



SUMMER CAMP

2007

NAVNIRMITI

3rd floor, Priyadarshini Apartments, Padmavati Road,
Opp. IIT Market Gate, Powai 400 078. ph: 2577 32 15, 2578 65 20
www.navnirmiti.org navnirmiti@yahoo.com

organized by

NAVNIRMITI

QUALITY for EQUALITY



Acknowledgements

Learning, sharing, discovering, and a bit of growing up....Summer Camp 2007 was all this and more. Many thanks to more than 1000 children who came from 10 BMC and made this camp very special.

Our thanks to more than 200 community volunteers who supported the process throughout. Without their energy, enthusiasm and commitment, this camp would not have been possible.

Summer camp 2007 would not have been possible without the unstinting support of corporate sponsors such as L&T, Johnson & Johnson as well as organizations like Drishti, generous individuals and most importantly the Education Department of BMC.

Our thanks to the human resource and logistical support received from organizations like IIT, NITIE, Mobile Crèche, SPROUTS, HBCSE, and Nehru Planetarium. Thanks also to all the resource persons who shared their skills with the children at all ten venues. It made learning at the summer camp meaningful and joyful.

We hope that this summer camp will be a stepping stone to form a social movement promoting the values of our constitution, with participation from all the sectors in Navnirmiti's community initiative to bring the social change and achieve quality education for all!

Navnirmiti Team

Founder's Vision

The Navnirmiti Summer Camp team led by Dr. Nandkumar Jadhav deserves congratulations for reaching more than a thousand children from ten BMC schools this year with a rich and exciting learning experience.



Navnirmiti (NN) was born in the mass science popularisation campaign around the total solar eclipse of Diwali 1995. Over the years it has grown into an organization working committedly for universalizing quality math and science education. With the motto of "Quality for Equality", NN aims to reach the world's best educational practices to all who might otherwise not have access to good education.

Most people in India work in the unorganized sector, where they are denied basic human needs, labour rights and a decent human existence. Their children (more than 85% of all children) attend government schools/or are out of school. In these schools, today, most of these children will receive education of a poor quality which will ensure their continued deprivation and exclusion from their basic rights.

We are not doing these children a favour when we work for ensuring that they get a good education. On the contrary, it is a constitutional offence and violation if these children do not receive a good education. It is not enough to ensure that all children between the age of 6 and 14 are in school. What happens inside the school? That is equally, in fact, more important than just compelling children to attend school.

It does not require an elite school to give children a rich learning experience. The real world is a most exciting and powerful learning resource. Children can have fun making their own toys from everyday materials, and learn physics as well in doing so. The sun is a resource which the most affluent nation on earth could not afford to build, yet it is available everywhere, to everyone. With a pocket mirror and a plastic ball, children can build a solar telescope, study sunspots and discover that not only the earth, but also the sun rotates.

Writing your own street play, rehearsing and performing it does not require a huge budget or astronomical school fees. By doing so children can learn language skills and build up their confidence to face and challenge the world. When they go on the nature walk, they discover that the whole world is a wonderful laboratory, filling their lungs with fresh air and their minds with fresh ideas. Every town and village is a treasure house of learning, when we have eyes to see, hands to feel and minds to wonder. With this perspective it is possible to fulfill our constitutional duty to guarantee every Indian child a good education, beginning with what we have, with existing human and material resources and improving as we go along. Why only in the summer holidays? Why cannot every rural and urban school become a permanent summer camp all the year around?

Dr. Vivek Montelero
Founder - Advisor
Navnirmiti

About Navnirmiti and the Summer Camp

'Science for all' and 'Promoting a scientific temperament in all'; with this compass, Navnirmiti (NN) took its first steps towards forming an organization dedicated to science promotion and popularization.

Navnirmiti is today a self reliant organization (SRO), a social enterprise. Self reliance is important to us for two reasons. Firstly to break the prevalent misconception that social development is possible only through donations and funding and that without external funding it is not possible for a voluntary organization to achieve its social objective. Secondly self reliance ensures that we can work and grow without compromising on our principles and objectives. This is not easy. But it has been both challenging and rewarding. The major part of our work has been funded by our own income generating activity. As a policy NN does not accept foreign funding.

In its main area of work in math and science education, NN is trying to build its strengths systematically. We believe in 'Quality education for all' - especially for the very large numbers of disadvantaged children who are otherwise deprived of it. An effort to contribute to this constitutional mandate was initiated with an aim to strengthen the national agenda of 'Right to Education'. Our work in elementary math education is receiving widespread response and as a result our 'Universal Active Math' program for math universalisation has grown rapidly. NN has been a part of a number of nationwide mass science popularization campaigns like the solar eclipse and transit of venus campaigns of AIPSN and Vigyan Prasara. Our 'Sunderstanding' and 'Astrovision' programmes have reached thousands of school children as well as adults.

