitute for living. Books have always been a source of information, comfort, and pleasure for people who know how to use them. The habit of using books needs to be developed from childhood. The child needs to learn to balance personal happiness and social approval. In this situation, books help directly or indirectly to satisfy social, material, emotional, intellectual and spiritual needs. The child understands concepts like the need to belong or to be a part of a group, the need to love, and to be loved, the need to achieve, to be worthy of respect, to work towards change, and the need for aesthetic satisfaction.

The school library offers learning services by making availabe both print and non-print materials. Print material

includes books, periodicals, newspapers, reference books; whereas non-print material includes audio-visual materials, charts, globes, maps, micro-forms, micro-films, pictures, models, mock-ups, realia (real objects), recordings, slides, specimens and transparencies on different subjects. So, now a days, the library is otherwise known as a media centre. Besides the print and non-print materials, internet connectivity has become the necessity of the day to supplement the classroom projects. The books and resources in the library enable its members to become a critical thinker and effective user of the library.

Think about it:

Can we tell why it is raining?

Of course, we can.

We can see the raindrops and wet streets, we can hear the pitter patter of the rain, feel the wetness of the rain, think about rain—Where does it come from? Why does it rain? There is always moisture in the air but we cannot see it. We can see the clouds where the moisture has collected as droplets. To find out the proper answer, we read more about clouds from the literature available in the library and learn that when clouds are heavy and cool enough, drops of water fall as rain. We learn, see, hear, feel and think about things that help us learn.

The school library helps teachers as well as pupils to learn; to think logically; learn to work alone; learn to work and play with others; learn to draw pictures and enjoy together; learn songs to sing; learn stories to tell; learn games to play; learn to keep safe and stay out of danger; learn to eat good food to stay well; learn to know about our country and to keep it great; learn about rest of the world(moon, sun and stars). the resources in the liabrary helps students decide what they want to do when they grow up. The library helps individual find out what they can do best, and inculcate the love for books. Children learn to be voracious reader.

Ways to Increase Reading Habit among Children

Both teachers and students with the help of community members can undertake a good number of activities in and outside the library to make their learning process truly meaningful. There can be an organisation of a (weekly/fortnightly/quarterly) reading forum, a discussion forum, development of wall magazines on different current issues and themes, even a handmade school magazine that can have a compilation of local stories, poems, paintings, and things like a compilation of local language dictionary, etc. Such activities, organised in a regular manner can make schooltime very exciting and enriching for students, teachers, and community members including parents.

The following points are essential for the development of literacy, information literacy, and teaching. Core library services according to

UNESCO manifesto are: supporting and enhancing the curriculum; developing and sustaining the reading habit and creating an enjoyment of reading and learning. Libraries are instrumental in offering opportunities to learn and teach and inculcate creativity enabling students to enjoy knowledge.

Supporting all students in learning and in the practice of skills to evaluate and use information is a function of a good library. A library must provide access to local, regional, national, and global resources through the internet. It must play the lead role in organising activities that encourage cultural and social awareness and sensitivity. Working with students, teachers, administrators and parents to achieve the mission of the school in particular and society in general is the goal of the library. Promoting reading and providing resources and services of the school library to the whole community will be the expanding role of the library.

Role of Readers' Club

The Readers' Club is an informal organisation of NBT (National Book Trust), where teachers and children meet from time to time, read books, and have discussions and exchange ideas on books. The prime objective is that children should, from a very young age, acquire the reading habit and learn to look after books. The main objective of the club is to inculcate the habit of reading books other than prescribed text books as well as to provide an easy access to good and interesting reading materials. The club can be setup anywhere in the school. There should be enough seating space. Children should have freedom to handle the books, select books of their choice, freely exchange them and take them home. The librarian or any interested teacher can take time for the Readers' Club. Schools establishing the Readers' Club will get books worth Rs 250.00 free of cost from the National Book Trust(NBT). They will also be sent a bilingual bulletin every month, containing stories, poems, interesting news and other articles. The bulletin also publishes the articles written by the members of the Readers' Club. The Readers' Club organises many activities like: wall newspaper, book readings, and perhaps invite authors, writers, and others to speak to the Readers' Club.

