BaLA | Building as Learning Aid

Building as Learning Aid (BaLA)

Introduction of BaLA

BaLA is about innovatively treating the space and the built elements to make the existing school architecture more resourceful with higher educational value in a child friendly manner.
BaLA is a way to holistically Plan and use the school Infrastructure. It incorporates the ideas of activity based learning, child friendliness and inclusive education for children with special needs (CWSN). At the core, it assumes that the architecture of school can be a resource for the teaching-learning processes.

There are two levels of this intervention:-

- Develop the SPACES to create varied teaching-learning situations.
- Develop the BUILT ELEMENTS in these spaces as teaching-learning aids.

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Plan

1. Check the present seating plan of all grades. Is it the most efficient seating plan? Can primary school sections be together and the middle school sections together?

2. If the school has double shift, cover all the facilities that are common or different for the two shifts.

3. Decide about the new seating plan of classrooms, library, CAL room, Science lab, and other spaces. For implementing BaLA ideas, it will be important to decide and fix this first.

4. With seating plan of whole school decided and the area for future expansion earmarked, go ahead to select the BaLA ideas from this guideline.

5. Plan for long term. Each year you will have Rs 2 lakhs to move on towards your long term plan in phases.

6. Some ideas may be valid for only certain grades. You may make them inside or just outside such classes in the corridors. Other ideas are such that they are useful for all grades, you may decide to put them in common spaces like corridors and outdoors.

7. Discuss the selection of ideas with subject teachers to also decide their location.

8. With each of the ideas given, its approximate cost is also indicated. Use this to see what all can you make now, and which all later (in the next phase).

9. Areas that need repair (like repair of cracks, dampness, peeling plaster, broken hardware, etc.) must be repaired first. Only then, should any BaLA idea be made there.

OPTIONS FOR SOME BaLA IDEAS

- Understanding the Physical world around us
- Understanding the Passage of Time in our Daily life
- Dealing with Numbers
- Ways of Interacting with language
- Doing and Learning
- Fun and Learning
- Making some school components inviting for children

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1. Introduction

1.a About - BaLA

- **BaLA** is an innovative concept towards qualitative improvement in education,through **developing child friendly ,Learning and fun based physical environment building** in school infrastructure.

- BaLA is a way to holistically plan and use the school infrastructure. It incorporates the ideas of activity based learning, child friendliness and inclusive education for children with special needs (CWSN). At the core, it assumes that **the architecture of school can be a resource for the teaching-learning processes.**

- This concept was originally developed by **Vinyas , Centre for Architectural Research & Design with support from UNICEF.**

1.b Intervention

There are two levels of intervention :-

1. Develop the SPACES to create varied teaching-learning situations.

Colourful shape furniture , walls and ceiling make a space vibrant and also makes the learning process of children much easier.

2. Develop the **BUILT ELEMENTS** in these spaces as teaching-learning aids.

Staircase as a built element to learn while using it.

1.C Built Elements & Spaces

The Spaces can be :-

1. Classroom
2. Corridor
3. Steps and staircase
4. Outdoor space

The Built Elements can be :-

1. Floor
2. Wall
3. Window
4. Door
5. Ceiling
6. Platform
7. Furniture

BaLA is about innovatively treating the **space and the built elements** to make the existing school architecture more resourceful with higher educational value in a child friendly manner .

2. Importance of BaLA

- Makes **the environment of school an exciting place**, allowing children to learn easily with fun.

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- Makes the school a c**hild friendly place**

- **Creates conducive self-learning situations** for children Can help creating **inclusive learning spaces** and provisions spaces for **Children With Special Needs (CWSN) .**

- Allows **Teachers to adapt them** to suit their specific needs.

- It Can be introduced in e**xisting and new school .**

- Allows learning materials **accessible to children**, at all times .