Today NN is widely recognized as an organization working seriously and committedly in the field of universalization of quality education. It works towards developing alternative ways and systems of mass scale implementation of Math and Science education, creating innovative world class educational aids and reaching them nationally as well as internationally. We believe that bringing about changes in education is essential to bring about a larger social change for promoting equality. Education for science and mass scientific thinking is especially important for this broader goal. Effective math education is a necessary foundation towards achieving this objective.

Self reliance, collective decision making, democratic functioning and a commitment to equality are the core principles driving NN.

Team members, their ideas, initiative and commitment have built and continue to build Navnirmiti. Through its work in various areas it aims at providing viable and decent employment. It has also incorporated an effort of providing sustainable employment to needy women through production of science toys.

We understand that our social / educational projects are only a means to connect with and bring together people and organizations who share common basic objectives and principles that aim at achieving goals which require much beyond the existing capacities.

The summer camp is an effort to tie together quality education and community involvement. For children studying in the BMC school quality education is the only gateway to empowerment and equality. Higher education for the majority of these socially and economically weaker children remains a distant dream. The aim of the camp is to expose the children to new dimensions of learning and involve them actively in this all round learning process.

Having started our work in this direction NN is extending its reach to the area of linking education and community initiative to bring social change. Integrated efforts with the community's active participation can have a deeper long term impact on substantially improving the quality of education.

The idea of organizing a summer camp for BMC school children began a couple of years ago and this year the camps reached over 1,000 children.

Participating children, active and enthusiastic neighborhood volunteers, friendly resource persons, NN members and support organizations have come together. Their whole hearted collective effort has made this experience memorable. This has instilled in us the confidence that reaching many more children, many more schools and many more communities is a real possibility.

This 'Summer Caravan' aims at going forward, taking many more in its fold, with hope and vigour, spreading the message of quality education for equality!

Jyoti Francis
Managing Executive
Navnirmiti

Engage, Enrich, Empower - The L&T approach.

Believing that sustainable development of community around the factory is important for the growth of any business, L&T's social investment begins by assessing the needs of the community residing in its neighbourhood at most locations like Mumbai, Hazira, Ahmadnagar, Mysore, Kansabahal, Chennai, Ahmedabad, Hyderabad, Delhi, Chandigarh, Kolkata, Fariabad, Bangalore, etc. This continued effort to activate social initiatives in communities where our offices and campuses are located in India has over the years strengthened our commitment in thrust areas that have evolved from MDG goals. Activities involved in conservation of environment, health & education, maternal and child health, primary education, sanitation, HIV/AIDS awareness, enhancing employability of youth etc with the active support from different government agencies and NGOs.

Education is the pillar for sustainable development. L&T believes in strengthening the education system through a holistic approach. It is important that education enables a child to live a healthy life where he or she can reach their actual potential. The question that needs to be asked is does the education our children receive, make them good human beings and secondly does it make them able enough to secure employment.

For an overwhelming majority of Indian children, the only means of education is through government schools. Keeping this factor in mind we have stated initiatives to bridge the critical gaps in the nearby municipal and government schools, to impart training to the teachers and students, setting up learning programs with experts for mathematics (Navnirmiti), science, geography and english, provide teaching aids and educational materials, recreational activities and construct or renovate school infrastructure. All this is done with the intention of making the schools more child friendly.

In Mumbai, the L&T project **UJWAL** is creating pre-schools, study centres, school and community enrichment programs like summer camps that impact the lives of over 7500 families in the neighbourhood.

This thrust is carried forward by our employee volunteers and spouse of employees across our locations through various mentoring and school development projects.

The Larsen & Toubro Public Charitable Trust, another social development arm of L&T has evolved '**Udyam**' - a strategy to address this concern and is operationalising Vocational Training Institutes across the country, three of which are already operational at Mulund in Mumbai, Kharel in Gujarat and Lonavala in Maharashtra. Alongwith free quality training it also offers a stipend. **The Vocational Training Institute in Mulund** provides 3 to 1 month skill-based training in formwork, masonry and scaffolding that would equip an individual for employment in the construction industry. In a recent experiment youth with hearing impairment, referred by the ngo DEEDS, were trained in masonry. It has successfully placed more than 100 students with well-known construction houses. At **Kharel in Gujarat**, a 6 month training in Agro Mechanics and Electrician training is conducted which is suitable to the job market of the region. At **Lonavala in Maharashtra** it provides a one-year course in Fabrication-Welding, Electricians and a 3-month course on Housekeeping. Therefore these institutions have been set up to best serve the needs of the neighbourhood communities.

Another project that the Larsen & Toubro Charitable Trust has launched is called "**Jeevan Vidya**". It is a project aimed at imparting skills to Tribal and SC/ST students from 35 schools (ashramshalas and schools run for tribal students by private institution) from Talasari in Thane district of Maharashtra and Navsari district of Gujarat. This project would impact about 12,000 students through various training and demonstration programs in the field of Personality Development, Health and Vocational Guidance. It aims for the overall development of the individual by giving emphasis on inculcating good habits in Reading, Personal Health, Hygiene and Diet.

The above educational and vocational training initiatives would use more holistic and innovative methods of instruction like demonstration and practicals, that give the student an on-the-job experience.

