

Designing An Active Classroom

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The Rationale for an Active Classroom

Just as kitchens are designed for cooking and sitting rooms are designed for chatting, watching TV and other social activities, it is important to design a classroom for learning. If your kitchen has only a gas, a tap, and some dishes what "creativity" would come out of that kitchen? Nothing. If a kitchen has only flour, how many dishes could you make? Plain chapattis. If the kitchen has flour, salt and oil what could you make? Chapatti's, paranthas, puris and numkeen. That's all.

Would you be happy to have a kitchen that has only flour, salt and oil in it? No. You would also want vegetables, cumin seed, coriander, lentils, and sugar So you see that the more ingredients one has in the kitchen, the greater the variety of dishes that will be served.

Would you as a teacher be happy with a classroom that has only a blackboard, some chalk and a duster? How much learning would happen in such a classroom?

A classroom must also be a space where learning takes place. Young children rarely learn when the teacher lectures. Learning happens when children experience the world around them and then express their observations, feelings and understanding through fantasy, many discussions, drawing, writing, reading books, making books, crafts and games. Creativity and learning will happen when the teacher has areas and activities in the class. If there no room in the classroom, you will probably have room in the verandha. Or you can remove desks and have children use the areas while you work with others. Where there is just no room, store all your materials in shoe boxes or shelves and let children pick up art materials, puzzles, board games or books and return to their desk.

Is this Education?

You may want to know what education is happening when children are playing with sand...or clayor board games. Think about it: it satisfies the inner need for children to be active physically, mentally and socially. (If you do not give time for activities, children will take the time whether you like it or not. Children are always opening and closing their bags, opening and closing pencil boxes, sharpening pencils, checking their tiffens, or going to the toilet . If formal teaching time is lessened, children will pay attention to you because they know that you will soon allow them to be more "active" . When children spend time discussing their plans and then implementing them, they are learning to become independent, confident, observant and creative. They are learning to work with others, they learn about properties of materials, they learn to be responsible and return materials to the proper place. They know it is important to gather more materials and replenish supplies. They observe attitudes and feelings and learn from other children. Children must be given TIME to do activities again and again to refine their understanding and creativity.

Children must play to be healthy and happy. As a teacher you can help them play and still achieve your educational objectives. Telling stories and reading books are extremely satisfying. Children who can read improve their skills when they read to other children. Children start to enjoy books when they have a choice of stories and poems, that they can freely pick up and read between formal lessons.

Management of your classroom

Setting up a learning classroom takes effort certainly but managing it and maintaining it can be difficult. Once it becomes a part of your daily routine, you will be a happy teacher with very happy and creative children BUT getting there can be stressful.

If you are able to have a variety of activities, and you maintain the activities *on a daily basis*, you will find that teaching becomes easier. You will be able to take children in smaller groups and work with them. All children need a special time with you. Some children need greater challenges, some children need more help in number work and others need special attention in language. This can only happen when the rest of the class is involved in other work.

If you set up activities one day and then again 2 weeks later, you will have a hard time managing. In fact it will be so chaotic that you will give up the idea of a learning classroom.

If you set up just a clay area, you will have 30 or 40 children pushing and shouting for clay. Or if you have only a library of 15 books, what will the other children do? So if you have 40 children you need to have just as many activities. A sand tray can accommodate 4 children, the clay area will keep 7 children happy, drawing and painting can accommodate 5 to 10 children, 4 children will be playing house, and two will be playing doctor with the old phone and stethoscope, 2 children can do cutting and pasting, 4 children will be looking at books, 5 children will be making patterns with the used reels, with seeds, and old ice cream sticks. Two children will be taking apart an old iron or a clock or broken switches. Four or 5 children will be doing puzzles and using the aids which you have made.

If you are the only teacher for your class, activities can happen throughout the day. If you have a large class of 30 or more, let one half of the class start their activities, while you work with the other 15 children.

As you personally check the work of the 15 children who are waiting, let each child move to activities once her copy is checked. This is much better than making children sit and sit or having a whole group start activities at one time. Then the next day the other 15 children can start activities, while you go from desk to desk. It takes two or three weeks for children to get used to the idea that clay, sand, colour, paper etc will always be available. Then the rush to grab crayons or books will be over and they know they have plenty of time to sit quietly with the clay, if not today, then tomorrow.

You must be very strict about putting things back in place. Labels and pictures for each thing can be put up. The first four or five weeks are hectic. After that children fall into a routine and learn to focus and concentrate on their chosen activities. Children are happy to feel that they are in charge of their life in small ways.

So the rule is:

Use the learning centers everyday

What are these centers?

