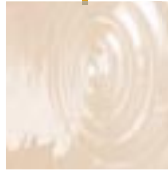


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About the Learning Network

The learning network is a network of groups exploring various approaches to holistic learning. It is a resource for educators, parents and organizations seeking meaningful approaches to education.

For more information on workshops, seminars, publications and members, Contact us at
Web www.learningnet-india.org
Email info@learningnet-india.org

Volume 3, Issue 1
September 2006

Chiguru

Learning Network Newsletter



Dear Readers:

Greetings. We release this edition of our newsletter with great pleasure and hope you find it resourceful, thoughtful and endearing to your work. We set out to design this

Inside this issue...

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issue of Chiguru with a flurry of ideas. As we settled down to gather our thoughts and work, we decided to include Jyotibhai Desai's keynote address from this year's conference - it is a story to read and live. Soon poems, websites and other stories lead us to open up new chambers of thoughts. Our Sharing corner is definitely child-centric with a deeply moving story, poems to lighten a science classroom (yes - science!) and any young child's experience. Our Viewpoint section with the dilemma on modern education is bound to resonate with you all. We welcome your comments and takes on the readings. We feature a new website that is again child friendly and nature loving

..so read on and click away to explore all the ideas in this issue.

Sincerely,
Newsletter Team
(Reshma, Meenakshi, Anita,
Jayashree, and Veena)

We thank the contributors to this newsletter. Most importantly, the learning network thrives on members contributions, comments on current articles and feedback for the next newsletter.

Please email us at info@learningnet-india.org. The newsletter is also available on our website at www.learningnet-india.org

Viewpoint

Dilemma of an Educator

Fr. Godfrey D'Lima, of Shirpur Vishwa Mandal Sevashram shares his views on the real education happening across the State and in the world today. Read on for more insights and experiences in this regard

We have long passed the facile explanations of why many communities do not pursue formal education even to becoming "literate". Besides indifferent teachers, there is the problem of an indifferent syllabus. In a country with geographic, cultural and many other variations, this is to be expected. What can the State do to inclusively educate all of us? The State designs text books, makes rules for teacher recruitment and payment, estimates success levels, and tries hard to control education so that the education system does not develop into a free for all process in which it becomes difficult to decide who is educated and who isn't. The public too abhors a vacuum in parameters that help declare who is within the educational moulding and who has fallen out of it. Ultimately, everyone wants to "gain" from education.



But when the gains of education have so evolved that all cannot achieve them then there is only one real achievement education is all about: to outcompete everyone else in laying claim to gains. These gains, if analysed, amount to jobs, higher salaries, profitable public offices, financial well-offness, economic wealth. So no one learns to understand, seek for truth, or develop some altruism, enhance nature, find answers to human problems as the highest goal of education. These aims of education are regarded as "by the way".

"I am amused at the cowherds in our hillside hamlets saying that after two years of our non-formal classes (which at least seem to have functioned when the formal system just gave up in those regions) they, at age 10-11 years, have had their "education" and must get back to livelihood supporting activity. The education they would pursue would not gain them any income or life supporting wealth. So why continue getting literacy or numeracy. Don't their fathers and mothers calculate competently as needed. Do they not orally transact the most complex of land deals and other social decisions without writing a single letter.

Do they not dance and sing without scores or written lyrics? Do they not maintain their religious fervour without written scriptures or stultifying ritual codes?"

If in the pursuit of economic gain some of these crucial attitudes to human survival are thrown in everyone is happy. But these attitudes never come in the way of the educational focus: *economic gain*. This focus is especially implicit in the entire process of formal education. If then so many communities, of rich and poor, of various castes and clans as we are privileged to see society truncated by, can find economic gain through noneducational pursuits, they will not enter the educational mainstream. This applies to the child of the shopkeeper who drops out because it is more profitable to learn practical commerce in the market than in the classroom. And it applies to scores of poor labourers and farmers whose children drop out of primary school much before they even remotely reach functional literacy. As to exhorting voters to select educated politicians it seems superfluous since the politician has found her or his way to economic power without formal tutelage. Education is a devious process. It claims to build up society while what it really seems to be doing is asserting the superiority of minority sections that outcompete others in order to restrict claims to limited economic assets. For instance the masses of labourers that work in harshest conditions to get a modern mall up will be paid a fraction of what the accountants and auditors, or the managers will amass although their labour is as crucial to development as that "service" rendered by the presumably more educated professional.