- ItCan be **combined with building repairs** and **up-gradation.**

3. Spatial setting for BaLA Design Ideas

Existing and Proposed, Informal Settings for Learning

Existing settings

1. Circulation Corridor Space
2. Outdoor Space and Natural Environment
3. Developing space between two blocks
4. Developing backyards and plinths

Proposed settings

1. Counter as a Space for Interaction
2. Space for Exploration and Discovery
3. Space for Exploring Three Dimensions
4. Activity Space to Play with Mud and Sand
5. Space for Adventure Play with Tyres

Same space converted to a place of interaction for children and teachers.

4. Design Ideas for Learning

1. Elements in **Indoor Spaces**

2. Elements in **Outdoor Spaces**

4.1 Elements in Indoor spaces :-

a) Door
b) Window
c) Floor
d) Wall
e) Ceiling
f) Staircase
g) Furniture
h) Corridor
i) Indoor play space

4.2 Elements in Outdoor spaces :-

a) Playground
b) Lawn

4.1 .a Door

Circular Opening in the form of Door & Window on the façade of the building with green roof gives the perfect ambience to learn and grow.

4.1 .b Window

Circular window brings colourful light into the space and also it makes the space vibrant and makes **the learning fun and memorable.**

4.1 .c Floor

Students can learn about **angle through Door opening by using it**.

4.1 .d Wall

Creative design Ideas like hexagonal profile on wall and **hexagonal furniture increases the involvment of student to the space** and they understand the shapes very well.

4.1 .e Ceiling

Ceiling Light Provide light to the space and also as a medium to learn for the children.

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4.1 .f Staircase

Students can learn counting while using it by seeing and with live experience.

Built elements which create other option to Circulate gives a sense of freedom to children .

4.1 .g Furniture

Different shapes of furniture enhance social activity and gives options to the user to use the space in different way .

4.1 .h Corridor

Colourful framed window and door makes the corridor space merge with the indoor space of classrooms which makes it easier for the user to learn.

4.1 .i Indoor play space

Making spaces dynamic by making staircase and steps gives variety to the children.

4.2 .1 Playground

Staircase around trees increases the relationship of user with surrounding and children learn in a creative way.

4.2 .2 Lawn

Children learn by their senses . A visual connection with the surrounding by **having Swing (built element)in the middle influence the behaviour & makes the learning process easy** .