The blackboard area

The library area

The art area

The science area

Clay and sand area

Fantasy area

Shelves or boxes for collections of loose materials

Manipulatives with aids for sorting, serration, counting, puzzles, games, beads

1. Craft materials, math and science materials must be on the shelf and used everyday.
- 2 Library books must be used everyday.
- 3 Sand and moist clay must be available everyday
4. Remind children everyday of the loose materials which they can bring. Get parents to help you with a steady supply of materials.
5. As you shop, as you walk. as you meet your neighbours, or the kabariwalla, always be on the lookout for loose materials.

Designing an Active Classroom

I talked about management of an active classroom before I talked about the actual design. Why? If you are prepared for the initial stress of managing an active classroom then setting it up requires effort but no stress.

The basic classroom

Most classrooms have a blackboard, duster and chalk, desks and benches. Some have charts hung high on the wall, unusable, old and dusty.

If the teacher is fortunate, she may have an almirah or a few open shelves. A verandah is very useful for clay, sand trays and the walls can be used for painting.

Blackboard Area

You have a blackboard. Can you use it in many ways?

Your basic resource material must be nearby. These are:

- 1 a calendar
- 2 a weather chart,
3. alphabet charts in Hindi and English
4. a chart of the numbers to 10 with printed names
5. a chart of numbers 10, 20, 30 with the printed names
5. a chart of days of the week
- 6 a chart for months of the year
7. a map of India
8. a map of the world.

It would be nice if these charts could all be hung just beside the blackboard, available for immediate use whenever the teacher needs to point something out. Usually there is not enough room, so you need some good strong hooks close by the board. Charts can be hung on these hooks and you can just pick them up as you need them. If they are hung haphazardly all around the room, these charts will be out of your reach and it will take precious time to weave your way through desks, return to the front, show them and then return the chart to its proper hook.

Sadly many classrooms have a few charts that are hung, dusty and unused, for years. If teacher uses the charts to point out alphabets , places on the map, months etc. children will also use these charts as references.

Some classrooms have blackboards that are hung much too high . If you cannot reach the top of the board, use that space to put up numbers, or alphabets. Write very neatly, leave plenty of space between each alphabet, and ask the cleaning staff not to rub it off.

If you have a nice large blackboard, you can have lines painted on it. Two lines for English in red and blue similar to copy books, lines for Hindi and squares for numbers. This makes it much easier to demonstrate place value, simple graphs, and the kind of writing you expect from your students. You may have noticed that it sometimes takes years for children to understand where the letters are placed; so point out the position of letters on the lines. (See diagram.)

The blackboard must have a ledge to keep the duster and chalk. It is also a handy place to put charts, pointer, scale and story books and puppets. Heavy charts can be propped up on this ledge. The teacher should never have to leave the room to get supplies.

(see diagram)

Above the black board you will need 3 hooks on which you can hang charts. Many schools now have a wire or string strung along the top of the blackboard. When the teacher records the children's discussions, she can hang paper on to the wire with clothes pins, and write easily in front of the children. After the writing and reading is over ,this chart must then be hung on another string at the children's eyelevel, so children can read it in their leisure.

It is very helpful to have a second blackboard with a grid on it. Grids have immense potential for graphing, number patterns, making multiplication tables and all the uses of the hundreds board. It helps children to keep numbers in proper order as they add, subtract, divide and multiply. It is common to see children make mistakes because they have not entered a number in the correct column.(Place value concept)

Another blackboard hung lower for the children to use, is a desired addition. If that is not possible, use a classroom or a verandah wall, paint it with geyroo or yellow Mud (Name?) The children will make their own 'kamete' for drawing and painting on the walls.

Library

School libraries are generally not used in the spirit intended. One period a week , children go to the library, sit quietly , page through a few magazines, chat with friends and the bell soon goes. Many libraries are full of only sample texts. It is rare to find good stories, especially for young children. If you have a school librarian, she can be requested to tell stories.

If you as teacher take your children to the library, you can tell stories and help children know about the world of books.

However, you must also have your own classroom library . As soon as children are free from class work, they can pick up a book and take it to their seat. If there is room, they can sit on the floor in the library area. (see picture)

Poems and short stories can be written on the cardboard registers. Children's stories can also be written on cardboard or on used wedding cards or on old files. Children will talk to you in great detail if you make it a regular practice. As they chat you can record their conversations. (

See the samples) School generally does not provide time for detailed discussions that should happen. The activity in areas can somewhat compensate for this.