Thus the answer is to try to enhance and empower the children of today to be smart and live quality lives tomorrow. We believe that children form an integral part of society and are the country's hope for the future. Therefore if we invest in them it would mean investing in making an India that is educated, empowered and employed.

Ms. Sanyogta A. Raina
Manager-Corporate Social Initiatives
Larsen & Toubro Limited

Roles and Responsibilities of Volunteers

On Friday, 20th April, 2007, a pre-event session was organized for the summer camp volunteers at IIT, Mumbai. More than 150 volunteers comprising mainly young collegians, ananganwadi sevikas and activists across Powai, Vikhroli, Bhandup, Kanjurmargin and Vihar Lake areas came together for the preparatory meet.



Dr. Vivek Monterio, founder of Navnirmiti Trust, set the ball rolling with an inspiring speech invoking the thoughts, ideals and independent spirit of Shaheed Bhagat Singh.

The summer camp was an opportunity for both the children and the volunteers to enhance their skills, capacity building along with participating in a fun-filled learning experience.

Prof. T. Prasad of NITIE elaborated on the role of the volunteers during the summer camp. Each volunteer was to be the crucial link between the resource person and students. A volunteer will have five to six children under her care and she will have to keep the group interested and entertained, even as she contributes to the learning process.

The volunteers had a number of questions for the organizing team. "Is the summer camp only for BMC school children or can out-of-school children come too?" "Is Navnirmiti a private or a government organization?" Jyoti Francis from Navnirmiti answered many of these questions. She then worked with the groups from each area, along with Navnirmiti team to finalize the role of volunteers.

Inauguration

All camps took off with equal enthusiasm at their respective inaugural functions. The inaugural sessions had Navnirmiti representatives, school authorities, social activists interacting with the children and volunteers.



At the NITIE Camp towards the end of day one, a few guests from L&T and NITIE visited the camp and had an interaction with the children. R. N. Makhija, Member of Board and President (operations) for Larsen & Turbo, along with Dr. Awale, Director, NITIE, and Ramesh Aidasani, General Manager of K. Raheja Group came for a short visit. They chatted with children and volunteers, viewed the colorful masks and puppets and even tried them on.

Origami

Session: **Origami**

Resource Persons: **Leena Barve, Himanshu Aggarwal & Chitra**



Origami is the Japanese art of using paper to evolve new forms and shapes. It is a simple art involving just paper – not even glue or scissors are required! Children were divided into two groups, and the session was conducted by two resource persons.

Every child received a newspaper sheet, three plain papers, and a few square pieces of coloured paper. With these basic materials, the children evolved a flying bird, a flower, a self-rotating wheel, a plane and a paper basket to put them all in.



Leena Barve, a pre-primary school teacher from Vile Parle, has been conducting origami workshops with all age groups for the past three years. "Practicing origami helps develop your concentration, patience and above all, calls forth imagination and creativity", she said.



Each child followed the instructions diligently, working with the resource person, fold by fold. In the process, the children also came across concepts like angles and cones with each fold of the paper. By the end of the session, each child was moving around proudly donning a paper hat created by them.



Himanshu Aggarwal, a copy writer and voice-over artist with a deep interest in origami has been learning and teaching origami for the past 8 years. "Origami is quite simple to teach, learn and share, as the only material used is paper", he said.

It was a creative and enjoyable session with everyone from the youngest to the most mischievous attentively following the process and creating a little art piece, all by themselves.



Fun with Science

Session: Fun with Science
Resource Person: Anand Ghaisas

Anand Ghaisas is from the Homi Bhabha Centre for Science Education. He explained that the objective of a session on "Fun with Science" is to demystify scientific concepts by allowing children to explore and experiment with gadgets and instruments. Although many schools have laboratories, access is quite limited. "However, it is important to trust children with objects for experiment, so that they can learn a range of scientific topics in a thoroughly fun-filled way," he said.



A range of common day-to-day objects were used to demonstrate different concepts. A glass filled with water covered with a handkerchief, refused to drain when upturned. A conical flask showed how it had the "waters of four rivers" in it, while a plastic bottle quantified the amount of air we breathe in.



During a session at Tagore Nagar School in Vikhroli East, children understood concepts related to vision – seeing, perceptions, and persistence of vision – beginning with their own selves. By a simple experiment of observing their finger with one eye closed, children learnt that each eye views differently!



A view through a rolled up newspaper showed how distance and proximity of the object can play a few tricks on the eyes, a circular disc with grooves in it demonstrated 'persistence of vision', while a ridged tube swirling through the air showed how sounds could be created!



Each demonstration was followed by "ooh" and "accha", as children began grasping the principles. A loud exclamation that would follow as soon as a child got the idea behind it was the most gratifying part of the session. The demystification of complex "Laboratory Experiments" was complete.



Each of these processes was later tried out by children themselves. Children seemed quite confident in handling the equipments, without any supervision. They monitored and guided each other, also asking them to be careful while handling glass. Their excitement showed that they were motivated to learn more about science. Perhaps they would even come to learn more about reasoning, relating, thinking and loving it.

