Let us dream about the school first!
Let us first imagine the school as a space for children. Imagine yourself to be a child once again.

- Imagine a tree where the branches are so low that you can horse ride on it. Imagine a tyre train or a tyre swing. Imagine a mound on which you can roll down.
- Or a window security grill which has interesting patterns to move your fingers on. Or a wall on which you can make your painting or a floor on which you can write a poem and nobody scolds you for that. Or another wall behind which you can play hide and seek, while peeping. Or a pipe through which you can talk to your friend on the other side of the wall.
- Imagine a periscope through which you can not only talk to your friend but also see her. Or a fan with seven colours that vanish when it rotates.
- Imagine a shop where you can buy or sell anything you want to, with your friends.
- A cave where you can sit quietly and see the world going by.
- Imagine a patch of blue sunlight that moves through the day in your room. Imagine a quiet corner, where you can be alone, or discuss your problems with a very close friend. Imagine a place where you can make your own game on the floor and play with a friend. Imagine a colourful garden with lot of fragrances and trees where birds make their nests Imagine a garden where the moment your friend is hurt, you know a plant that you can use as a medicine to heal.

To imagine and to dream is to make something possible. BaLA is one such dream.

Building as Learning Aid, or BaLA as it is now popularly known, is about creating such possibilities for learning in all existing as well as new school environments.

You may be wondering whether this is really possible in all kinds of schools, particularly in government schools. In fact, in several
thousand schools across the country, in Jammu & Kashmir, Himachal Pradesh, Gujarat, Madhya Pradesh, Karnataka and Delhi, the concept of BaLA has been implemented by enthusiastic school principals, teachers and civil engineers.

How has this been achieved? The respective state governments planned and approved a budget, oriented and exposed their school principals, teachers and civil engineers on the theoretical and practical understanding of BaLA with support from Vinyãs* and then made available the funds towards the implementation. The actual mechanism may be different in each state, but this is how it happened. In each of the states, the one-time budget available per school was small – ranging from Rs 15,000/- per school to Rs 40,000/- per school in most cases, except Gujarat, where for about 700 existing rural and urban schools, it was about Rs 2,50,000/- per school, or in Delhi for about 925 existing urban schools, it was Rs 2,00,000/- per school. With wide variations in location and geography, implementing this large project was a challenge. For example, in the mountains of Himachal Pradesh, there were more than 1,200 school sites spread across all districts including Lahoul Spiti, Kinnaur, Kullu, etc. A few private schools also became part of the project.

So, what is BaLA?

BaLA is about developing the school’s entire physical environment as a learning aid – the inside, the outside, the semi-open spaces – everywhere. At the core, it is about maximizing the educational value of a built space. It is based on ‘how children learn’.

Schools are specialized spaces for learning. Traditionally, school buildings were conceived to provide shelter to the activity of education. They were treated as structures of bricks and mortar, rather than as enclosures that encompass a learning environment. Often, not much attention is paid to the interface between building design and the design of the teaching and learning program – how the use of space and its constituent elements, including lighting and ventilation, can support more diverse learning activities apart from frontal teaching (for example, for small group learning, individual reading, for project work).

The fact that physical space can be a resource in the teaching-learning process has never been explored seriously. Buildings are also the most expensive physical asset of a school. By innovatively treating the school spaces (e.g. classroom, circulation spaces, outdoors, natural environment) and their constituent built elements (like the floor, wall, ceiling, door, windows, furniture, open ground) a range of learning situations and materials can be integrated such that they can actively be used as a learning resource. This resource can complement the teaching process and supplement textbook information, much beyond providing wall space for posters and decoration.

A three-dimensional space can offer a unique setting for a child to learn because it can introduce a multiple sensory experience into the otherwise uni-sensory textbook or a blackboard transacted by a disinterested teacher. It can make abstract concepts more concrete and real from the child’s perspective. Dimensions, textures, shapes, angles and movement can be used to communicate some basic concepts of language, science, mathematics and environment, to make learning a truly enjoyable and memorable experience for children.

Building as a Learning Aid (BaLA) aims to use the built elements like the floor, walls, pillars, staircases, windows, doors, ceilings, fans, trees, flowers, or even rainwater falling on the building as learning resource.

For example, a window grill can be designed to help the children practice pre-writing skills or understand fractions; a range of angles can be marked under a door shutter on the floor to explain the concept of angles; or ceiling fans can be painted with colour wheels for the children to enjoy ever-changing formations; moving shadows of a flag-pole to act like a sundial to understand different ways of measuring time; planting trees that shed their leaves in winters and are green in summers to make a comfortable outdoor learning space.

Focusing on child-friendliness

While child-friendliness seems like an attitudinal issue, it is also an issue to be addressed in the design of physical environments of schools. From the most basic provisioning of seating and chalkboards to the more complex ones like hardware, sanitary and plumbing fittings in classrooms and toilets, all need to be designed and constructed from the perspective of child friendliness. BaLA attempts to encompass a holistic view through all such details of the physical environment and make learning fun and child centric.