Conclusion

The school library is the best place for learning. It helps all of us to do better work, be better citizens, and to live useful, happy and full lives. No doubt, the school library is an integral part of the educational process. Every school, whether a pre-school, primary school, or secondary school, needs to have a library. Realising the importance of school library in the educational process, NCF-2005 has emphasised on its functioning as an essential component of the school at all levels. It has been recommended by NCF to treat the library as an essential component of the school.

Both teachers and children need to be motivated and trained to use the library, it is important to make children into self-reliant library users. A library must provide new information, use technology, and enable students and teachers to be connected to the wider world through books and journals.

The school authority, teachers, students, parents, and the community may join together in fulfilling the objectives of NCF. This would ensure that the school library is an integral part of the education process. To facilitate this workshops can be organised to convey that and library is an essential component and not an ornamental part of any institute.

"The school library helps teachers teach and children learn" *-Laura Bush*

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12

Samvedna – Protecting the Child from Abuse

*Amita Govinda**

Eight year old Manju began her school life as a bubbly, outgoing child, who made friends easily with teachers and other children. Suddenly she began to spend her time sitting alone. Even during recess she sat alone. Her smile disappeared. The drastic change in her behaviour was noticed by her teacher. So, the teacher called Manju and spent sometime talking to her. During this interaction it was revealed how Manju had been abused by her own uncle. The teacher helped Manju to regain her confidence and Manju once again became her former self.

Lakshmi initially did not bother too much when her five year old son complained of pain. When the pain persisted she took him to the doctor. To her horror she came to know that her had son been abused by the boy who was looking after him.

This is not the story of only Manju and Lakshmi's son. We come across reports of several children like them who have been subjected to physical abuse by people closely known to them. Abusers come from any walk of life,including well respected people whom you could never have imagined could indulge in such activity .The culprit in many cases may be a neighbour, a caretaker, or someone who knows the child.

But, in the normal course, we do not find this as a common problem. After all, many abuses are the handiwork of socially distorted minds. Yet, even in the stray case when it happens, it can be permanently damage the child's personality. Care and caution by the parent is critical. If at all it happens, one has to know how to handle such events and their after effects. In a variety of ways, children disclose when they are physically abused. Very often we come to know through the behaviour of the child, as in the case of Manju. The kind of

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statements that they make, lead us to suspect abuse.

How should we help them?

- **Listen Patiently**
  Listen to the child without questioning the child in front of others. Make sure that the child feels comfortable and does not feel guilty or ashamed to tell you about what all happened. In order to minimise child's anxiety you must not project your anxiety to the child. It is important to speak quietly and calmly.

- **Create A Relaxed Environment**
  Allow the child to speak voluntarily. Do not force the child to disclose more than what he/she wants to say. Allow the child to tell the story without interruptions. Many children feel anxious and apprehensive that people around them may not believe them. Try and use the language appropriate to child's development level. Accept the child's version of sexual terms.

- **Allow the Child to Express Feelings**
  Assure the child that he or she is not alone. Abuse happens to many children and they must know that adults want to help them and do what is necessary for them. Impress upon them that talking about abuse to adults is the right thing to do. Children who have been sexually abused may develop feelings of guilt, shame, and fear. We need to convey to them that those feelings are normal and will wear off in due course of time.

- **Reassure the Child that the Abuse is not his/her Fault**
  Emphasise that it is the adult who should feel guilty .Tell the child that he/she has done nothing wrong, either by participating or by talking about it.

  Protect children from abuse. Be sensitive to a child's needs, and by making yourself a safe person to whom the child can disclose sensitive information.

  Children often hesitate to reveal physical abuse to their parents for the fear that they may harm the family through such testimony.

13

A Musical Joy

*Kiran Devendra**

Last year, I was travelling from Kolkata to Bolpur. I was excited that I was going to visit Shantiniketan for the first time. It was a wonderful train journey of two hours. The green trees, plants, and small and large water ponds were a sight which was soothing to the eyes. The train stopped for two minutes at a station and hawkers boarded the train. The lemon tea which I had was delicious, I had two cups of it. While I was sipping tea, I saw a man, very thin, very ordinary looking, making a great deal of effort to adjust while resting a very ordinary harmonium on the edge of a seat. Once this effort had been made, he started singing *Rabindra Sangeet*. It was so soothing. This ordinary, unknown singer was so involved that he only concentrated on giving his best to the passengers. The speed, the moving hawkers, and the loud voices of passengers did not bother him. He was happy that he was giving his best; this happiness was radiating on his thin dark face.