Astronomy

SUMMER CAMP 2007

Session: **Basic Astronomy**
Resource Persons: **Geeta Ladi**
Jatin Rathod



Earth, sun, moon, comets and some asteroids... The session on basics of astronomy began with a description of our skies. Conceptualizing the solar system based on words is a tough task for children. This session had photographs, slide shows and even a telescope for children to view the world beyond ours. From information about Jupiter's moons to the rings of Saturn, this session was filled with starry facts.



Geeta has a deep abiding interest in sharing knowledge of astronomy with children. "Children gape with wonder as each delightful secret from space is revealed," she said. And their questions were quite intelligent too. After a discussion on Asteroids and Meteors, and the meteorite-impact crater at Lonar in Maharashtra, the talk moved to Jupiter's gravity protecting the earth from the wayward asteroids. "But", asked Mangesh, "if Jupiter has no land surface, and if its gaseous, where does the asteroid hit and leave an impact?"



The vivid red of Mars, the cool blue of Neptune, the beauty of Titan, Saturn's moon, and Jupiter along with its four moons came alive on the screen. The slide show was conducted by Jatin Rathod, from the Nehru Planetarium at Tirandaz Village school at Powai.

In other schools, Geeta Ladi from Navnirmiti displayed graphics on the board complete with real photographs of planets and the sun to show the arrangement of solar system. It illustrated the position of the planets, its orbit as well as its size relative to the earth.

Following this, groups of children became 'planets' themselves and began rotating and revolving around their volunteer - the 'sun'. This process helped them to know the names of the planets as distant and unfamiliar as Uranus, and understand the concepts of size, rotation and revolution of planets within determined orbits.



Tricky questions apart, the children also had a go at the telescope. The image of the sun was reflected on a piece of paper, with its sunspots clearly visible. Children viewed and identified the spot correctly, while some were heard discussing the reason for sun spots as the turbulent air on the surface of the sun.

Before the sun went down that day, all children had a look at the sun through special sun-viewing spectacles. And as they left, children promised to look out for the "duk-duk tara" (Venus) in the evening sky!



Puppet Making

Session: **Puppet Making**
Resource Person: **Katta Babu**
Supported by: **Taramati**

Young children sat in groups with two didis. A paper cut-out of a crow was doing the rounds. Carefully, using a pencil, children outlined the crow onto their sheets, and cut them with the help of their didis. Some glue, a few strokes of color, a folded stick from the common broom, and voila! Around fifty crows started circling the room in no time!



Katta Babu has been working with children's groups using arts and crafts for the past 30 years. He is also part of the team at Mobile Crèche, an national-level NGO working closely with children of construction workers. A master of clay modeling and puppet making, he has also evolved many street plays and songs with children.

He firmly believes that children learn best from the do-and-discover approach. This was evident in the session as the children got the hands-on experience of making a stick puppet and a finger puppet.



With very few readily available materials, brightly colored puppets jostled for space within the group. Children were justifiably proud of their creations and possessively hung on to them even through lunch time.



After the puppet making session, the resource team also demonstrated how to use puppets by staging a show. The story, "Balwan Se Bada Budhi moan", featuring a strong tiger and a smart donkey held the young audience enthralled, with its dialogues and sound effects all made by the resource team from behind the parda.



Theatre

Resource Persons: **Manjul Bharadwaj & Kanupriya Pandit**
Supported by: **Rajkumar Kamble, Sangita Patil**
Mithesh & Rupak

Theatre has always been an integral part of the summer camp, and this year was no different. Resource person, Manjul Bharadwaj, has been conducting theatre workshops for children and adults across India for the past 15 years. The activities with children began with a few basic elements of theatre – finding your voice, learning to use your voice and impersonating characters. The high energy and stimulating exercises found the children exploring the range of their own voices.



Soft-spoken children charged with enthusiasm roared and whispered, hollered and squealed with unbridled delight. Different scenes – from a busy market place to a classroom, to police men marching on the streets, to a doctor's consultancy room – changed at the blink of an eye. Volunteers looked on amazed at children performing different roles with ease. They too were not spared of the hollering though!



Having grown in a culture where every adult would say "keep quiet", this session was a revelation. Here children could shout, were in fact encouraged to do so. They could also work as a team, where each child had to know their role, timing, and dialogues so that together they could put up a wonderful play.

17

Even before the resource person arrived, the children had assembled together, gulped down their breakfast and had begun practicing their group plays. The corridors of the school were reverberating with

*"suno, hum bacche, hum bacche,
kheina chalte apni baath, kheina chalte,
kheina chalte, hasna chalte....
Ho! Ho! Ho!"*



This process of learning was a lesson in unlearning. Children are capable of managing their activity quite by themselves. There is no need for a stick, or constant supervision, or commands like 'stay in the line', 'don't shout', and 'behave yourself'. It was important to facilitate the process rather than direct it.



