

**Module 1.2**



**UNDERSTANDING LEARNER**

## UNDERSTANDING LEARNER

### 2. Objectives:

This module is designed to help you to: understand different types of learners

- Understand different classroom contexts and their relative advantages
- Comprehend the concept of constructivism and constructivist classroom practices
- Create child friendly classroom environment

### 3. Introduction

Every child is unique and children adopt different learning styles as per their abilities and interests. Every teacher is thus responsible for dealing with many differences among learners. These differences could be because:

- Children coming from homes where parents have no educational exposure.
- Children studying in residential and special schools.
- Children with no earlier exposure to pre-school education.
- Children of seasonal migrant parents.
- Children living in Juvenile homes.
- Children with behavioural and emotional difficulties.
- Children who have been ill for a long time.
- Children whose parents are HIV positive or having other medical problems.
- Children whose parents are not alive.
- Orphans.
- Children belonging to different religious, ethnic and minority groups.
- Children whose home language is different from the school language.
- Children who may not be able to see, hear, understand or have other problems.

Normally we tend to think that some or all the above mentioned situations lead to learning problems. However, these children may be at risk of negative and meaningless school experiences if teachers are not responsive to their needs and abilities. To enhance the participation of all children and cater to their needs it is important for a teacher to be aware of the socio-cultural and the physical health of each child. In addition, he/she also needs to understand that non academic factors also influence their learning to a certain extent. Many social factors that affect learning cannot be immediately changed. However, understanding these factors will help teachers to see why learners sometimes do not perform as expected or misbehave in class.

While interacting and dealing with children it is important to understand and appreciate the differences among them and also respect the fact that they will understand and respond in

different ways while learning. Let us now reflect on how we can help and promote children's learning.

### **1.1. Children will learn better if:**

- Their “new learning” is based on their “previous learning”. Children come to school not as “empty slates” but with a lot of experiences already with them.
- Learning is not limited to the time spent within the four walls of the school. It is a continuous process and therefore, classroom learning needs to be related to the child's home environment and daily life experiences.
- Knowledge is not doled out by the teacher rather children construct their own knowledge. Therefore, each child may interpret any given information in her/his own way based on the previous knowledge base and arrive at her/his own conclusions and understanding .
- More than one sense is involved in the teaching learning processes. Opportunities for sensory stimulation (smell, touch, taste, hearing and seeing) need to be provided through a wide range and variety of experiences.
- Opportunities are provided to interact with other children and, therefore, cooperative learning should be encouraged through group work, peer learning, etc.
- They are allowed to learn at their own pace. Flexibility is, therefore, very important in providing learning time as well as in setting expectations based on each child's needs, interests and styles of learning.
- An integrated approach is provided and not segmented into fragmented knowledge.
- Given the opportunity to come back to these concepts and skills again in the later grades along with the new learning so that this learning gets consolidated. However, when revisiting concepts the degree of complexity of tasks may be increased to match the child's maturity.
- Encouragement is given and they are able to experience success. Children's efforts should also be appreciated, not only their achievements.
- Content is interesting and captivating and the teaching learning process is joyful and also allows for active participation and play.

It is also important to understand that children vary in their cognitive styles and hence differs in the way they think and reason out problems, e.g. some children by nature are more reflective, and they think deeply before giving the answer or deciding on a solution. Others are more impulsive and respond immediately. We should, thus, be prepared for every child to behave and respond differently even in a similar situation.

Children's learning proceeds from concrete to abstract, from familiar to unfamiliar and from specific to general. Children, thus, need to be given a lot of concrete experiences and examples to help them arrive at conclusions, rules and principles.

Children at the primary stage and upper primary learn through repetition. Hence, there is a need to provide for practice and drill especially for the development of certain skills. However, they do not enjoy monotonous repetition.