Most passengers were busy talking, laughing, using mobile phones, or even reading newspapers. Very rarely would a passenger smile and nod at him, which made him happy or I should say very happy as it gave him the confidence to start the next song! After he had sung three-four songs, passengers gave him very small amounts of money (coins of one, two, or five rupees). The singer was very grateful to them as he bowed his head and put his hand on his chest. He got down at the next station, but before he did so he stood before me to thank me for continuously letting him know that I was listening and appreciating his talent and effort.

After my meetings, as I sat in the guest-house my thoughts were constantly going back to this man who was so good in his singing that he created his own space while sharing

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his music with the passengers. The impression he left on my mind was so great, that the next day when I boarded the train, I was hoping against hope that he should board the train, again when it would halt for two minutes.

I cannot express how overwhelmed I was with emotion when I saw him. He made the same effort to give his best to the passengers.

Even after a year, this simple man keeps revisiting my thoughts to make me realise that if you have a sense of duty, commitment, and the will, nothing can stop you from performing and achieving a sense of satisfaction. While people in towns and cities need a perfect ambience, pin-drop silence, and a thunder of applause, this man performed in a fast moving train, amidst a lot of noise and movement of the people and the train. He did it as a part of his duty to a profession that helped him to keep his family together and the household going. The most beautiful part of his personality was that he had no complaints, and he was not looking forward to project his talent. He did everything naturally.

Teachers could share and discuss such incidents with their students. Sharing experiences would enable both teachers and children to reflect on various issues. This could also mean giving an opportunity to every child to express herself/himself. This would ensure participatory learning and children would also learn that any work or duty done well can bring joy, happiness and satisfaction. Teachers could tell the children that one need not look for appreciation from outside and that joy and satisfaction is much more valuable. Every experience can be valuable for both teachers and children to grow together while appreciating and reflecting on various experiences.

14

Looking Around – A New Set of Textual Material in Environmental Studies for Class III

*Manju Jain**

When we think of General Science and Social Studies in primary classes, we clearly have in mind some 'body of knowledge' and also 'typical ways of acquiring' that knowledge. Such an approach naturally tends to think of topics that have traditionally served as the basis of their own disciplines. In the last few decades, it has been increasingly seen that children learn holistically rather than in a compartmentalised manner, i.e., concepts of science, geography, history, etc. through a disciplinary approach. It has also been proved that children not only learn through interaction with the environment, but also through talking, discussing, and interacting with other people, both adults and children. With an appropriate question or suggestion, the child's understanding can be extended far beyond the point which she could have reached alone. The new EVS syllabus and textual material is developed within this 'social constructivist' perspective of learning. The EVS syllabus consciously begins with key questions rather than key concepts. This is to trigger the child's thinking in new directions and provide a scaffolding to her learning process. With this aspect in view, the NCF-2005 recommends that Environmental Studies be taught as an integrated course for the entire primary stage instead of two distinct parts, i.e., Science and Social Studies.

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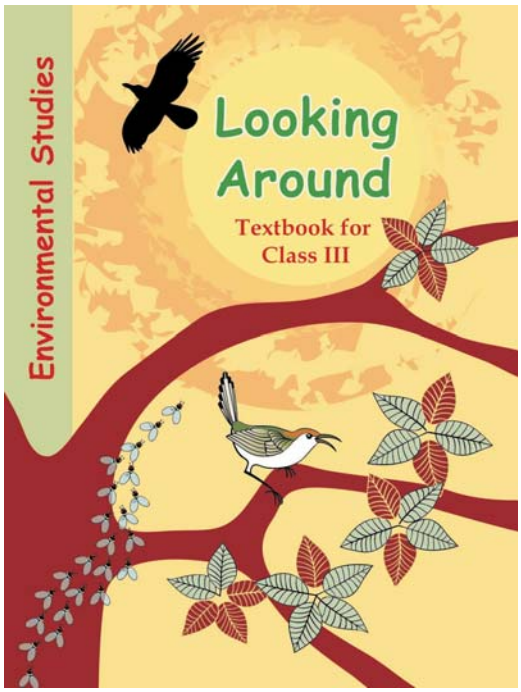