Children can make their own small books with jokes, riddles, and poems. You will also need to make many small books for the children. All these homemade books and charts of poems can be lined along one wall or placed face out on a shelf. As soon as children are free from class work, they can pick up a book and take it to their seat. If there is room, they can sit on the floor in the library area. (see picture)

Clay area

Clay is easily available everywhere. It must be kept in a bucket with a damp cloth on top. Dampen the towel every evening. Keep plastic or newspaper for the children to sit on. Keep lumps of clay everyday in the center and children will pick them up and manipulate it. To mould the clay creations nicely, keep 3 or 4 damp cloths so that the children can dampen their fingers. (See Photo)

Sand area

Children find this area very satisfying. A small bucket of water is nice to dampen the sand. Dry sand can be sifted, poured from jar to jar, while wet sand builds mountains and rivers. Give many containers for digging, holding, Loose materials like wooden blocks, sticks and leaves, cars or plastic pipes support and promote creative play.

Art

Art should be a part of all subjects. It often ends up as a period when the teacher needs to do clerical work in the classroom. "Take out art books and draw anything you want to. " Art will be creative and satisfying when materials are always available. Time must be given for experimentation. Art is a wonderful way to express emotions of joy or anger. Children learn to observe, plan and use the many materials that nature provides. It has the potential to develop the mind and imagination in many ways. Children become sensitive to the "patterns " around us.

Many stories in India are told verbally. Each child has different pictures in her mind as the teacher relates the story. You can then ask the children to draw the story. Even though the theme is the same, you will have many different drawings. It is sad to see classrooms where the teacher draws a picture and asks the children to copy it. Some teachers ask children to copy pictures from the text book. Children then soon "learn " that their own representations are not acceptable.

Parents are accustomed to buying crayons for their children . These can be put in small bowls.. Children need a variety of colours- besides crayons , it is nice to have water colours and pastels. If children bring them that is fine. Teach children to make their own colours from mahor (alta), kum kum, geyroo, ground leaves , ground flowers, ground bricks, charcoal, kamete, and even ash and earth. Avoid use of Holi colours as they are toxic. Oxides used to colour cement floors, can be used carefully. Add a little glue to the powder and mix it . Then add water. Never buy black oxide as it is lead and highly toxic.

How will you get brushes for your children? Can they make them? Many schools do not have a budget for art materials. Think about it.

Collage materials are available all around us. Twigs of trees, wool, seed pods, old magazines, katan from the tailor, stones, shells, corrugated cardboard from bulb packages, feathers. The

base for collage can be old cardboard boxes. Children do not need to glue everything to the cardboard. Show them how to use a large needle and string to tie the twig or feather down.

Sewing is another satisfying hand activity. Children can be taught to sew on buttons, stitch a hem or mend a torn seam. I taught my sons to stitch and embroider.

Cooking

You will not have a separate area for cooking but it can happen a few times each month. For example your children can all bring 3 potatoes. When you have enough, a chulha can be made and the potatoes can be boiled.

Planning for these activities can be done with the children, also the execution. Children need to experience the whole process.

Fantasy Area

Is playing dolls, or "kitchen" or "shop" appropriate for school? Yes. And you as a teacher can support it by asking children to bring old dupattas, lengas, old broken dishes, old phones, old purses, used glass frames, old sarees and other fabric scraps.

When old salwar kurtas and dupattas are worn out, parents can give them to you (one more box is needed!) Cotton cloth is used for cleaning. All the synthetic clothes can be used to make dolls, for educational aids and for puppets.

Children must play. Fantasy play with props enriches and enlivens play. Much of school life is impersonal and objective. Fantasy play is like drama that makes use of the child's own language, experiences and interests. As teachers it is necessary to give importance to the children's ability to interact, to plan, and implement a "drama". The "process" is more important than the finished product. Experimentation is to be encouraged. Language, imagination and creativity grow in real situations.

Your role is to keep adding materials to the fantasy area and be encouraging.

The windows

If the windows have grills, you can also use the iron bars as a line to hang the children's drawings. The bars are also used to string a plastic line or a cotton string from one window to the next. The plastic lines should be low enough that children can manage and change their own displays. It is common for teachers to paste children's work so high that they cannot be admired or read by anyone.

Displays

The shelves of windows are sometimes wide enough to keep a collection of objects that children love to touch. You will have to start the collection, but children will soon bring in hundreds of objects if they know that you are interested and like to talk about their discoveries. Children can touch these things, break them, examine them without any fear of spoiling anything. Usually found objects include stones, feathers, all sorts of seeds and seedpods, bones, mollusks and many kinds of shells, motor parts, nuts and bolts. You can have special displays: different kinds of stones or seed pods or nails. A project on the many kinds of hair decorations creates great excitement. Children will bring hair bands, all kinds of clips, clutches, rubber bands, ribbons. Sometimes you can collect empty bottles of hair oil.

The teacher as collector

By now you realize that a teacher must be a collector.