Children came up with situations and dialogues, with little help from the volunteers. Tired out of practicing their lines, all the groups gathered together once again, before lunch to perform before their friends.

Other theatre personalities were also involved in processes with children. At Tirandaj Village School in Powai, Kanupriya Pandit worked with children on a script with colorful characters like policemen, vegetable vendors and robbers. Children excitedly donned the roles, and adding zing to these characters with their personalities. Mithesh and Rupak also assisted other children's groups to evolve their play. And soon enough the swagger of the policemen, the excitement of a bystander and the panic of a thief became evident in the play.

18



Street play

Performance: Street Play



Children had been working hard through the previous five days for this performance. They were all going together into the communities and putting up their plays diligently worked on along with the volunteers.



At Mishra Nagar, close to Bhandup Municipal Marathi School, in the east, the group began their invitation song.

*"bhandupche kakaji naatakala ya ya
bhandupche mulgi naatakala ya ya ..."*

By this time, most mothers, passerby's, and autowallahs had begun to stop and peer at the hullabaloo. Children put up a performance extolling the need for children to go to school. The 'actors', were loud and clear, in sync with the rest of the team, each doing her best for the final output. The group later performed at Bhavani Nagar, ignoring the afternoon heat and giving a fine performance that made both the children and the volunteers justifiably proud.



Children from Kanjurmarg Dockyard School tackled a variety of themes in their play - from superstitious beliefs in fake Baba Bengali's to corruption in everyday Mumbai. The anguish of the common man found an echo in their plays from the ever increasing rush in local trains to the traffic snarls in the city, the children enacted them all.



Comic dialogues evoked laughter among the audience. In one scene a careless doctor is told "appendix ketne ke badle, galp keti dyo!" In another contemporary scene, victims of the recent Mumbai train blast find a journalist pushing a camera into their faces while asking insensitive questions for "kai-tak" channel.



As Afreen, Jitesh, Sabanjum, Amit, Vinay, Vinod Deepak and Zahid said, this was "an intelligent and laughing drama". They thanked their teacher and their volunteer Kausar "appa" for teaching them helping them put up this "best drama" before their communities.

Magic

Session: **Magic**
Resource Person: **Siddharth Prabhakar**



"Magic" has always been considered a "closed art", says Siddharth Prabhakar, the "magician" for this session. The objective of this session was to demystify magic, and reveal the scientific principles at work behind most tricks. Usually most tricks involved simple physics at work – from air pressure, to magnetism to optical illusion.

The session did not however confine itself to magical tricks. During the introduction, the children gained a few tips on how to stand, speak clearly and present themselves before others. Each child had the opportunity to stand and talk about herself while the rest gave a feedback on how smart or lax an introduction it was.



The magician then revealed his bag of tricks. The first one was titled "Water of India". A small metal pot filled with water made an appearance. The water was poured out, and the pot held empty over the children. Not a drop fell. And yet, some time later there was still some water flowing from it! And this kept on happening many times over to the astonishment of everyone.



Other magical tricks included a rope that would straighten itself, but drop down as soon as a kid touched it. Two separate pieces of ropes magically gone fused into one, and despite two volunteers carefully tying up the magician on a chair, he inexplicably freed himself. A card game proved most interesting when numbered cards all turned itself into 'Joker' Cards, and no sleight of the hand was spotted.



Then the resource person went on to reveal the secrets behind the tricks. Air pressure in the pot controlled the flow of water, while magnets at the end of the rope helped them join together. A small nail embedded between two ropes allowed it to straighten or drop as one pleased, while the entire premise of freeing oneself from ropes...



Well, if all secrets were to be revealed, there would not be any magic left, would there?

Children divided themselves into groups and tried out the tricks with their volunteers, each understanding the principle behind it. As the resource person put it, the children learnt concepts related to their syllabus, gained a new skill, while having fun.

Story Telling

Session: **Story Telling**
Resource Persons: **Mrs. Sudha Arora**
Mrs. Santosh Srivastav

Ek kauwa pyaasa tha jungle jungle ghumta tha, Use mila ek ghada, Ghade mein thoda paani tha, Usne dala kankar, Paani aaya upar, Kauwe ne piya paani, Khatam hui kahani...

Different beginnings, different story tellers, some new, some old, some poetry, some prose... one entertaining session.

Children at the Tank Road Municipal School in Bhandup West sat that afternoon digging for stories among themselves. All stories they had ever heard - from grandmothers or sisters, friends or brothers, textbooks or comics - came tumbling out in the session.

As the resource person put it, a session on story-telling allows children learn the art of "listening". They come across new words, improve their vocabulary, and learn to speak clearly and articulate.



Also all stories need not have "morals" to them. Important day-to-day concepts like hygiene too can be taught through stories.

Not to forget that story telling session also jogs their creativity. The traditional story of "the thirsty crow" made its appearance in the session four times, in two different languages and in verse and in poem!



23

Session: **Health Talk**
Resource Person: **Dr. Kamaxi Bhate,**
Vidula Patil

This session discussed health issues concerning children. Conducted by Ms Vidula Patil, it dealt with the need to remain healthy and the impact of ill-health on young children. Children from standard 5th to 7th participated in the session.