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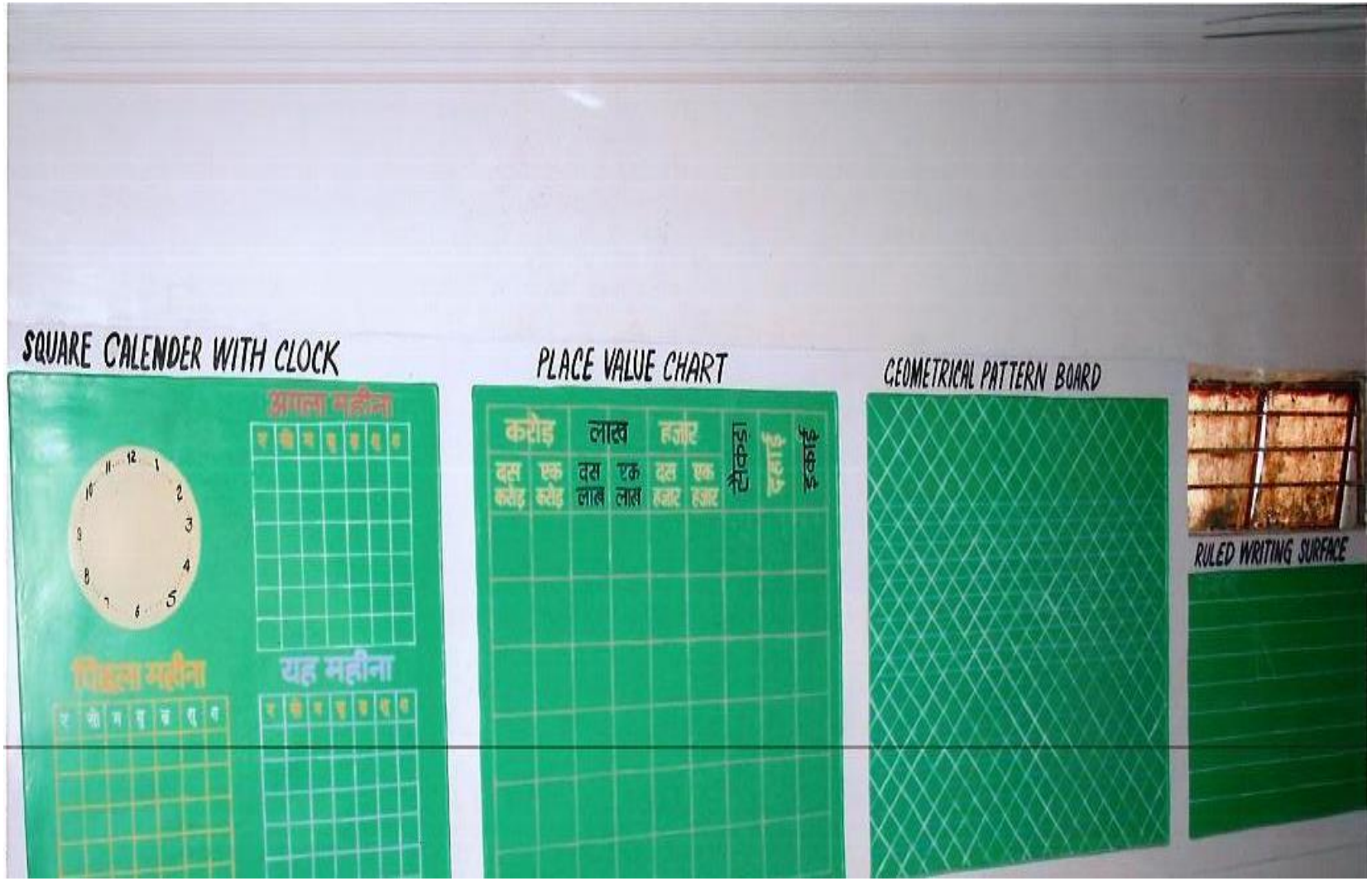

The salient features of the New School Building are

- They are all barrier free with provision of ramps.
- All classrooms have proper size with double door and verandah.
- Child friendly elements are introduced for access to schools, toilets, drinking water arrangement.
- There is provision of toilet for Handicapped.
- BaLA ideas are introduced in class room, verandahs, open space, play ground, compound.
- Building as a vibrant unit helps in learning various activities as based on the National Curriculum Framework 2005 of NCERT.
- There is a provision for Earthquake resistance and Fire Safety measures.

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A Visible Transformation through BaLA initiative in the same Classroom

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Some examples of BaLA Ideas

Scales printed on children desk with its width, height and weight will provide them an accessible yardstick to develop and comprehend the concept of measurement.

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Horizontal scales painted on along corridor lengths (e.g. between columns), or vertical scales on wall and pillars.

With vertical scales, make sure to provide writable surface for children to write their height, name or date.

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Me and my world allows the child to discover, understand and relate to the world around from her immediate surroundings to the distant world in a concrete way. It must be located in corridors, or large staircase landing. But proper natural light must be ensured on it and height that is accessible for children. In addition to the complete visuals from neighborhood, city, country, continent and the world in one concentric set of visuals, another visual can be made with some blank portion and writable surface so that children also make their own visuals, as shown above.

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These wall clocks are to be made in classrooms. The dial is painted white with markings in black and red as shown. Provide a darker colour writable surface around (shown in dark yellow here, it can be black or dark green also) for children and teachers to write events related to time for better understanding. The clock hands are in metal flats and fixed using a good quality rowel plug. The hands must not be sharp or pointed for child safety.

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Depending upon the space available in the classroom, these calendars can be made square or linear. The calanders are painted with blank grid and children are supposed to perform their activities as shown here. The square calander has also have a clock. The border around the calendar can be used to depict seasons.