You will not be able to collect everything that you need in your room. Parents and children must be involved. Old register covers and many types of cardboard can be used to make books or write poems on. Old calendars are especially good for making charts. Children will bring all kinds of wrappers - biscuits, toffee, salt wrappers, tea wrappers, soap wrappers, tooth paste tubes and wrappers. You will need a big cardboard box and you will need to remind children from time to time. But these wrappers must be used for math and for reading or for a shop, Children need to understand how you use these wrappers, otherwise they will not be motivated to collect for their school. Many parents, children and teachers do not have a sense of ownership regarding their school. The 'government gives orders". Children are treated as puppets and parents are looked down upon. Activities like the above help everyone understand the purpose of learning and participatory democracy.

Many teachers feel that the effort of involving parents is a "headache."

If you feel this way, then you need to look for another profession. I have found parents to be exceptionally co-operative and helpful. When they come to pick up their children just take them into the classroom and show them how you teach using the various aids that you have collected. You will soon have more things than you need. Some of the aids become old and torn. These can be sold to the kabari walla and you can buy paint to paint scales on a blackboard, paint graphs, buy some vessels for cooking projects and so on.

Collections required are:

Containers

Vaseline containers for beads, buttons, Sweet boxes , old tiffens,old dishes. Shoe polish boxes and many kinds of containers are needed for your paints, brushes, needles, thread etc.

String

Children will collect many kinds of string for you. Strings are useful for collage, for measuring, for hanging mobiles, for making puppets, for embroidery for packing and so on.If parents send bits of wool, it can be used for collage or for hair on puppets.

Loose Materials

What materials are available in your area? Clay is everywhere, sand also. Kamete, gayroo, coal, string, cardboard, newspaper, glue from flour (lai) used reels & Katran from the tailors, old cigarette, packages from the pan walla, straw, grasses, leaves, seed pads & seeds are freely available. Cotton, brick powder ,glue from mango,] match boxes, imli seeds, straw, seeds, sindoor, bangles, jute bags, egg shells, egg trays, onion peelings. You will soon learn that most waste things are in fact treasures. Plastic containers like oil and Harpic can be cut in half to dig in sand

Shoebboxes

are good places to store collections.

You need at least 20 shoebboxes that can be arranged along the wall on the floor. Children can learn papier-mâché and strengthen these boxes by adding strips of newspaper with "lai". These strengthened boxes can be made in the summer when they dry easily.

What can be stored in these shoebboxes? A classroom needs many materials and tools. Objects for counting would be imli seeds, sita phul and chikoo seeds. Children will bring you many seeds from the seed pods of trees.

You will need a shoe box for katran from the tailor. He will also give you all his empty thread reels. The panwalla will give you empty cigarette boxes. The cardboard can be used for cards for math or for words or for small pictures. The silver paper is nice to make little balls for counting, or for collage.

One box is for rubber bands, another for ice cream sticks, another for empty photo containers. The local photographer will give you the reels that are inside the negatives. Your classroom needs all kinds of papers for drawing, collage, charts. Old magazines are always useful. Many people and offices will give papers that have been typed on one side. Used wedding and greeting cards have innumerable uses. Children love to make little riddle and poem books by adding a few sheets of paper.

One box must be for needle and threads.

Tools

A learning classroom always needs tools. Hopefully you have some shelves to put them on. Useful tools are paper punch, scissors, scales, paper clips, stapler, cobblers tools, hammer and screw driver. Clothes pins are very nice to have . You will need them when you want to hang up charts, drawings etc.

A grinding stone is extremely handy and not very costly. It will be used for cooking projects, for grinding lumps of glue, for grinding leaves and flowers when you want colours and so on.

For your math and science center, you will need scales, measuring tape, magnifying glass, besides many loose materials such as stones, sticks, leaves, shells etc, for counting or to make patterns,

Disposables

Glue needs to be freely available. If the school provides it that is nice. Not all schools have the resources or the willingness to provide glue. Then you can make a little lai and keep it in a bowl. If the weather is cool , it will keep for 2 days. Sometimes children will also make lai and bring it. For variety, you can add a few drops of colour to the lai and use it to paint designs and pictures. A nice project is glue-making. A school that I know asked all children to purchase 25 grams of Arabic glue. When all children have brought the glue, you will need to have it ground to smaller particles , since it comes in lumps. Soak it for two days in warm water. Stir it. All children were given some glue in jars which they had brought. A lot was also given to each classroom.

Cello tape needs to be kept safely , as you will use it sparingly. Straight pins and needles can be brought by the children.

Finally.....

With effort and imagination, one can make the classroom a lively and useful place for learning. When parents realize that children are learning a lot in your class they will give their wholehearted co-operation. Children too will feel that the class is their place and will keep it organized and neat.

(Original, Unedited version)