Essentially, BaLA is about

- Child-friendly learning environment.
- Learning by doing and experiencing.
- Involving multiple senses in the learning process.
- Allowing different children to learn at a different pace.
- Learning through peer group activities.
- Developing inclusive settings for all children.
- Allowing children to learn all the time in the school environment.

What can BaLA do?

For children, it can help in developing

1. Language and Communication skills
2. Numeracy skills
3. Abstract notions through concrete examples
4. Respect for nature and environment
5. Capability to realize potential of available resources
6. Power of observation

It has been found that fun filled, aesthetical environment relieves children of boredom and increases constructive use of time.

For the teachers, it can help in developing

1. A range of tailor-made, easy to use, accessible learning aids
2. Their space and time better
What teachers and principals say
This is what teachers and principals from various schools across the country, where BaLA has been implemented, have reported:

1. There is increase in enrolment and retention of children
2. Very often, the children come to school much before school hours and leave much after school hours
3. Learning has become more interesting for the children and the teacher
4. Abstract notions are better understood through concrete examples
5. Children and teachers have become more aware and ask more questions in schools
6. Distance between children and teachers has melted down
7. There is decrease in vandalism and negative behaviour of children in schools

A more holistic approach to develop schools has taken place with better communication between teachers and engineers.

The school/village community has reported this

1. VEC has become more excited and contributed efforts and money for BaLA intervention
2. Parents have moved children from private schools to government school under Sarva Siksha Abhiyan (SSA).

Since learning is a continuous process and happens in a continuum for a child, why do we segregate the spaces while designing? Typically, classrooms are meant for teaching-learning, corridors for movement and outside for assembly or play. But learning from a child’s perspective is not segregated – as we know, it happens everywhere. So, why not let it happen in spaces all across the school for learning? BaLA attempts to address this issue. It is about holistically conceiving the school environment while connecting the hitherto isolated components. It is not only about developing new schools, but also about how existing spaces can be transformed. In fact, its genesis lies in addressing the needs of existing government schools and how they can be transformed. Other schools too could look at similar ways of transforming their existing structures into learning environments.

How it works
This process works at two levels: first to identify and develop spaces and settings that are conducive to learning – within the classroom (like the space in the front, near the window, or the rear or the sides), in the corridor – along the main movement space, space between columns or piers, the steps or staircase, the outdoor – space between two blocks, the rear space and space under the tree, the space adjoining the boundary wall, etc.

After such spaces have been identified, one has to develop its constituent built elements – the floor, the wall, the door or window, the ceiling, the furniture, the tread or the riser, as a learning aid that can be used by children and teachers in multiple ways. As indicated earlier, the focus here is to address the children’s perspective – their behaviour, aspiration, their development and their process of learning.

How it all started
BaLA as an idea originated in Lok Jumbish in Rajasthan in 1997-98. It was in its infancy, with no name at that time. Vinyās’ interdisciplinary study and work with several experts from child development, pedagogy, environment, science and others led to a more systematic set of about 150 design ideas during 2000-2001. This we called as BaLA – Building as Learning Aid. This work was supported by UNICEF, India.

It was only in the latter part of 2004 and early 2005 that systematic dissemination of the idea started and the central as well as the state governments took keen interest in adopting the idea and taking it to planning and implementation. The Rajiv Gandhi Foundation and its then Director General and Senior Programme officer of Education were the key force in pushing us as well as the Ministry of Human Resources Department (MHRD). At the HRD ministry in Delhi, once they were clear about the concept, they were forthcoming to ask the states to take it on immediately – on their own initiative. The Ministry also supported the publication of a book on the concept that was disseminated widely in the government sector.

BaLA’s reach and through whom?
As the idea has grown, new stakeholders have joined in and taken something forward. From block level education and construction functionaries and further to school HMs, teachers and most of all children! As a result, there is ownership and the ideas keep growing. A step-back by any one stakeholder doesn’t let the idea or the concept fall flat. This is partly conscious and partly evolutionary. But we think, this is also its key strength now. Recently, in October 2009, after a workshop in West Bengal, an anonymous participant sent an SMS to us – “I think BaLA is neither yours now, yes it is neither mine even. It is perhaps OURS!” We later identified him to be a Panchayat office functionary from Bankura district.

Why innovation in BaLA is important?
Innovation became a need and is not a by-product in taking BaLA to schools.

At Vinyās, our larger agenda is to work on enriching habitats, innovatively. Education and schools is one part of that. We undertake research, architectural design, capacity building and policy work to address that larger agenda. In other projects too, the process and style of work and interaction have resulted in sometimes surprising and satisfying levels of innovation.
If BaLA has to go to such a large number of schools, there is no single entity that can design, construct and supervise, hence, the idea to do it 'centrally' is absurd. But then BaLA is about a certain quality and sensitivity of the learning environment for children. So, the best course of action is to provide a frame – the frame of essential ingredients of BaLA – within which, each stakeholder may be given some space to innovate. It, thus, can be owned by them, while ensuring that quality at their respective end does not suffer. Thus, within the 'frame' of BaLA which is about child friendliness, learning and fun-oriented, age-appropriateness, use of local resources, etc., the administrator gets the freedom to innovate the management and monitoring system that is flexible and responds to a context, the engineer gets the freedom to improvize and adapt or even develop a new idea, an artisan who is making a BaLA element with a new refined process of construction gets his or her name associated with it, a teacher or the children get the freedom to come up with a new use in the teaching-learning process or play and so on. Any such innovation also gets our support in further refining it. This allows tremendous ownership at all levels. An engineer once told us, “We make buildings worth few crores in our district, but somehow do not want to show it to anybody. But a BaLA school, whose building we may not even have made, but only improvized with a few thousands of rupees -this we want everybody to see”. This is ownership.