Now this is not just a problem of the political State - that we glibly accuse of neglecting the field of education. It is the problem within us individually and as societies and nations within nations. We don't have any other ultimate goal of education than economic gain.

We shouldn't be surprised if education does not make headway when people find economic gain outside the educational processes - both formal and non-formal.



The labourer's education will be cited as being deficient and hence cannot be compensated as well as the professional is. The ostensible reason for discriminating against the labourer and the peasant is that their crucial service does not emerge from long years of formal education which is the privilege of those who can afford the system. The real reason is that if the labourer and the peasant were to be justly compensated the professional class would have to be compensated much less for their presumed to be superior services to society.

Is education about certifying a greater variety of indigenous processes of learning that perhaps don't even need such certification?

How are public resources to be used for education? What about accountability in educational processes?

Having articulated the fraudulent impact of education the dilemma still remains about how can education enhance human potential? Does education really need standardized achievement goals that are universalized to assess levels of achievement? There is a highpitched cry for State presence (read financial subsidies) in education which means State sponsored competition processes for the elimination of some citizens in favour of others (even within the so called backward groups as well as the "highborn" ones). This cry is not for the universal development of human potential which education should be concerned with. It is a cry for the limited pie to be devoured by a few more contenders who have been subsidized in their education pursuit. Not that this method of claiming egalitarian benefits is dispensable. But whether this political agenda strikes at the heart of the educational challenge one wonders. To build an education that is inclusive and that makes human enhancement as its sole objective seems utopian and impractical. What are we going to do with billions of human beings who have been empowered in their own genius. How are we going to stop them from aspiring to the wellbeing that a privileged few now claim as a right.

This is the dilemma of education, or at worst, just one articulation of it.

You can contact the author, Fr.Godfrey D'Lima, S.J. at Shirpur Vishwa Mandal Sevashram, Shirpur, Dt.Dhule 425405, Tel. 05263 255561, Email: shirpurvishwamandal@sancharnet.in



The "viewpoint" section in this newsletter is a common space to express your views and ideas and further thread conversations featured in this and previous issues. We welcome you to write to us at info@learningnet-india.org

Sharing Corner

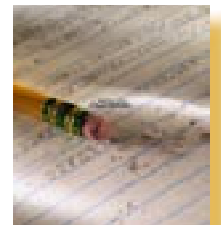
Scars of Childhood

This reflective and intuitive article comes to us from Sheel of Spark-India, a teacher resource unit based in Hyderabad.

1982. I am not quite fourteen, a fat, quiet, academically bright child, rather less liked than disliked by my peers, but certainly ranking high in the opinion of my teachers, and therefore in my own. I have been the class monitor, and the Head Girl, and know what it is to be in control, and to exercise power. It is a heady feeling to be on top... the wooden foot ruler is my friend, and any hint of resistance is easily put down with its aid. The pen and paper are friends too: it is easy for me to put down the names of 'offenders' and give it in to the teacher, knowing fully well that punishment will be meted out to them.....

Miss M J is young but disciplined and dignified in her starched cotton saris and sleeveless blouses. To me, she is the epitome of what a teacher ought to be. Her lessons are fascinating, riveting – they take me away into imaginary worlds that have much that is strange and new to offer; at the same time they teach me a lot about human beings and their behaviour. She unveils for me the magic of Shakespeare, first with *Julius Caesar*, and then *Macbeth*. I do not know it yet, but she has made me fall in love with poetry, with English literature, with literature in general... She also praises my work, and sometimes holds it up as an example to the rest of the class. I worship her. The bell invariably seems to ring far too early when she comes to class.

Two incidents close together soon break these dreams. The first is Uncle Podger. Uncle Podger is actually a character in a story in our non-detailed text. Never can he get anything done right. Each time he undertakes to do some little job or the other, he creates a furore: he needs all the household to help him, and drives everyone crazy with his demands. At the end of it, the quality of his work will not pass muster, and a professional has to be called in to repair the damage that he has done. "What would you do if you had a Podger in your family?" her question sets off a chain of thoughts. My first thought is, "I would probably slap him." The idea of having someone keep messing things up, and then picking up behind them is not something anyone would be overjoyed about. Then I wonder – would I really do that? Would it not be better to convince him to do something else instead, or to send him away when some work needed to be done, so that it could be completed before he returned?