On being asked about common illness among children, responses like head aches, stomach aches, and cough came up. Other responses included chicken pox, typhoid to the preposterous "chicken gunya" and "sugar"!

Ms Vidula Patil is a medical social worker and part of the team of Preventive and Social Medicine from K.E. M Hospital in Mumbai. This team works with schools all over the city, using simple games and songs to demystify health topics for children. "Since children do not have much interest in lectures, it is important to talk about these issues in a fun-filled learning environment", she said.



Diet and eating habits of children was another key issue discussed. A basic daily dietary plan was chalked out. It revealed that children consumed foods like biscuits, and pav - largely made from refined flour, and not a source of much nutrition. Simple alternatives like poha, or rotis were suggested, which were much more nutritious.

24

Nature Trail

"What is the sound of the Indian jungle in the summer?"
 "What is the difference between a palm tree and a gulmohar tree?"
 "Are eagles kites?" "Why do snakes shed their skin?"
 "Do frogs bite?" "What happens when a spider bites somebody?"
 "Could one become 'Spiderman'?"

...these were some of the questions put across by children on their early morning nature trip with their three guides within the lush IIT, Powai grounds. The area within IIT with its lakes, trees and bushes is rich with biodiversity, the perfect place to introduce children to the delights of nature within an urban setting.



The children assembled early in the morning at IIT gates and the groups slowly moved ahead, observing each plant, bird, and even beetles. Many children were quite informed about the local names for various plants and shrubs. The importance of being silent observers of nature was stressed through the walk. It was necessary to appreciate the calls of various birds, and to let them be, undisturbed in their surroundings.



However children sometimes found it difficult to contain their excitement on spotting a magpie or a water fowl all on their own!

The resource team were part of the environment organization called SPROUTS that worked with urban, rural and tribal and even corporate groups, raising awareness and need for change through small do-able steps.



25

Session: Nature Trail

Resource Persons: **Anand Pendharkar, Hemant Karkhanis**
Zeeshan Mishra & Sahas Barve



It was a delightful and information packed walk that converged at the IIT lake. Flocks of birds abounded in the lake — from kingfishers to the long necked cormorants, from purple herons, pond herons, to even the whistling teal. The group closely tried to view the birds, and tallied the real birds with photographs from books.



Zeeshan, from the resource team is an expert snake rescuer, while Sahaas is extremely quick in spotting a variety of birds. Anand, through SPROUTS has been conducting nature trails and camps for groups, for more than 12 years now. The group believes that environmental change can be brought about by small, constructive steps. Children, for example, a small pan of clean water can be kept on the roof as drinking water for birds. We can all try and not litter our environment, and at the very least, not harm grasshoppers, butterflies, or break branches as we walk close to them.



Hemant Karkhanis, who is a senior officer at Godrej took the children to the mangroves, explaining its importance, especially since this stretch of mangroves serves as a breather for Mumbai after Sanjay Gandhi National Park. Though the children did enjoy the trip, it was the aquatic life that captured their attention and made it memorable. As Vikas from the 5th standard claimed, "the fishes were the best!"

26

Fun with Maths & Rangometry

Session: Fun with Math / Rangometry
Resource Persons: Purushottam Tripathi and Soni Yadav

The objective of this session was to work on the concepts of mathematics, but in an entirely fun-filled entertaining way. Navnirmiti's indigenous math sets like the jodo, and Rangometry's foam blocks formed the tools for the session.



Children at first were quite excited at getting a range of material - from building blocks, to the jodo set. But slowly they got wrapped up in making shapes, trying to match the colours of the blocks to the structures they were making.



Soni Yadav, the resource person for this session has an interesting personal story to narrate. Her journey began as a volunteer for summer camps two years ago. That was her first experience of working with young children, by the next year, she was coordinating the processes in one school, and today is the resource person for the 'fun with math' module.

Shapes with previously unheard of names like rhombus, hexagon and decahedron were created. Names perhaps were not as important as the experience of actually creating absurdly mathematical shapes on their own.



She says that children get bored or disinterested if one starts to explain the intricacies of mathematical concepts. Instead by using these tools, they get to work on triangles, dimensions and models, without losing interest.

Purushottam Tripathi, of Navnirmiti explaining a child the tetrahedron structure made by straws and connectors.



Mask Making

Session: **Mask Making**
Resource Person: **Mukhim Tamboli**

A group of young children watched wide-eyed as a simple paper plate transformed into a funny looking mask. Mukhim Tamboli, a cartoonist by profession, has been conducting workshops with children for the past 25 years. "Simple and everyday items can be converted into interesting playthings for young children", he said



Mr Tamboli invited a volunteer to come forward and become a model for the mask. In a funny, entertaining way, he gained the attention of the children, and demonstrated the essential steps involved in creating a mask. The features of the mask could be turned into a happy or a sad one, at the twist of the scissor.