Some salient features of the new EVS textual material are:

- A thematic approach has been followed and the syllabus is woven around six key themes—namely, family and friends, food, water, shelter, travel, and things we make and do which move gradually from self to immediate surroundings and further expand to the wider environment. The format of the syllabus is suggestive rather than a prescriptive one.
- The new textbook-cum-activity book of Environmental Studies includes learning opportunities for children, general and specific hints for teachers/parents and scope for children using the textbook as a 'worksheet'.
- There is a conscious effort to discourage rote learning and hence descriptions and definitions are totally avoided. To engage the child joyfully, a variety of formats of the lessons such as narratives, stories, poems, puzzles, jigsaw, comic scripts, and nature visits amongst others have been used in the textbook.
- The active participation of children in a joyful manner is important in constructing knowledge. Thus the nature of the activities in the textbook is so varied that children get opportunities to explore, observe, browse, categorise, speak, question, write, manipulate and process information, amongst others.
- Activities and exercises have been inbuilt in the lessons instead of being pushed to the end. The objective of the activities and questions in the book is not only to evaluate the child's knowledge but to provide an opportunity to the child to express himself/herself.
- Children are encouraged to tap sources other than textbooks and teachers, such as family, community, newspapers, books, and local environment. This aspect stresses on the fact that these are not the only sources of information.

This method of learning would provide the scope for expanding the boundaries of learning and also give the opportunities to children to expand her/his learning beyond the point which she/he reaches alone.

- The activities given in the book are suggestive and therefore provide opportunity to every teacher to modify textual material according to the local context and needs of the children.
- Opportunities are given to children to work individually, in small groups or in larger groups. A variety of group activities are included that would promote peer learning and improve social interactions and also facilitate children in consolidating what they have observed and learnt.
- Illustrations in the textbook are a combination of the judicious use of black and white and multicolour visuals. They are also bigger in size to develop observation skills, and will also provide joy and challenge to the children in their learning process. The visuals reflect the ethos of the written material and complement the writing style fully.
- Attempts have also been made to find suitable ways to sensitise the child to the wide differences that exist within our society such as physical abilities, economic background, gender, class, caste, and people with special needs. Such social issues are handled in a sensitive manner in text books.
- In order that every child can make informed choices, an attempt has been made to relate the child's local knowledge to school knowledge. Lessons are developed around simple and commonly spoken language of children.

15

Mathematics Classes I – V

General Points for Textbook Writers —

1. The following syllabus has been developed keeping the philosophy of the Yashpal Report and the National Focus Group for Teaching Learning Mathematics in view. Keeping in mind the reality of the number of hours that teaching actually takes place in the school, we have kept a thumb rule of 140 periods, of 30-40 minutes each, per year for mathematics. Within this the number of periods allotted to each area is given in the syllabus. However, this is just to give an approximate idea of the weightage to be given to a particular topic by writers and others who are transacting the syllabus. This break-up of time should not be taken as an exact writ by teachers.

2. We need to encourage the development of a culture of learning outside the classroom. If a topic is linked well with experiences, interesting exercises given then conceptual learning of math would continue beyond the 140 periods.
3. The syllabus has been developed in five very natural streams flowing from Class I to Class V, which overlap very often, not only with each other but also with themes developed in other subjects that are being learnt simultaneously.
4. While developing the study material, we expect the focus to be activities/exercises, built around children's real-life experiences and from areas across the curriculum.

They need to be created in a manner that would meet more than one objective simultaneously, and cover more than one stream at the same time. Further, we must include extensions to activities as part of the main course material, and not as a supplement, for the learners who feel encouraged to do them. However, as for any activity or experience, the teachers would need to give enough leeway to children, or modify the activity, to suit their interests. In this context, it is important that children's current local interests and enthusiasms be utilised to the maximum as opportunities for developing math concepts. Enough space, in various ways, must be given for this in the textbooks.

5. Mathematics is about a certain way of thinking and reasoning. This should be reflected in the way the materials are written and other activities and exercises created. The teachers' training should reflect this also. Particular stress must be given to allow the child to articulate her reasons behind doing an exercise in a certain way, for example, why she is continuing a pattern in a particular way. Such interactive learning will require the teacher to plan for more time to be given for certain concepts in the classroom, and the textbooks would need to allow for this.