I now have an answer to write out, and very little time to do it in – I have spent too much time thinking, as usual. I could still write the second thought down, but would that not be dishonest? Ms. M J hates dishonesty. I put down the first thought, and forget about it. Two days later, our books are returned. Ms. M J asks, “Who wrote ‘I would probably slap him?’” I am mystified – by now I have forgotten that it is me, none else. While I take time to realise that, Ms. M J is finding fault with those who cannot be kind, gentle and understanding – meaning me. I am sorry, Ms. M J, I really am sorry, I want to say; I want to explain my thought process, but in the face of this charge, I stand silent, ashamed, unable to own up.

The second incident follows, within days of the first. I am a voracious reader; a book a day is my staple diet. The single library hour in the week is constricts me, the rules test my endurance: I look longingly at the books, rows and rows stacked neatly in the glass cupboards in the alcove under the stairs that serves as the library, each morning as I arrive, and during the breaks, and as I leave wistfully at the end of the day. I am eager to borrow a different book each day – the librarian humours me sometimes, but not always. I am in the library every period that happens to be free... I try to convince the librarian – I finish reading the book I have borrowed the self-same evening, so does it not follow that I can be given one each day? I could return the old one during the lunch break, and take another. But rules are rules, she assures me, and have to be followed.



No books for me except at the librarian's whim.

And one day, she is too occupied, and I am impatient. Perhaps she is too tired of me, too. I can NOT have another book in the lunch hour. I feel let down, but perhaps I can still return the book I have to the shelf. Perhaps I can still run my fingers across the books I love so much and console myself that I can pick one another day. So I offer to return the book to the shelf. The librarian rejects the suggestion, then her eyes narrow. She asks me if I want to take another book

Her meaning is clear – she thinks I want to steal a book. I balk – I only meant to put the book back. I shake my head, “No.” But she will not let me go – in front of all the teachers in the staff room she repeats her question, strongly now – “You wanted to take another book, didn't you?” I resist, but she asks again and yet again. The bell is going to ring any moment, I do not want to be late. She does not look like she is going to let me go without a yes for an answer. I say ‘yes’, just to get her out of my hair, and, as a nasty smile spreads across her face, I turn and run to my classroom.

Miss M J has witnessed the whole incident. And immediately she comes after me and takes me to task. I am stunned; I cannot believe that she can believe I will do such a thing, no matter what I have said. I stand quietly as her anger rains upon me, anguished but unable to break the silence and tell her what had really transpired. I NEVER meant to steal, I love books too much, I want to tell her. Do you too misunderstand me? Miss M J leaves the school soon after. I have had no inkling that this is coming, and for a very long time I feel guilty – I have disappointed her, not once, but twice. Perhaps I am responsible for her going away? I blame myself for this; I get into the practise of blaming myself for things I have had little to do with.

“Little” things matter so much to children. Today, it is more than a quarter century since then, and I have worked needless guilt out of my system (thanks to other good teachers and caring friends). But not everyone is so lucky. The tragedy of adulthood is that we forget how much the little things matter, and healing the scars of childhood takes a long time. One cocoons oneself, shields oneself from hurt, and in the process closes oneself to others. If one is not careful, the child can end up a wilted flower...

I hear Haim Ginott, “As a teacher I possess tremendous power to make a child's life miserable or joyous. I can be a tool of torture or an instrument of inspiration. I can humiliate or humour, hurt or heal. In all situations, it is my response that decides whether a crisis will be escalated or de-escalated, and a child humanised or de-humanised.” As adults, as teachers and parents, we need to be aware of our own power over the children we interact with, to soothe away the pain when we have hurt a child, and make sure we do no harm!

“Today, it is more than a quarter century since then, and I have worked needless guilt out of my system.”

You can contact Sheel from Spark-India at sheel.sheel@gmail.com. Spark-India is a teacher resource unit based in Hyderabad. Spark-India was set up to address the felt need for educational resource material rooted in an Indian reality and with impeccable content and production quality. Spark-India's materials are dedicated to make the teaching and learning process easy, useful and enjoyable, and include not only books but also VCDs and a magazine for teachers called *Teacher Plus* (see www.spark-india.biz)

The Sharing Corner section is a space to share your experiences, experiments, announcements and learnings for our readers to reflect on and contact you too! tell us what you think ... info@learningneto-india.org



Learning Spotlight

Jyotibhai Desai

Jyotibhai Desai, a respected, reknowned satyagrahi who participated in the Quit India Movement is the founder of Vedchchi Ashram. Since 1950 he has been striving to realize the Nai Talim perspective of education. During his association with the Gandhi Vidyapeeth he developed a B.Ed Program related to Nai Talim here. We have profiled his work here and published his keynote address at the Learning Network's 2006 Annual Conference.