## **2. Different Classroom Contexts**

Teaching-learning in the classroom depends to a large extent on the school environment and ethos. A safe, secure and happy school environment can help children learn better. For this, it is necessary that the school makes available necessary facilities such as learning materials, aids, equipment and space for doing activities, working together and playing. Children's learning in elementary classes can be promoted much more through child-centered approach rather than teacher-centred.

Let us look into two classrooms – one that is teacher-centered and the other is child-centered so that the terms used becomes clearer.

### **2.1. Classroom A**

In class III, forty children are sitting on wooden benches behind desks with their exercise books open and pencils in their hands. The teacher is standing in front of the class with an English textbook in her hand. She is reading the lesson aloud and asking all the children to repeat after her. Once the lesson is over, she asks the whole class to reread the lessons aloud. Some children are looking out of the window, a few are talking to each other and two children are making paper planes. A child with a hearing aid is looking in front with a blank face.

Two boys sitting in front want to know more about the main characters in the lesson. She ignores them saying - "I have to finish the lesson and give you questions and answers for learning." She then goes to the blackboard and writes the questions from the textbook and instructs the children to copy what she has written on the blackboard. While doing this, she repeatedly bumps the duster on the table asking the class to keep quiet and do their work. On finishing her blackboard work from time to time she calls one girl to wipe the blackboard clear, before writing the next question and answer. A few children say they have not finished taking down the questions and answers. She responds with an irritated tone and says – "I have to finish the lesson today, you can take it from one or the other children. When the school bell rings, she tells the children to learn all the answers well for the test next week.

### **2.2. Classroom B**

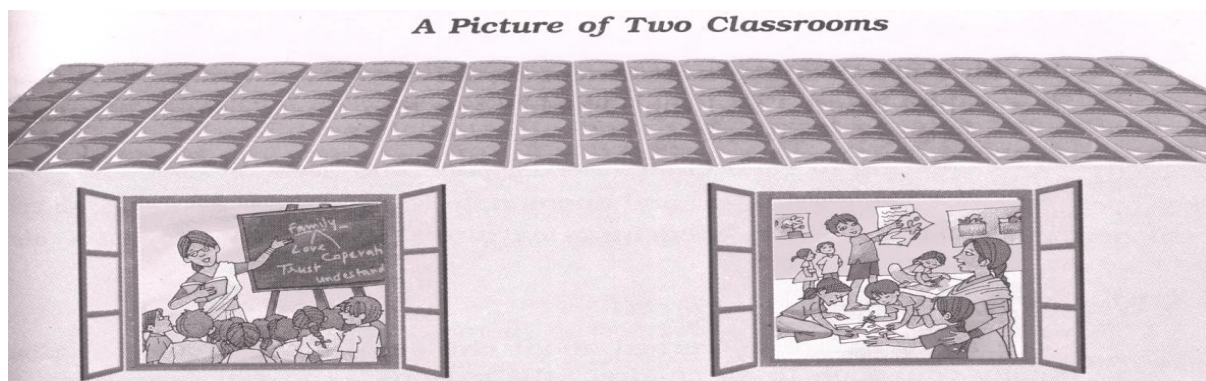
In class III, two groups of children are sitting on the floor in two circles. Both groups contain girls and boys. The teacher is talking to them about fractions and showing different parts of a circle.

The children handle the different shapes and draw them according to corresponding fraction. One child with hearing difficulties identifies the fraction of a semi-circle as  $\frac{1}{2}$ . The teacher smiles at her and says "very good", making sure that the child can see her lips as she speaks. A parent who is the local village carpenter enters with a wooden cut of circles. He distributes the wooden blocks to the two groups and then sits with one asking the children to put it together to form a circle.

