

## Teaching and Learning with Collections from the Surroundings

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### Abstract

*Activities and games with collections encourage children to think, explore and create and also build a basis for important skills for later learning. Our children are surrounded with a world where they can explore and discover objects which will help them in scientific inquiry. This would be possible only when we allow our children to explore, investigate, understand and learn about their immediate world. Collections help children in scientific inquiry and information. These can be very helpful where children can use and develop other important skills such as matching, sorting, exploring as well as they learn to work with one another.*

How well I remember my field visit to a school and teaching third grade students. I used to teach environmental studies (EVS) to my students through lots of activities and games. I found that they were hardly taught through activities and games and whenever they were given activities using any material, they were very much engaged and involved. Otherwise they would not find the class interesting, they used to fight with each other. Many children were found throwing temper tantrums. Four or five of them were always out of their seats. Four to five children were always there asking permission to go to washroom. But the moment

I used to enter in a classroom, they used to wish me in a cheerful voice and immediately question, “Madam, what are you going to do today?” (“*Ma’m, aaj kya karaaoge?*”)

I never faced the classroom chaos. As I knew the trick to handle them. They wanted to talk to me for few minutes, a small activity before I could actually begin my lesson. And then they used to sit quietly, listen to me and then ask me several questions. My pre-lesson activities were mostly related to the lesson and my students were smart and clever enough to understand that. I used to bring no-cost materials and collections from the nature to make their lessons lively and

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interesting. Few of my students asked me one day, “Mam, do you do these games before starting the lessons to make our learning joyful?” ; “*Aap hume maje bhi kaarete ho aur padha bhi dete ho*”. I was so contented that day. These simple activities with collections had caused this major transformation. Although these materials are low or no-cost and from nature but children were so happy and curious to look at, touch and do the activities in the classroom. It was the use of no-cost collections from nature!

### **Collections in the Classroom**

On one particular day, I took my students outdoors in the school ground and encouraged them to look around and observe different types of leaves. I was amazed to see that the students used to come out during their recess and observe leaves. I also gave them magnifying glass and divided them in groups so that each student can get the experience. We had a small bag in which we collected one sample leaf of each type. After that we sat on a ground and did our ‘circle time activity’, i.e. discussion on different types of leaves. Each child participated and then we played a famous game on plants: “*Ek budiya ne tha boya dana*”. Children were so excited and they kept on asking, “*Mam kal bhi bahar layoge?*”; “*Kal kis par baat cheet karenge?*”

During the discussion with children, we discussed about the difference between different types

of leaves—their smell, texture, size, shape, colour, edible or not. Children learned new vocabulary such as rough-smooth. They also learnt about some uses of leaves and plants. After discussion in circle time, I gave each child a chance to ask questions related to leaves and plants. Then they themselves started talking about their favourite green vegetables and the reasons for being the favourite vegetable. After coming back to the classroom, they did ‘leaf printing’ in their notebooks and wrote few lines underneath.

I randomly divided the group into smaller group of three to five children. In their groups, I asked them to discuss and interact with each other and to reach a joint decision about what they would like to collect as a group in the coming weeks (in and around home and school). There was so much curiosity in children that reaching to group consensus was pretty hard.

These eight-year-olds needed guidelines on how to make a decision. Few children were dominating in the group and I needed to intervene wherever required but I never stood on their heads. They used to call me whenever they would feel like otherwise most of them said, “Mam, we will do it ourselves”, (“*Hum aapne aap sochenge*”). For example, I expected that it was not fair to buy something for collectibles and we are not supposed to collect expensive items. I also suggested them that if any group could come to common decision on what

to collect, then they are supposed to simply make a list of whatever items the children in the group suggested and do voting. Then I also wrote a few possible collectibles on the chalkboard to help children generating their own ideas:

- Stamps
- Magazines
- Kinds of paper
- Flowers
- Types of fabric pieces
- Stuffed toy animals
- Pictures of insects
- Corks



Because they did few activities with collections so by this point the children seemed to have a good concept of a collection. Then they came out with so many ideas on collections of items like:

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|-----------------|--------------|
| • Straws        | • Photos     |
| • Rolls         | • Seeds      |
| • Funnels       | • Lids       |
| • Feathers      | • Balls      |
| • Thread rolls  | • Magnets    |
| • Bottle caps   | • Pictures   |
| • Stickers      | • Buttons    |
| • Rocks/pebbles | • Pine cones |
| • Insects       | • Shells     |
| • Hairpins      | • Coins      |

Children left that day knowing what they were going to collect. Everyday children used to talk and share about their own collections with each other and over the next two weeks, the

children's collections steadily grew. I provided each group two big shoe boxes to store their collections and asked them to label the box. Children were very eager to know about what other groups were collecting and used

to ask about each other's items. You can also provide clear containers to store the different collections. Always label the containers. You may use egg cartons, ice cube tray for sorting different objects.

At the end of the two weeks, each group was excited to know what we are going to do next? I asked each group to select their leader who will give five minute oral presentation about its overall collection, and requested all the group members to contribute and share with the leader before s/he speaks. The classroom atmosphere was so exciting as each group was anxiously waiting for its turn. Everyone was listening to other groups preparation seriously. So we can say here that meaningful activities always help in self-discipline. So here children learned not only by collecting items themselves, but through the collections of others as well. They

knew now that a collection is more than just a matter of finding and collecting many similar objects. They now knew that by collecting something one can become a mini-expert on those objects.

I could overhear children voices calling out!

- Look, what I have found!
- See, what I have brought!
- See, what I can do with this!
- Let's play with this!
- See, in what different ways I can use this!

I encouraged and stimulated their thinking by asking open-ended questions:

- What will happen if there are no worms and insects?
- What makes you think so?
- What you are going to do with this.....?
- How does this.....?