Jyotibhai Desai began his work much before many of us reading this. During the "Quit India movement" he was arrested in Mumbai and in 1944 released from Byculla Jail. After this, inspired by Gandhiji's thoughts, he learnt the basics of educational philosophy at Bhavnagar, Gujarat along with son of Gijubhai Bhadeka. Jyotibhai Desai has worked to manifest "Nai Talim" concept in educational movement since 1950.

When Gijubhai's life partner Smt. Tarabhen Modak started the work to spread pre-primary education at Thane, Maharashtra, young Jyotibhai worked shoulder to shoulder with her and conducted balmandir and aanganwadi programmes at Bordi village. For a longtime he worked as a teacher at the Gandhian institute "Lok Bharati" established at Bhavnagar, Gujarat for village education and development. He received his undergraduate degree at London University in 1957 and then International course in Education at Oxford University in 1975.

In 1960 Gandhi Vidyapeeth was established by Jugatram Dave at Vedchchi, Surat Zilla and Jyotibhai was called to start a Teachers training Programme. There, for nearly 20 years, he developed a B.Ed level teachers training program for "Nai Talim" schools. Jyotibhai had been member of several state level and national level Government and Non-Government organizations and institutions like Gujarat State Secondary Board Education (1975-82), CABE, (Central Advisory Board of Education) (1990-94).

In 1984 he retired from Gandhi Vidyapeeth and established his home right opposite to Gandhi Vidyapeeth. From that day he has increasingly participated in numerous people's movement and taken the lead. Whether it's for stopping industrial pollution movement at Tungabhadra river in Dharwad zilla, Karnataka or the struggle of villagers right for "water-forest-land" or Narmada Bachao Andholan. In between he worked as a volunteer of the "International Peace Brigade" to stop wars in the various countries of Central America.

Whether it's for human rights, pre-primary teachers training, or youth camp organising, Jyotibhai has been accepted as a "Guru" for these areas of community service. He strongly believes in education's active role towards rehabilitation of society.

Viewpoint

Let us help children learn

One of the highlights of the 2006 annual conference at Ahmedabad was the keynote address by Jyotibhai Desai. His simple yet profound words, and experiences inspired all participants and encouraged everyone to reflect on themselves and their work. We share below a summary of this session.



Can you describe the vedchchi ashram?

Vedchchi is a rural village, perhaps with the maximum number of freedom fighters in India today, especially many women. The person who taught Kasturba to read and write was from Vedchchi. Such is the tradition of Vedchichi. During the freedom movement, Gandhiji felt that the tribals also needed to join the farmers and peasants in Satyagraha. The ashram was started by Jugat Ram. He prepared the tribals to make a new society – not just educate Adivasis but help them participate in the freedom movement. Slowly I realized that I have met a person who is open to learning, prepared to correct himself and his mistakes when pointed out by any one – including those who was younger to him. His love and character made me continue to stay at Vedchchi.

We have heard vedchchi ashram is self-sufficient?

Vedchchi is just like any other village. What it used to be, it isn't. People have to see their lands, with certificates in hand, they are in search of jobs. It is only an illusion to think of the ashram as self-sufficient. It is not possible to isolate the ashram from the village. It is dependent on the outer world, the same way the village is. We however try to minimize dependence as much as possible.

What is Nai Taleem?

Nai Talim.....it is a dream. It is an effort to build a society anew. It is not just education. It was an effort to help people change/reconstruct their lives. Such things have to be thought/taught. These are related to issues we deal with everyday life. It is an understanding of our lives. Where we are? Where we go? How are we going about it? To understand life around us. How are we going to learn something new?

How do you include it in a B.Ed Programme?

The B.Ed program that started in Gujarat Vidyapeeth no longer exists. We never used to admit people. People decided on their own. They would stay for a while and decide what they want to do, whether they can learn it here. Admission was done by a Festival of Admission (Praveshotsava) which involved the entire community. Students seeking admission used to bring along a member of family or guardian to the festival. This was important as we believed that the family

A detailed article by Jyotibhai Desai on the festival of Admissions can be found at www.learningnet-india.org/lni/data/articles/festivalofadmission.php

also needs to understand what the trainee will be doing here and where they are going. Each applicant could discuss with teachers, current students and ask questions they had. He could see the work, interact and get the feel of the program and university. The applicants were asked to spend time with children and their interactions were observed. Thus we gave time to get to know each other. At the end of the festival, each applicant had to do something that they were good at. And full resources would be provided to the applicant to do this task. For e.g one girl who knew to make 'batatawadass' (potato pancakes) well, made it for all of us, a boy who knew how to make a soak pit was given the required material like stones etc. and he made soak pits in the entire campus. After the festival, admissions were decided based on observations and applicants response.