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Tangram shapes can be painted on walls and large pillars, especially in the corridors. Whole range of shapes that can be made with Tangram can be painted. Remember to make a square without divisions, one with seven Tangram shapes with numbers on it and one of the shapes for children to understand that it has been made with these geometrical shapes. The complexity of its use can be decided by the teachers from identification of simple shapes to determining area of whole shapes and that of its parts. It will be useful to provide a small cubby hole to keep dusterand chalk near a Tangram shape board.

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Number lines are interesting ways to understand numbers in different ways. As stepping stones, children just love to jump on them. This can be used understand counting, ascending or descending numbers, even or odd numbers, etc. As stepping stones, they must ideally be engraved and painted with road paint for longer life. On steps, they can be painted on the treads in different ways.

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Kolam design from Southern India are interesting ways to relate geometry, mathematiccs and creativity. While some Kolam patterns can be painted, others can be made by the children on the dot boards. Some Kolam design can be made near the Dot boards for children to perform self-directed activities.

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This is geometrical shape image of a man. These can be integrated while making new window security grills.

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These geometrical shapes painted on different chalkboards in different locations can be used to either draw shapes around them by adding figures in and around them. They can also be used to write a poem about that shape which is drawn. It allows children observe inward and outward from a given shape and explore or create new ideas with a given form.

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These are dots painted (and if possible, slightly engraved) on chalkboard surfaces. These must be made along with the main chalk board in each classroom for use by teachers and smaller version to be used by children within the classroom. These are useful for all grades.

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This is another way to trace maps, and shapes from the window glass pane. An art/drawing teacher will have to first identify which shapes need to be duplicated most by children. Then these can be made using permanent ink marker on the window. The shapes should be made on that face that children will not touch (e.g the outer face if the window glass tracing has

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Pin-up boards are important display surfaces for children to communicate in different ways exhibit creativity, share their thoughts, see other's work, feel inspired and so on. The high-density foam rubber sheets are glued to a wall surface with rubber solution and a writable border made on all sides.

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Ruled writable surfaces are especially useful for children who are learning to write a new language. Depending upon its usage for English or Hindi, the ruled lines can be painted on existing chalkboards or on new boards. Care should be taken to make some boards that are at a child friendly height. The teachers can decide the height of rules. The pattern and colour of ruled lines must be same as that in the notebooks to avoid any confusion.

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The pre-painted 'thumb-prints' on this board allow the children to make their own creative shapes and form in several different ways. They can even do this in their notebooks later.

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Stapu frames are generally for children to play by hopping on squares in their own different ways. While Stapu frames are rectangular in nature, the Goltara has three concentric circles subdivided radially into 10 parts as shown. A guide to use this for mathematics or language activities can be painted on a nearby wall. These are to be painted with road paint on the floor. For longer life, ideal would be to engrave the shape also.

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Various colourful discs can be painted on the central circular portion of the ceiling fans. For smaller grades these can graduate from Primary colours, secondary colours, VIBGYOR to more complex forms as shown here.

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These metal window security grills or raining can be made at the time of new construction. The shapes have been worked out to prepare the gross and fine motor movement of the shoulder, elbow and wrist to prepare for writing various alphabets. Modification in existing grill needs to be done only upto the child accessible heights.

5. Conclusion :-

BaLA will be a great intervention in building for children as it easier for children to learn and teachers to communicate easily .
Following are the benfits and result of having BaLA in any school :-

1. Learning in school is now more interesting, joyful for children and teachers.

2. Maximising educational value of built structure. Built structure of the school has a dual use:-

   a. To give shelter to the educational activities.

   b. To be a resource for teaching-learning.

3. School administrators and teachers are being oriented and trained towards effective use of available resources .

4. Children will come before school hours and go back much after school hours as they are getting chance to play and learn.

5. A team work of school administrators, teachers, children, architects, educationists and construction workers is essential .So it bring multiple fields together.