6. The Class I and II books would be workbooks with short notes for the teacher about suggestions for dealing with the particular topic. (In fact, such notes should probably be incorporated in all the primary books.) The Class I workbook and the other materials would be created with the view to consolidate the mathematical concepts and experiences that the child already has before she joins school, and to build on this background.

7. The language used in the books for Classes III to V should be what the child would normally use and would understand.

8. The sequencing of the concepts should not be linear, but spiral.

9. The book should not appear to be dry and should be attractive to children in various ways. The points that may influence this include the language, the nature of descriptions and examples, inclusion or lack of illustrations, inclusion of comic strips or cartoons to illustrate a point, inclusion of stories and other interesting texts for children.

10. While dealsing with problems, the text books should have several situations with multiple correct solutions. Make the children aware that there can be several strategies for teaching a problem.

11. The material regarding patterns should be created in a way that would allow the child to observe patterns to generalise them, and to develop her own patterns.
12. The purpose is not that the children would learn known definitions and therefore never should we begin by definitions and explanations. Concepts and ideas generally should be arrived at from observing patterns, exploring them and then trying to define them in their own words. There should be no overt emphasis on remem-bering definitions in known standard forms in exactly the same words.
13. Problem posing is an important part of doing maths. Exercises that require children to formulate and create a variety of problems for their peers and others should be built in.

Class I	Class II
Geometry (10 hrs.) Shapes and Spatial Understanding • Develops and uses vocabulary of spatial relationship (Top, Bottom, On, Under, Inside, Outside, Above, Below, Near, Far, Before, After) Solids around us • Collects objects from the surroundings having different sizes and shapes like pebbles, boxes, balls, cones, pipes, etc. • Sorts, Classifies and describes the objects on the basis of shapes, and other observable properties. • Observes and describes the way shapes affect movements like rolling and sliding. • Sorts 2-D shapes such as flat objects made of card etc.	**Geometry (13 hrs.)** Shapes and Spatial Understanding 3-D and 2-D Shapes • Observes objects in the environment and gets a qualitative feel for their geometrical attributes. • Identifies the basic 3-D shapes such as cuboid, cylinder, cone, sphere by their names. • Traces the 2-D outlines of 3-D objects. • Observes and identifies these 2-D shapes. • Identifies 2-D shapes viz., rectangle, square, triangle, circle by their names. • Describes intuitively the properties of these 2-D shapes. • Identifies and makes straight lines by folding, straight edged objects, stretched strings and draws free hand and with a ruler. • Draws horizontal, vertical and slant lines (free hand). • Distinguishes between straight and curved lines. • Identifies objects by observing their shadows.

Class II	Class III	Class IV
Geometry (16 hrs.) Shapes and Spatial Understanding • Creates shapes through paper folding, paper cutting. • Identifies 2-D shapes • Describes the various 2-D shapes by counting their sides, corners and diagonals. • Makes shapes on the dot-grid using straight lines and curves. • Creates shapes using tangram pieces. • Matches the properties of two 2-D shapes by observing their sides and corners (vertices). • Tiles a given region using a tile of a given shape. • Distinguishes between shapes that tile and that do not tile. • Intuitive idea of a map. Reads simple maps (not necessarily scaled) • Draws some 3-D objects.	**Geometry (16 hrs.)** Shapes and Spatial Understanding • Draws a circle free hand and with compass. • Identifies centre, radius and diameter of a circle. • Uses Tangrams to create different shapes. • Tiles geometrical shapes: using one or two shapes. • Chooses a tile among a given number of tiles that can tile a given region both intuitively and experimentally. • Explores intuitively the area and perimeter of simple shapes. • Makes 4-faced, 5-faced and 6-faced cubes from given nets especially designed for the same. • Explores intuitively the reflections through inkblots, paper cutting and paper folding. • Reads and draws 3-D objects, making use of the familiarity with the conventions used in this.	**Geometry (16 hrs.)** Shapes and Spatial Understanding • Gets the feel of perspective while drawing a 3-D object in 2-D. • Gets the feel of an angle through observation and paper folding. • Identifies right angles in the environment. • Classifies angles into right, acute and obtuse angles. • Represents right angle, acute angle and obtuse angle by drawing and tracing. • Explores intuitively rotations and reflections of familia 2-D shapes. • Explores intuitively symmetry in familiar 3-D shapes. • Makes the shapes of cubes, cylinders and cones using nets especially designed for this purpose.