One of the students was very confused. He wanted a 1st class percentage in college exams, but felt he was not learning anything. But there were no exams. He approached Jyotibhai and expressed his confusion and concerns about getting 1st class. Jyotibhai said if you want to get 1st class, you go and get it. I don't want that. So you are responsible and I am not. The student expressed concern that there was no timetable, no exams and wondered what will happen to him.

What is the influence of theatre today? Drama of harishchandra, Shraavan kumar had an impact on gandhiji - today we do not see anything like that. TV has taken over. What can be done to influence children?

There are so many messages around. We must keep our antennae open. WTO protest, Palestine issue, films like rang de basanti, all have something to tell us. We get so many messages from outside.

Jyotibhai then suggested to him that – if you think you are not happy, or have questions, why don't you bring this up at the evening meeting and we all can discuss on this together. He agreed to that and that evening they discussed. After a few days, Jyotibhai saw this boy hurrying to go somewhere. He called out for him so he could find out how he was doing. The boy stopped and quickly responded that he was very busy and did not want any disturbance, that he had lot of work to do! The boy had found what he wanted to work on and did not feel lost any more! This was the aim of the B.Ed. program, to help people find what they truly wanted to work on. To develop school teachers who are also participating citizens, who get involved in social constructive work. They travelled to different parts of the country, to other countries to work with others who were involved in changing the social situation in that area. Everywhere they went they did not have language problem...they spoke the language of love.

Our group participated in the satyagraha movement in 1980s to stop the Dharwad Dist Grasim Rayon polluting Tungabhadra's water. Once he and his group went to Assam lived among the poor people, learned Bihu dance Assamese. They got lot of love and it was a different experience. They went twice there to start balwadis. Children and mothers respond to love, they become a part of us, they get entwined. This was something he learnt. Jyotibhai warmly remembered the love and the warmth as after 26 years, he still get letters and rakhis from them. We worked in Nalbari as well and set up children's educational centers. So we went from one village to another doing practical work.

What is the model of child centered school that you start in these villages?

This is not any model. We will not start any school. We have not made a note. We learned how children are the centre of the village. The effort was to play and stay with the children. We would split into smaller groups and were to follow the children, be with them and go with them wherever they went – fishing, playing etc. be with them, learn and observe. This was our model of child centered learning. From these observations we developed a center.

We learnt a lot about the community and the society by being with children. Children's thinking is very different. They relate to their surroundings and pick up things very fast. One day when he was working on his charkha when the children in that village came to him, he told the children not to touch the Charkha, else the teachers from Gujarat will beat you. Children laughed and said – we know that the teachers from Gujarat are very nice and will not beat...Everyone knew they would instead play with the children. Wherever we would find children outside playing when classes were happening, we would start playing games so every one would get together.



Any message for us who think of education as a mode of change?

I haven't anything to say. Gandhi's message 'go to the people, work with them, serve them' and go find what you are looking for yourself – the same answer I gave the boy who was at the Vidyapeeth.

Do you think it is possible to do civil disobedience in today's context?

Australian Thomas Weber and one of his friends decided to deduct the amount of defense percentage budget from the tax he needed to pay. He said instead of that he will distribute spades to the people to work in the fields with this money. There was a lot of pressure by Income tax and Australian SC, but he refused to give and finally under some law he was allowed to keep up with his decision.

When Gandhiji went to South Africa with Kasturba, he said to her, here our marriage is not legal, and you are my mistress by this law. Now you decide what you want to do. She went to jail and challenged the system. When you decide you should also be strong to face the challenges for the decision taken. You need to believe in your ethical system.

How will you protect Gandhi's principle ?

Who am I to defend Gandhi. He has not asked me to defend him. I have not taken that role. He's very much alive to defend himself and sends messages. What made Narendra Modi C.M. Gujarat to distribute Khadi on Gandhi Jayanti. He had to do that because Gandhi has sent his messages. So no one needs to defend Gandhi. Let us all do our work. He will take care of himself.

What about the B.Ed program? Why did it close?