The teacher follows this up with an exercise on the blackboard where she writes two fractions and asks the children to identify and add. The teacher calls each child to her table and asks the child to point out two different shapes in the material put up/lying around in the classroom. When the school bell rings she asks the two groups to put back all the materials

into the cupboard carefully and clear the place as well as put their mats in order for the next class. See Figure 1 depicting two classrooms

**A Picture of Two Classrooms**



**Teacher-centred Classroom**

- Teacher gives instructions and expects children to obey and be disciplined.
- Children listen while the teacher teaches.
- Teacher reads the textbook or writes questions and answers on the blackboard and students copy these. At times, one child reads the textbook aloud while others listen.
- Children memorise facts given in the textbook or as told by the teacher.
- Teacher controls what happens in the class. children's participation is minimal.
- Children generally learn individually.
- Timetable is fixed.
- Seating arrangement is fixed.
- Material is only for display.
- Children look bored and disinterested.
- Assessment is undertaken as a separate activity.
- Children are assessed through tests/exams.
- Report card conveys the child's achievement.
- Children's performance is reported in terms of marks for subject areas.

**Child-centred Classroom**

- Teacher provides learning opportunities and guides a range of meaningful learning.
- Teacher provides learning situations that give children an opportunity to observe, explore, question, experience and develop their own understanding of various concepts.
- Children participate actively in different activities/tasks.
- Children construct knowledge on their own, based on their experiences inside and outside the school.
- Children work both individually and also in groups, discussing, sharing, co-operating and respecting others' viewpoints.
- Timetable is flexible, depending to a large extent on what children want to do.
- Seating arrangement changes according to the activity being organised.
- A variety of materials, aids and equipments are available and used by children.
- Children are engrossed in what they are doing.
- Assessment is part of the teaching learning process.
- Children are assessed while doing activities/tasks.
- A report conveys the learning and progress of the child.
- Children's progress is reported in qualitative terms and on all aspects of development.

*Introduction/5*

**Suggestive Pedagogical Inputs: On the basis of the above picture of two Different Types of Classrooms, which of the two classrooms A and B do you think is inclusive and child friendly?**

### 3. Towards a Child Centered Classroom

#### 3.1. Constructivist Approach

Moving towards creating child centered classrooms requires us to rethink about the overall approach to teaching learning. One such approach that is highlighted in National Curriculum

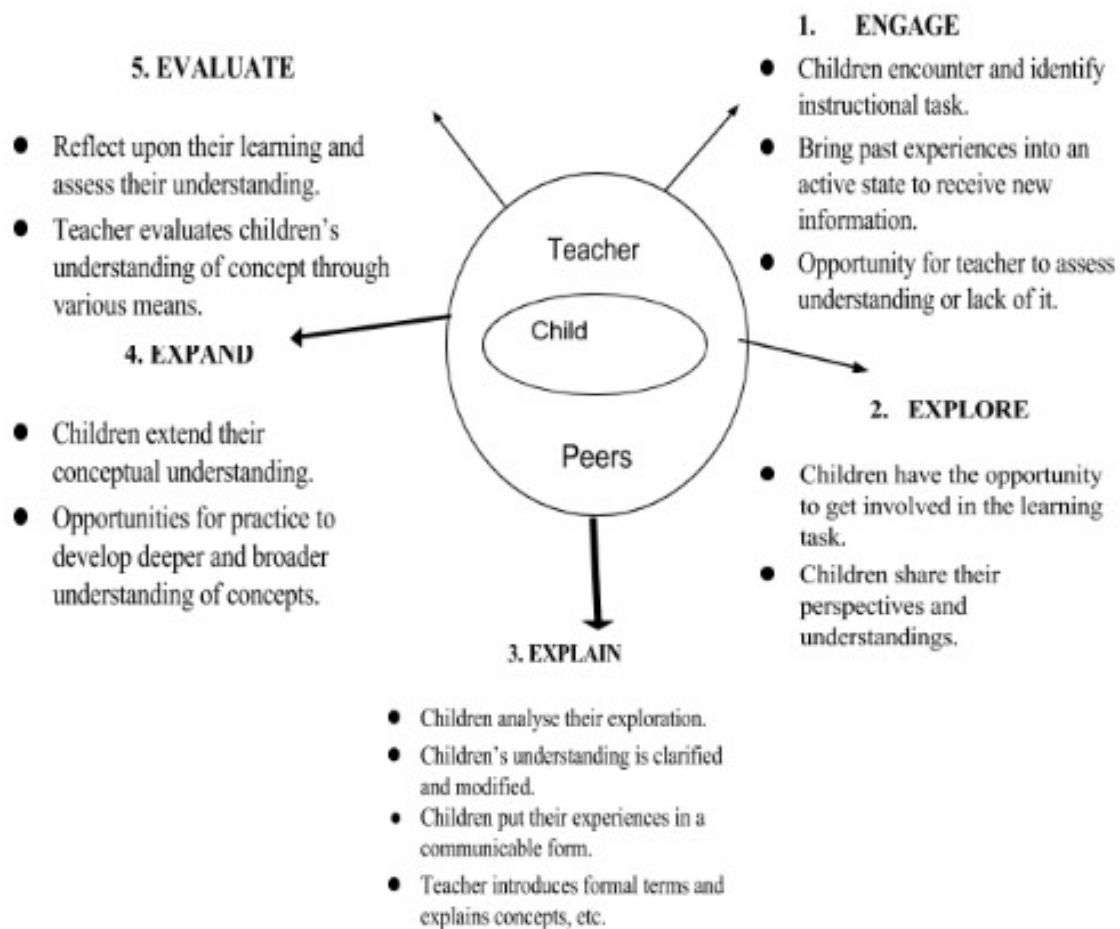
Framework 2005 is the constructivist approach. Some of you may be already using it. However, let us try to understand it in greater detail.