Soon the group got divided into smaller groups, each headed by a volunteer, eager to try their own hands at creating. Snip, snip went the scissors, and colored sketch pens ran riot over paper. Soon, every child was wearing their own creation, proudly displaying their handiwork. Once the child had got a hang of the process, other embellishments like hair (using plain white paper) and threads for placing it over their own face were added.



Having finished the masks making, Mr Tamboli introduced the children to the art of face-painting. Pradeep, a fifth standard student from Paspoli School, volunteered. Before their eyes, the group saw Pradeep convert into a cream complexioned girl, complete with arched eyebrows and wrapped in a borrowed red chunnil



At the NITIE camp, most of the children were from the nearby Paspoli Municipal School, Naina, Arti, Meenakshi and Vaishali were from the seventh standard and this was the first time they have attended a summer camp. Arti excitedly said that she wanted to learn dance, cycling, carom and drama from the workshop. "Kuch kuch karke sikhna hai", added Vaishali.



Music

Sports

Session: Music
Resource Person: Kiran Chakodkar



"mi jhar jhalo ek diwas raja.....!"

The entire class room of more than 80 children sang in as many voices. Some were in tune, many off key, some a few steps behind the chorus. Altogether a convincing effort in group singing! The session on music began with a talk on the most famous song – the national anthem. The resource person and children shared their information about the writer of the song, the meaning of its words and its duration in seconds. The national anthem is meant to be sung in 52 seconds, said the resource person.

Music is not just about singing. Even claps have a taal to them. The children then slowly worked on clapping together to evolve a rhythm. The same principle applied to songs. The resource person then began a line, and the children followed. Yet, each child followed on his or her own tune. What emerged was a cacophony of voices singing the same song. The resource person worked with them slowly so that all off key voices came together and render beautiful song.



Kiriti, a volunteer at the Kanjur village municipal Marathi school said the response to the summer camp has been overwhelming. More than 150 children, including school dropouts from the neighboring areas had come on the first day. And they had enjoyed the previous day's origami and magic sessions. The children were so excited about coming together and learning new things, that they came forward on their own, many reaching the venue much before time.



Session: Sports
Resource Person: Rahul Jadhav

The Municipal school is situated within in the Dockyard Colony of Kanjurmarg, among green, sylvan surroundings. There are three "medium schools" within the same building. It has Marathi, Tamil and Hindi sections, on its different floors.



When the children came in the morning to the Kanjurmarg Dockyard School, they were pleasantly surprised to know that all they had to do was play! A few children, three stumps, a bat, and a ball... a cricket match soon began at one end of the school. The girls gathered the two footballs and quickly arranged themselves into groups. Soon there began a game of throw-the-ball and their own version of football.

The children managed quite well, without much supervision or persuasion from the volunteers. The cricket match had its own "umpires" as they divided the overs, tallied the runs and made sure everyone got a chance at the crease. And if there was some misunderstanding, someone would speak out. "Tu kaisa bol sakta hai? Tu kya umpire hai?"



Many children had come from the Pathan Colony Municipal Urdu School as well. Afsana, Noorie and Rukhsar, all from the 6th standard walked all the way from Pathan Colony for the camp. However, despite the many different things they had learnt at the camp, they were most excited about the play they were practicing, and would perform in their area. Afsana had a great interest in dance, and enjoyed the little opportunities she had to present a dance before her friends.

Film Screening & Cartoon Making

Session: **Film Screening**
Coordinated by: Rajesh Natrajan

For the other group not part of the singing, a film screening was organized. Charlie Chaplin's "Modern Times" was screened on the big screen. Children laughed at the antics of the tramp, the eternal favorite character of all children irrespective of language or nationality.

The session was then facilitated by Geeta Ladi, who discussed with children their impressions of the film.



Session: **Cartoon - Making**
Resource Person: **Mukhim Tamboli**

"How many of you watch 'Cartoon Network'," asked Mr Tamboli. And without exception all hands went up. This broke the ice, and set the tone for the rest of the session. The resource person introduced simple shapes on the board. Circles and triangles merged the letters 'T' and 'Y' to reveal expressive cartoon faces. The children diligently tried the various shapes on their sheets of paper. Since no erasers were provided, children learnt to draw with mistakes.



33

Children Feedback

Children's feedback

The feedback from the children was overwhelmingly positive. They loved coming together and learning how to sing, dance, play and just be themselves. At the end of each entertaining day, children were reluctant to go back home. And they would be the first to be at the venue the very next day. Some regretted that they could not get their friends or siblings along since they studied in private schools. "unko bhi mauka milna chahiye na?", asked Mithesh.



Others were eager to share their learnings with their siblings, friends and mothers back home. "main meri behen ko macchi bana ne ko sikhaaongi!", declared Varsha after the Origami session. Saba's aunt made the mistake of coming to school one day, to take her back early. Saba was in the middle of the puppetry session. She literally shooed her poor aunt away and ran back to her puppets.