It has actually not closed in some ways. I am hesitating to blame anyone or anything. I am still doing this work. 80 – 90 people who went through the program found work and are doing well. Any dynamic work takes a while to accept. Society expectations are not stagnant. It keeps changing. Now, in the welfare state, inter relationship between state and institutions, it could become a hurdle to dynamic changes. However we will continue what is going on.

Your Copy Of Revive

The Learning Network publishes a yearly magazine - Revive which contains thought provoking and resourceful articles related to education. To receive your copy of Revive 2006, please send a

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Learning Spotlight



Homi Bhabha Center for Science Education

Homi Bhabha Centre for Science Education (HBCSE), Mumbai is a national centre at the Tata Institute of Fundamental Research. Aiming to promote and encourage scientific literacy in the country, it carries out research and development, teacher orientation, science popularization, and students' nurture programs. In the 30 years since it was started, HBCSE is a centre for Olympiad programs in Mathematics, Physics, Chemistry and Astronomy.

Sponsored by the JN Tata Endowment Trust, HBCSE has developed different types of curriculum with textbooks based on action research projects. They emphasize a friendly teacher-pupil participation in the learning experience. The curriculum is also interdisciplinary so as to prepare citizens for coping with the modern technological society. Teachers' handbooks are prepared to give guidelines to classroom teaching. Compiled from field experience, they prompt the teachers to be effective in their own environments.

The Centre offers orientation courses for Science and Mathematics teachers from primary to secondary levels, and for teacher educators and resource persons. Innovative tools like video-taped classroom situations (featured at the Learning Network's conference) help teachers to reflect on actions and identify what changes they can bring about in their teaching practices. These tools also help teachers to introspect and improve themselves and make classroom learning an animated and joyful experience for students.

HBCSE runs a graduate school in Science education leading to a PhD from the TIFR, a deemed university. These courses include research methodology, cognitive psychology, sociology of education, history and philosophy as related to science and mathematics education, and includes field and project work.

In this newsletter Beena Choksi of HBCSE has written about the use of Poems in Science Classrooms - read on for an interesting method! For more information, contact: Homi Bhabha Centre for Science Education, TIFR, V. N. Purav Marg, Mankhurd, Mumbai, 400 088. Ph: 022 – 2556 7771, 2555 7711. Web: www.hbsce.tifr.res.in. Contact them for their feature conference epiSTEME-2, to be held in February 2007



Sharing Corner

Poems in a Science Classroom

HBCSE invited teachers on their small-science mailing list to share their thoughts and experiences of using poems in their science classrooms. Beena Choksi (beenac@hbcse.tifr.res.in) sends in a few excerpts of this discussion.



The Earthworm -John Updike

We pattern our Heaven
on bright butterflies,
but it must be that even
in earth Heaven lies.

The worm we uproot
in turning a spade
returns, careful brute,
to the peace he has made.

God bless him; he
gives praise with his toil
lends comfort to me,
and aerates the soil



Immersed in the facts,
one must worship there
clastrophobia attacks
us even in air.

1960 coyright by John Updike

What purpose does a poem serve in a science lesson? How is it to be used in teaching science?

This was a concern raised during a teachers' camp attended by teachers from a few schools in Maharashtra (primarily outside Mumbai) who use the Small Science texts of the Homi Bhabha Curriculum for Primary Science. Here are points of view about using poems in science classrooms shared by some members of the Small Science mailing list who are involved in science education.

Maya Menon of The Teacher Foundation, Bangalore, wrote in saying that when she was a high school teacher of science in Delhi, " I used to regularly use poems in my biology classes. Poems encapsulate feelings, sensations, thoughts and ideas in ways that are far more lyrical, evocative and engaging than ordinary explanations. For e.g I have used John Updike's witty poem on The Earthworm, to discuss the features/

characteristics of earthworms." Some of the great science writers of our times, have often used poetry to convey the beauty of some of our greatest scientific learnings - including writers such as Carl Sagan, J. Bronowski and more recently Richard Dawkins. On reading the poem 'The Earthworm' that Maya sent in, Jennifer Rodrigues of Shishuvan, Mumbai, responded that she would have learnt more about the earthworm when she was a student had she been introduced to it in this form! She feels that introducing scientific concepts through poems helps dispel the idea of science being a dry subject.