Class I	Class II
Numbers (46 hrs.) Developing a sense of Numberness, Counting and Operations of Numbers 1 to 9 and zero • Observes object and makes collections of objects. • Arranges the collection of objects in order by – Matching and – One to one correspondence • Counts the number of objects in a collection. • Makes collection of objects corresponding to a specific number. • Recognises and speaks numbers from 1 to 9. • Uses numbers from 1 to 9 in counting and comparison. (Real objects and repeated events like clapping to be used for counting) • Reads and writes numerals from 1 to 9. • Adds and subtracts using real objects and pictures. • Adds and subtracts the numbers using symbols '+' and '-'. • Approaches zero through the subtraction pattern (such as 3 – 1 = 2, 3 – 2 = 1, 3 – 3 = 0).	**Numbers (46 hrs.)** • Reads and writes numerals for numbers up to ninety-nine. • Expands a number with respect to place values. • Counts and regroups objects into tens and ones. • Uses the concept of place value in the comparison of numbers. • Counts in various ways: – Starting from any number. – Group counting etc. • Arranges numbers upto hundred in ascending and descending order. • Forms the greatest and the smallest two digit numbers with and without repetition of given digits. • Indicates and identifies the position of an object in a line. Addition and Subtraction • Adds and subtracts two digit numbers by drawing representations of tens and ones without and with regrouping. • Adds zero to a number and subtracts zero from a number. • Observes the commutative property of addition through patterns. • Solves addition, subtraction problems presented through pictures and verbal description.

Class II	Class III	Class IV
	• Draws intuitively the plan, elevation and side view of simple objects.	
Numbers (42 hrs.) Number sequence upto 1000 • Reads and writes 3-digit numbers. • Expands a number w.r.t. place values. • Counts in different ways - starting from any number. • Compares numbers. • Forms greatest and smallest numbers using given digits. Addition and Subtraction • Adds and subtracts numbers by writing them vertically in the following two cases: – without regrouping. – with regrouping. • Uses the place value in standard algorithm	**Numbers (40 hrs.)** Numbers and Operations • Writes multiplication facts. • Writes tables upto 10 × 10. • Multiplies two and three digit numbers using lattice algorithm and the standard (column) algorithm. • Divides a given number by another number in various ways such as: – by drawing dots. – by grouping. – by using multiplication facts. – by repeated subtraction. • Applies the four operations to life situations.	**Numbers (40 hrs.)** Numbers and Operations • Finds place value in numbers beyond 1000. • Appreciates the role of place value in addition, subtraction and multiplication algorithms. • Uses informal and standard division algorithms. • Explains the meaning of factors and multiples.

Class I	Class II
Numbers from (10 - 20) • Forms Number sequence from 10 to 20. • Counts objects using these numbers. • Groups objects into a group of 10s and single objects. • Develops the vocabulary of group of 'tens' and 'ones'. • Shows the group of tens and ones by drawing. • Counts the number of tens and ones in a given number. • Writes the numerals for eleven to nineteen. • Writes numerals for ten and twenty. • Compares numbers upto 20. Addition and Subtraction (upto 20) • Adds and subtracts numbers upto 20. Numbers from 21– 99 • Writes numerals for Twenty-one to Ninety nine.· Groups objects into tens and ones. • Draws representation for groups of ten and ones. • Groups a number orally into tens and ones.	• Describes orally the situations that correspond to the given addition and subtraction facts. • Estimates the result of addition and subtraction and compares the result with another given number. Preparation for Multiplication and Division • Discussion of situations involving repeated addition and situations involving equal sharing. • Activities of making equal groups.

Class II	Class III	Class IV
of addition and subtraction. • Solves addition and subtraction problems in different situations presented through pictures and stories. • Frames problems for addition and subtraction facts. • Estimates the sum of, and difference between, two given numbers. **Multiplication** • Explains the meaning of multiplication (as repeated addition). • Identifies the sign of multiplication. • Constructs the multiplication tables of 2, 3, 4, 5 and 10 • Uses multiplication facts in situations. • Multiplies two digit numbers using standard algorithm and Lattice multiplication algorithm.	• Frames word problems. • Estimates sums, differences and products of given numbers.	