Each school with BaLA is different – even in terms of choice of ideas and how they are made or used. If this was not true, then that initial list of 150 BaLA ideas in 2001 would not have grown double by now! This is innovation. Each school becomes a unique place and not inferior or superior to another – only due to the innovative spirit that we try to instil in the process.

Our experience shows that there is innovation in every nook and corner in this country. BaLA just gave several stakeholders – children, teachers, HMs, education planners, engineers, administrators – a unique opportunity to practice it and share it. We are only the catalysts. We hope that this will inspire many people to understand and take up BaLA in their own schools.

**How BaLA began in Gujarat?**

In Gujarat, in January 2006, the then Secretary, Education also read that book and decided to develop ‘Dream schools’ for Gujarat, – by using BaLA ideas. He provisioned and sanctioned Rs 2.5 lakh per school for 100 schools and the SSA office also collected information from several other schools that had unspent grants and donations that could be used. Each year, the number of schools taken up in Gujarat has been steadily increasing, due to the demand generated by the communities. At present, more than 700 schools are covered, across all districts and blocks. Each school, block, district has its own unique planning and design strategy as well as implementation. There was cross sharing of experiences, innovation and continuous technical support from us. Due to the immense pressure and demand from the communities, the government here is now planning to get funds from the corporate sector to support BaLA intervention in schools.

**Himachal Pradesh**

In 2006, a young State Project Director of SSA Himachal Pradesh was already thinking about making the schools in his state colourful by painting them with bright colours when he came to know about BaLA. He discovered that with BaLA, schools in his state will not just be
colourful, but can be meaningfully colourful. In the next few weeks, his team planned and invited us to conduct a workshop in Shimla. We conducted the workshop. As a result, several districts took it on. Solan is one very good example, where the then District Project Coordinator (DPC) took a keen interest and perhaps more than 100 schools went ahead with BaLA in this district in the next few months. One school even had a BaLA park! During 2006 to 2008 he even held systematic workshops for teachers in the district and published a document that describes the spirit behind it. He also took the initiative to recognize and honour the teachers and engineers who had done some good innovative work in BaLA in his district.

New Delhi

The New Delhi Municipal Council (NDMC) was the first to approach us in Delhi in 2006. This was after our efforts to do something in Delhi had failed three times since 2002. The NDMC Chairperson and Director, Education, got all the top functionaries – from the legal, accounts, finance, education, PWD, horticulture, planning, architecture units to undergo an orientation on BaLA. This paved the way for some good work in their schools. Later, after the initial success of schools in NDMC, the Delhi government also took it up. The Secretary, Education, was very excited about it and took a keen interest in this. She asked us to develop two newly built schools in outer, rural Delhi with BaLA ideas and then also develop a manual with photographs and details for about 925 Vidyalaya Kalyan Samity (VKS) in Delhi to understand, plan and implement BaLA. About Rs 2 lakh was given to each VKS to develop the schools with BaLA ideas. A comprehensive colourful document was published which has also reached several parts of India.

In the tribal areas of Orissa

At Vinyás, we have always been fascinated by the wisdom, rich aesthetics and simplicity of the tribal cultures in our country. We never wanted BaLA ideas to manifest in the tribal areas in the same way as this would happen in an urban or any other rural context. However, most school buildings and premises in our country are almost disconnected with the nearby tribal habitat in form and function. This posed a huge challenge to us – especially, when one is working with existing schools.

We got the opportunity to work in tribal areas of Orissa (Koraput) and Gujarat (Dang and Narmada). It is somehow important to get the ethos of the tribes and their culture in the school environment to make this connection. BaLA could be a vehicle in this process. Outdoor space is central to the tribal culture.

In Koraput, we were able to get the Desari (village doctor) to develop a herbal garden with local herbs in the school premises while using the dripping water from the hand pump. The name and the use of the herb were also painted on an adjoining wall for children. The entire garden was protected with locally made bamboo fence. Use of a range of tribal bamboo swings, bamboo pipe phones were other ideas.

We also involved the tribal community to develop an amphitheatre using their wattle and daub technique of mud and bamboo in school. We got the tribal village elders to narrate the history of their village to a tribal painter who painted the history with a lot of embellishment in the school in pictorial panels. Teachers were encouraged to develop a range of riddles. We also developed a ‘dammu dukan’ as an adaptation of our idea of counter space. We trained the teachers to use these ideas with children in different ways. This was done in a few schools. This is still an unfinished work, as of now.

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*Vinyás is a Centre for Architectural Research & Design based in New Delhi. It is undertaking architectural research, design, capacity building, policy support and dissemination across the country.