During the street plays one could see the obvious admiration in the faces of the audiences. There were anxious questions of "arre, tum log aur kya kya sikha?" after the performance. Children from the play children shared the various subjects they had learnt through the week, much to the amazement of the community members.

Their relations with their "didi" and "sir" grew so strong that they were entirely unwilling to be separated at the end of the camp. "sir, ab hum kab milenge?", "didi, aapka phone number do na, mein bulaaongi", "didi, aapki yaad aayegi", were some statements heard not just in one school, but across all schools, as the camp drew to a close. Little Shweta who attended the sessions at Shivaji Nagar even trailed her volunteer didi, for the next leg of the camp at the Tank Road School.

It was a feeling that was reciprocated by the volunteers too. First time volunteers, whether it was Varsha from Bhandup or Bhavna from NITIE, echoed the same sentiment. They had learnt much from the children and were looking ahead to be part of the process next year too. It was their commitment that ensured the camp's success despite administrative or logistical hurdles that sometimes came their way.

For the organizing team at Navnirmiti, and the 200 plus volunteers, the two weeks of summer camp at 10 schools with 1000 children was a combination of exhilaration, tension, laughter, bonding, learning, challenge and fun – sometimes all at the same time!

As for the children, beneath all the "maja aaya" and "accha laga" statements, there was genuine happiness at the opportunity to learn and enjoy. From little squabbles with their friends to sharing the food during breakfast and lunch, to walking through the forest early in the morning, the children clearly had the time of their lives.

34

Volunteers

Volunteers : some stories, some experiences.

Shobha Gawli lives in Morarji Nagar near NITIE, and works as a daily wage earner. She is a single mother with two daughters studying in a nearby school. She had come to the pre-event meeting at IIT out of curiosity. Here she learnt about Navnirmiti and its activities with children. Sitting with the young children, helping them with their little activities, and listening to their constant chatter, Shobha said that she remembered her own childhood. She could not bring her daughters here since they went to a private school.



But she said she picked up a few skills in the workshop to pass on to them. She loved the method of teaching, where children could learn while doing things themselves. "Just as we won't know how deep the water is without stepping into it, these children will not learn if we just tell them. Doing it themselves is the best way to learn", she said.

Pradnya and Vaishali, two college students from the areas near NITIE, have been actively participating in the processes leading to the summer camp. They were part of the team responsible for identifying, registering and mobilizing children for the camp. Both of them shared their experience of talking to parents and convincing them to send their children to the camp. "Many parents would leave home early for work, leaving children alone or with neighbors," she says. They had to visit the area a number of times before the registrations could be completed. Many parents worked as domestic workers, or were daily wage earners. Some also survived by selling toddy from the nearby forested area. Parents were largely illiterate and were unable to fill forms or even provide basic information like date of birth of their child, or even the standard in which the children were studying. Many parents also sent their children because the neighbors were sending theirs, Pradnya added. Most of the children at the NITIE camp were from the tribal village of Sai Bangoda and Uttan Pada.

An event to mark the end of the 10 - day summer camp was held at IIT campus on 14th May, 2007. Children, volunteers, resource persons, and the organizing team from Navnirmiti were present during the meet. Also present were Dr. Vivek Monteiro, founder of Navnirmiti, Prof. Prakash Gopalan, Dean, Students Affairs, IIT, Mrs. Achala Nandedkar, Administrative Officer, S Ward, BMC and Mr. R.N. Makhija, Member of Board, L & T. The entire 10 - day camp was much appreciated by the children, and many said that they looked forward to participating in the camp the next year as well.



Credits

Children and staff of 10 BMC Schools: Community Volunteers Navnirmiti Summer Camp Team

Schools		Coordinators	
1.	Tirandaz Village BMC School	}	Daphne D'silva & Raju Kamble
2.	NITIE Paspoli BMC School		
3.	Powai Dockyard BMC School	}	Mansoor Patel
4.	Kanjur Nehru Nagar BMC School		
5.	Bhandup village BMC School	}	Kiran Lomate & Harish Jadhav
6.	Tank Road BMC School		
7.	Tagore Nagar BMC School	}	Kishore Jadhav
8.	Kannamwar BMC School		
9.	Shivaji Nagar BMC School	}	Shekhar Sankaran & Sanjay Gupta
10.	Tulshet Pada BMC School		

Programme Co-ordinator
Rajesh Natrajan

Administration Co-ordinator
Kishore Jadhav

Administration & Support
Dr. Nandkumar Jadhav, Jyoti Francis, Rakesh Rawat, Krishna, Trupti Pate, Kantaben

Sponsors
Dhrishti, L & T, Johnson & Johnson

Special Thanks
Prof. Subhash Awle, Director NITIE, Prof. Prakash Gopalan

Process Documentation & Photography: Sajana Jayaraj

Graphic Design : Raja Francis

Printed by : Heyramb Printers

Published by: Navnirmiti, 3rd floor, Priyadarshini Apartments, Padmavati Road,
Opp. IIT Market Gate, Powai 400 078. ph: 2577 32 15, 2578 65 20
www.navnirmiti.org navnirmiti@yahoo.com