The good thing about open-ended questions on the collections was that they initiate conversations about ideas even with quiet children.

### **More ways to Use Collections**

- Take 'Nature or Discovery Walks' in and around the school. Ask children to observe and explore carefully as they walk.
- **Make a visiting collector**  
Select one child as a visiting collector and let her/him visit another section of the same class and talk about his/her collections.

You can also team up two children as 'visiting collectors'. Visit can be planned for each month for different classes.

- **Brainstorm on similarities and differences**

Divide children into two groups. Pick up two objects from any collection and show these objects to both the groups. Give names to groups 'same' and 'different'. Encourage one group to jointly brainstorm on similarities (as many as) between the two objects. Ask other group to brainstorm on differences between the two objects of that particular collection. Let one child or you write these on the chalkboard. See which group has the longest list.

- **Classifying**

Encourage children to classify the collections such as 'buttons', 'seeds' on the basis of their size, colour, number of holes, purpose, materials and so on. Provide opportunities to your children to explore areas where they can collect varied objects safely. Encourage children to keep the items of collections on a graph. You can provide a floor graph to them. Secondly, you can also ask them to do the sorting by source or function, divide the objects and make sets, and then reclassify.

- **Visual discrimination**

Let children sit in a semi-circle or in case if the number of children is more do this in two groups.

Take any specific type of object such as 'toy animal'. Arrange six to seven toy animals in a row with one toy animal different in a row. Then encourage children of other group to observe and tell which is different and why. Keep on increasing the difficulty level.

- **Show and tell**

Let the whole class bring in a specific type of object, such as 'seeds'. Set up the seeds in separate bowl and label the bowls and keep these in front of the class. Then call each child turn-wise and let her/him describe one type of seed and ask other children to guess which one she/he described. For example, a student might begin with by saying, "I am thinking of a seed that we soak and use it to make a yummy dish". It is eaten with *bhatura*. Which seed I am thinking of?

- **Story making**

Provide six to seven objects from the collections to each group of children along with some prop. Then let each group create a story using the objects.

- **Counting with collections**

Encourage children to make different shapes/objects using, pebbles, etc. Ask them to count the number of seeds or pebbles used in each shape/object.

- **Activities for Emerging Literacy**

Provide many opportunities to children to write and draw about

their collections, e.g., after their walk ask them to pick any object from what they have collected and draw that in their note book or on paper and then write few sentence underneath that drawing.

- **My Collection book:** Let children create 'my collection book' that includes their favourite objects.

- Brainstorm specific items within a given category. For example, after the teacher says the word 'seed'; 'leaf', the children can brainstorm all the seeds/leaves they can remember.

- **Mystery bag:** Bring some collections in the 'Mystery Bag' and say, "I have some objects in my mystery bag and now I am going to unpack my bag. You can also give clues for the objects. Then let children talk about the objects in the bag.

- **Collect picture cards of things:** Representative of various seasons, e.g. clothing, flowers, vegetables, fruits in various seasons, jobs, and so on. Ask children to sort and group them by season.

- During the topic collect plant pictures and paste them on cards. Let the children sort the plant into categories, e.g. plants that we eat and plants that we do not eat; plants that grow above the ground/plants that grow under the ground.

- Collect different types of leaves and make comparisons. Sort them,

paste them and label those of the same variety. Write few lines for each.

- Collect pictures of foods that come from plants.
- Collect variety of seeds. Discuss in groups the ways seeds are carried from place to place. Paste and label each seed. Make collage with seeds (do not use edible seeds for collage work).
- Provide fruit/egg carton and let children sort seeds in a carton.
- Provide identical labelled seed packets and let children match the seeds to the appropriate seed packet.



- **Feather collection:**  
Let children do—
  - Feather painting
  - Feather collages
  - Make bird puppet using feathers
  - Think on your own!
- Make surprise boxes by covering these boxes. Let children guess

what might be inside. Unwrap the box and take out one object at a time and then let children describe the object or objects and how they can be used.

- You can also create boxes of collections/materials used by specific professions, e.g. one box might be a ‘teacher’s box-with pen, pencil, scale, globe, book, chalk, etc.’ Other boxes could be for mail-carrier, doctor, traffic policeman, etc.
- **Different collections:** Sort coloured items—buttons, marbles, pieces of fabric. Provide an egg carton and let children do colour sorting.

- **Floating-sinking:**

Let children collect number of different objects. Let them predict which objects will sink and which will float.

- **Heavy-light:** Let children examine objects and decide by observation which ones are heavier. And then

let them pick up objects or weigh them and find out if the predictions are correct.

- Matching of objects of sets to teach one-to-one correspondence may also be done.
- With objects from two collections, children can line up two sets of objects and then match a member

of one set with a member of the other, even before they can count.

- Children could group all the red objects in red labelled box, all the yellow in a yellow labelled box and so on.
- In addition to counting objects, a range of collections may be used for putting objects in order, i.e. biggest to smallest; heaviest to lightest; thickest to thinnest and so on.
- Similarly, for beginning addition and subtraction problems, collected objects can be utilised. You can provide opportunities to actually 'take away' objects from a large group and see how many are left.
- **Pattern making:** copying the pattern and completing the pattern with their own collections can help

children understand the concept of order.

### **Benefits of using collections during early years—my beliefs through experiences**

- It enhances the early year's curriculum.
- Children develop vocabulary skills and questioning skills.
- Show and tell activities encourage children to enhance their oral presentation skills.
- As they take pride in their collections, they feel more confident.
- Children start respecting each other's work, e.g. they see that their peer work do not get spoiled/torn/damaged. They are very careful when handling other children's collection or work.
- Children develop a lifelong good hobby!!