Class I	Class II
Mental Arithmetic • Adds two single digit numbers mentally.	**Mental Arithmetic** • Adds and subtracts single digit numbers mentally. • Adds and subtracts multiples of ten mentally.
	
Money (3 hrs.) • Identifies common currency notes and coins. • Puts together small amounts of money.	**Money (3 hrs.)** • Identifies currency – notes and coins. • Puts together amounts of money not exceeding Rs 50/-. • Adds and subtracts small amounts of money mentally. • Transacts an amount using 3-4 notes.
Measurement (13 hrs.) Length • Distinguishes between near, far, thin, thick, longer/taller, shorter, high, low. • Seriates objects by comparing their length.	**Measurement (13 hrs.)** Length • Measures lengths and distances along short and long paths using uniform (non-standard) units, extends to longer lengths.

Class II	Class III	Class IV
Division • Explains the meaning of division from context of equal grouping andsharing. • Relates division with multiplication. • Completes division facts: – by grouping – by using multiplication tables.		
Mental Arithmetic • Adds and subtracts single digit numbers and two digit numbers mentally. • Doubles two digit numbers mentally (result not exceeding two digits).	**Mental Arithmetic** • Adds and subtracts multiples of 10 and 100, mentally. • Completes multiplication facts by adding partial products, mentally (e.g. $7 \times 6 = 5 \times 6 + 2 \times 6$).	**Mental Arithmetic** • Estimates sums, differences, products and quotients and verifies using approximation.
	Fractional Numbers • Identifies half, one fourth and three-fourths of a whole. • Identifies the symbols, $\frac{1}{2}, \frac{1}{4}, \frac{3}{4}$. • Explains the meaning of $\frac{1}{2}$, $\frac{1}{4}$ and	**Fractional Numbers** • Finds the fractional part of a collection. • Compares fractions. • Identifies equivalent fractions. • Estimates the degree of closeness of a fraction to known

Class I	Class II
• Measures short lengths in terms of non-uniform units (in the context of games for example, *Gilli Danda* and 'marble-games'). • Estimates distance and length, and verifies using non-uniform units (for example, hand span etc.) **Weight** • Compares between heavy and light objects. **Time** • Distinguishes between events occurring in time using terms -earlier and later. • Gets the qualitative feel of long and short duration, of school days v/s holidays. • Narrates the sequence of events in a day. 	**Weight** • Compares two or more objects by their weight. • Appreciates the need for a simple balance. • Compares weights of given objects using simple balance. **Capacity (Volume)** • Compares and orders containers in terms of internal volume(capacity). • Orders given containers as per their capacities on the basis of perception and verifies by pouring out etc. **Time** • Gets familiar with the days of the week and months of the year. • Gets a feel for sequence of seasons (varying locally). • Sequences the events occurring over longer periods in terms of dates/days.

Class II	Class III	Class IV
	• Appreciates $\frac{3}{4}$ equivalence of $\frac{2}{4}$ and $\frac{1}{2}$; and of $\frac{2}{2}$, $\frac{3}{3}$, $\frac{4}{4}$ and 1.	fractions ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$ etc.) • Uses decimal fractions in the context of units of length and money. • Expresses a given fraction in decimal notation and vice versa.
Money (5 hrs.) • Converts Rupees to Paise using play money. • Adds and subtracts amounts using column addition, and subtraction without regrouping. • Makes rate charts and bills.	**Money (5 hrs.)** Money • Converts Rupees to Paise. • Adds and subtracts amounts using column addition and subtraction with regrouping. • Uses operations to find totals, change, multiple costs and unit cost. • Estimates roughly the totals and total cost.	**Money (5 hrs.)** • Applies the four operations in solving problems involving money.

Class I	Class II
Data Handling (6 hrs.) • Collects, represents and interprets simple data such as measuring the arm length or circumference of the head using a paper strip.	**Data Handling (6 hrs.)** • Collects data through measurement. • Represents the data followed by discussion (e.g. heights of children). • Collects and presents the data on birthdays. • Draws inferences from the data at the appropriate level.
Patterns (10 hrs.) • Describes sequences of simple patterns found in shapes in the surroundings and in numbers, e.g. stamping activity using fingers and thumb. • Completes a given sequence of simple patterns found in shapes in the surroundings and in numbers.	**Patterns (10 hrs.)** • Observes and extends patterns in sequence of shapes and numbers. • Searches for patterns in different ways of splitting a number. • Creates block patterns by stamping thumbprints, leaf prints, vegetable prints, etc. • Creates patterns of regular shapes by stamping.