In this month-long discussion that took place on the Small Science list, we discovered the power and beauty of poems in teaching science. Do visit the HBCSE website (www.hbcse.tifr.res.in) which contains a small collection of poems contributed by some members of the Small Science list. Have you used poems in your science classroom? Write to Beena Choksi!

the hours rise up putting off stars -E. E. Cummings

the hours rise up putting off
stars and it is
dawn into the street of the sky
light walks scattering poems

on earth a candle is
extinguished the city
wakes with a song upon her
mouth having death in her
eyes

and it is dawn
the world
goes forth to murder dreams...

i see in the street where strong
men are digging bread
and i see the brutal faces of
people contented hideous
hopeless cruel happy

and it is day,
in the mirror
i see a frail man
dreaming dreams
dreams in the mirror

and it is dusk on earth
a candle is lighted
and it is dark.
the people are in their houses

the frail man is in his bed
the city

sleeps with death upon her
mouth having a song in her
eyes
the hours descend,
putting on stars....

in the street of the sky night
walks scattering poems



Lakshmi Madhusoodanan of Ahmedabad International School says that they use a lot of poems in the primary classes to bring in a fun element. "Children love repeating poems and in the process scientific facts also become a part of their knowledge. Mundane facts are encapsulated in miraculous words."

Karen Haydock of Vivek High School, Chandigarh, shared some ideas on how to teach poems. "I have read out loud several poems about the earth, sun, moon, stars, clouds, and sky, to students in English medium schools in Chandigarh. I like to show them different kinds of poems, ranging from all different kinds of songs to haiku, to unrhyming modern poems. After reading, sometimes I ask the students to write their own poems. I find I get the best results if I tell them that they should not write poems that rhyme. It is too distracting for them to worry about thinking of rhyming words, and that often makes the poems less spontaneous, less meaningful, less expressive, and less creative." In her experience, poems can be just read out for enjoyment. Or, they may be accompanied by drawing. Students can be asked to draw imaginative pictures to illustrate poems. Karen refers to the poem on night and day by the American poet E.E.Cummings in which there are references to different kinds of light, to show how relevant poems may be used to discuss science-related content.

Meena Kharatmal of HBCSE felt that poems serve to break the monotony by presenting science-related subject matter imaginatively and creatively. "Poems portray metaphor, paradox, discovery, humour, riddle/puzzles. Most of these features are considered to be important in the context of scientific inquiry."

Learning Spotlight

A Green Website for Children

Centre for Environment Education is a national Institute engaged in developing programmes and materials to increase awareness about the environment. CEE was established in 1984 as a Centre of Excellence in Environmental Education, supported by the Ministry of Environment & Forests, Government of India. It is affiliated to the Nehru Foundation for Development. CEE has a website for children's Environmental Education. www.kidsrgreen.org is an interactive website for children who love exploring, enquiring, investigating and discovering the world we live in.

www.kidsRgreen.org

This exclusive online monthly environmental magazine has many interesting features. Spaceship Earth, a regular feature in every issue talks about interesting aspects of our planet earth. Key points supported by illustrations help explore different environments, plant and animal life, and learn about systems that support the rich life on earth.



CEE's primary objective is to improve public awareness and understanding of environmental issues with a view to promote the conservation and wise use of nature and natural resources. In the Green Games section, children can "logon" and play games that not just challenge skills and abilities but set one thinking, and at the end convey an environmental message. The Let's Do It! section gives simple do-it-yourself activity ideas. Children can do them on their own, or with friends. The Celebrate a Day section has a calendar of environmentally significant days, giving a brief history or background of why the day is observed including some ideas for activities that would help anyone to observe these days with in school or with family and friends. The Krg Club is a forum where children can share poems, paintings and thoughts on the environment. It is a chance to let other children in the world know more about oneself and what one does to improve the environment. The Green Gifts section has attractive downloadable offers.

Kidsrgreen is a window to become part of a greener world. For more information, contact: Pankaj Gorana, Children's Media Unit, Centre for Environment Education, Thaltej Tekra, Ahmedabad, India
Ph: 79-26858002-9
Email: kidsrgreen@ceeindia.org

Learning Network Workshop

Jodo Gyan - Mathematics

The Learning Network organised a 3 city series of mathematics workshops in collaboration with Goodbooks teachers Center, Chennai and Asha for Education, Bangalore. The workshop was conducted by Sabyasachi and Komal of Jodo Gyan, New Delhi. Here are some highlights. Detailed reports are available at www.learningnet-india.org.

At the beginning of this year, the Learning Network asked Jodo Gyan to do a three city tour and they loved the idea. In January and February of 2006, Jodo Gyan engaged a total of 110 participants in 3 cities - Bangalore, Hyderabad and Chennai in 2-day math workshops in each city. The workshops focused on activity based learning of mathematical concepts for primary and middle school levels.