Class II	Class III	Class IV
Measurement (21 hrs.) **Length** • Appreciates the need for a standard unit. • Measures length using appropriate standard units of length by choosing between centimetres and metres. • Estimates the length of given object in standard units and verifies by measuring. • Uses a ruler • Relates centimetre and metre. **Weight** • Weighs objects using non standard Units. • Appreciates the conservation of weight. **Volume** • Measures and compares the capacity of different containers in terms of non-standard units. • Appreciates the conservation of volume.	**Measurement (21 hrs.)** **Length** • Relates metre with centimetre; • Converts metre into centimetres and vice versa. • Solves problems involving length and distances. • Estimates length of an object and distance between two given locations. **Weight** • Weighs objects using a balance and standard units. • Determines sums and differences of weights. • Estimates the weight of an object and verifies using a balance. **Volume** • Measures volumes of given liquid using containers marked with standard units. • Determines sums and differences of volumes.	**Measurement (26 hrs.)** **Length** • Determines area and perimeter of simple geometrical figures. • Applies the four operations in solving problems involving length, weight and volume. • Relates commonly used larger and smaller units of length, weight and volume and converts one to the other. • Applies simple fractions to quantities. • Converts fractional larger unit into complete smaller units. • Appreciates volume of a solid body: intuitively and also by informal measurement. • Uses addition and subtraction in finding time intervals in simple cases.

Class II	Class III	Class IV
Time • Reads a calendar to find a particular day and date. • Reads the time correct to the hour. • Sequences the events chronologically.	• Estimates the volume of a liquid contained in a vessel and verifies by measuring. **Time** • Computes the number of weeks in a year. • Correlates the number of days in a year with the number of days in each month. • Justifies the reason for the need of a leap year. • Reads clock time to the nearest hours and minutes. • Expresses time, using the terms, 'a.m.' and 'p.m.' • Estimates the duration of familiar events. • Finds approximate time elapsed by (to the nearest hour) forward counting. • Computes the number of days between two dates.	

Class II	Class III	Class IV
Data Handling (6 hrs.) • Records data using tally marks. • Collects data and represents in terms of pictograph choosing appropriate scale and unit for display through pictographs. • Draws conclusions from the data by discussing with the teacher.	**Data Handling (6 hrs.)** • Collects data and represents in the form of bar graphs; • Draws Inferences by discussing with the teacher.	**Data Handling (6 hrs.)** • Collects two dimensional quantitative data. represents the data in the form of a table. • Draws a bar graph or a pictograph to present a data.
Patterns (6 hrs.) • Identifies simple symmetrical shapes and patterns. • Makes patterns and designs from straight lines and other geometrical shapes. • Identifies patterns in the numerals for odd and even numbers and in adding odd and even numbers. • Partitions a number in different ways. • Identifies patterns in his surroundings • Identifies patterns in multiplication with, and dividing by 10s.	**Patterns (6 hrs.)** • Identifies patterns in multiplication and division: multiples of 9, • Casts out nines from a given number to check if it is a multiple of nine. • Multiplies and divides by 10s, 100s. • Identifies geometrical patterns based on symmetry.	**Patterns (6 hrs.)** • Identifies patterns in square numbers, triangular numbers. • Relates sequences of odd numbers between consecutive square numbers. • Makes border strip and tiling patterns.

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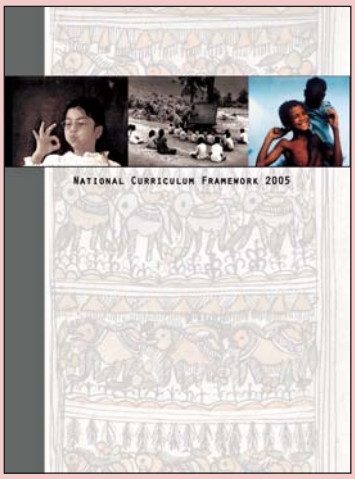

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