What was unique about these workshops was the availability of translation into local languages for the participants to have truly unique learning opportunity. The participants were very eager to learn and understand and equally willing to challenge their own thinking and others to create an inquiry based learning space during the workshop. The use of local languages made the session all the more interesting as many teachers who rely on the English language were also exposed to mathematical terms in Kannada, Telugu and Tamil - a skill set that is often lost in the common schooling systems. The workshop was demonstrative, interactive and hands-on. Participants used teaching-learning aids developed by Jodo Gyan for understanding various mathematical concepts.

Jodo Gyan has drawn on latest mathematical research and their experiences of the teaching learning process to develop their educational materials and teaching techniques. These materials are produced with the participation of community members in Shakurpur, a resettlement colony in Delhi. You may contact Sabyasachi of Jodo Gyan at E/12-13, Shakurpur, Near Britannia Chowk, Delhi 110034, Tel: (011) 27102820, Email: jodogyandel@yahoo.com

One of the main learnings worked through an activity was regarding how children comprehend instructions from teachers and communicate their understandings to their peers. Using Jodo Gyan's Rangometry kit, the participants were asked to partner up and back to back. Each participant constructed designs that needed to be duplicated by their partner. Sounds easy - but there was a catch. To construct duplicates, the participants could only listen to the instructions given by their partners. In this activity, to communicate effectively the partner recognized the key communication points needed to complete the design - a starting reference, a common set of understandings of shapes, step by step commands and the total number of pieces. Many associated shapes with various images they have seen around them! - as a child certainly would!

This was revealing as one participant said - "It was very difficult to clearly give instructions and understand the mathematical language without a visual". Often in math learning circles, the dependence is on textbooks and problem solving without concrete references. For primary and middle school goers, hands on, visual aids are essential.



Angles and spatial representation - a topic often not completely understood was addressed starting with the history of angles and geometry originating in Egypt. The jodo straws, a simple set of materials proved versatile and teacher (or child) friendly! Use of stories and actions highlighted how pre-primary and primary children can understand 1-1 correspondence. The usage of landmark of known and comfortable numbers with respect to addition was taught with an example using the Ganita rack and Ganita mala.

On the second day the audience was engrossed in a number of activities using Jodo blocks. Participants soon recognized that these modular unit blocks were simple and yet varied in their use. The participants came up with suggestions on how to use them to teach number patterns, develop hand-eye coordination, motor skills and many useful suggestions - a true sharing experience. Sabyasachi demonstrated their use to develop multiplicative reasoning, estimations, and area and perimeter concepts.

Many more details are on the Learning Network's website - www.learningnet-india.org Jodo Gyan encourages the participants to contact them with follow up questions and ideas for future workshops

Sharing Corner

No Way. The Hundred is There

We decided to give our readers something to nourish and enjoy in this Sharing Corner. This deeply moving poem is by Loris Malaguzzi, the founder and the guiding genius behind the early childhood program in Reggio Emilia, Italy.



"No Way. The Hundred Is There."

- Loris Malaguzzi
translated from Italian
by Lella Gandini

The child
is made of one hundred.
The child has
a hundred languages
a hundred hands
a hundred thoughts
a hundred ways of thinking
of playing, of speaking.

A hundred always a hundred
ways of listening
of marvelling of loving
a hundred joys
for singing and understanding
a hundred worlds
to discover
a hundred worlds
to invent
a hundred worlds
to dream.....



.....The child has
a hundred languages
(and a hundred hundred
hundred more)
but they steal ninety-nine.
The school and the culture
separate the head from the
body.

They tell the child:
to think without hands
to do without head
to listen and not to speak
to understand without joy
to love and to marvel
only at Easter and Christmas.

They tell the child:
to discover the world already
there and of the hundred
they steal ninety-nine.

They tell the child:
that work and play
reality and fantasy
science and imagination
sky and earth
reason and dream
are things
that do not belong together.

And this they tell the child
that the hundred is not there.
The child says:
No way. The hundred is there.

The **Reggio Emilia Approach** to preschool education was started by the schools of the city of Reggio Emilia, in Italy after World War II. The 'Reggio' approach was developed for municipal child-care and education programs serving children below six. With the child as a competent learner has produced a strong child-directed curriculum model. Teachers follow the child's

interest and do not provide focused instruction in reading and writing. The approach uses all forms of art, music, puppetry, drama, etc., as a symbolic language to express the child's understandings of experiences and work.