Constructivism is a philosophical view which states that every individual has the capacity to construct knowledge. Learners actively construct their own knowledge by connecting new ideas on the basis of materials/activities presented to them (experience). Construction indicates that each learner individually and socially constructs meaning as he/she learns. Constructing meaning is learning. The constructivist perspective provides strategies for promoting learning by all. The construction of knowledge is largely dependent upon the process of upbringing and the environment a child lives in. Thus, knowledge in this sense is essentially social and cultural in nature. Constructivism advocates that coming to know of something is not the discovery of some pre-existing reality but the subjective personal interpretation of that reality. For example, a tree is an objective reality which everybody can see and call it a tree. But the same tree may be perceived differently and interpreted differently by an artist and still differently by a botanist or a person with ethnic background. Such type of viewing and interpretation takes place in our society all the time. You may be experiencing this often because of the diversity in terms of language, culture and ethnic background, found in your region. Such differing experience is obtained because in our daily life we come across a variety of situations.

According to the principle of constructivism, for our classroom practices we should remember that the information may be shared by the teachers, but knowledge generation or understanding is the primary responsibility of the individual student. The teacher's own role in children's cognition could be enhanced if they assume a more active role in relation to the process of knowledge construction in which they are engaged. A child constructs her/his knowledge while engaged in the process of learning. Allowing children to ask question that require to relate what they are learning in school to things happening outside, encouraging children to answer in their own words and from their own experiences rather than memorising and getting answers right in just one way – all these are small but important steps in helping children develop their own understanding. In this process, cooperative learning provides a strong training ground for the construction and development of knowledge.

When we say every child constructs knowledge on his own, it is not individual cognition which is the sole generating force in knowledge construction, rather knowledge is culturally negotiated or generated in cooperation and understanding with others. For example, a child observes his father milking a cow by depriving the calf's share, at the same time in school he learns that cruelty to animals is not a good virtue. Such conflicting views pose great dilemma in the child's mind. Gradually the child learns how to resolve such conflicts. Thus in school, children learn that their constructed belief does not necessarily qualify as knowledge and that knowledge emerges from other sources as well as from their own individual cognition.

Accepting the fact that knowledge construction is the primary responsibility of the learners, the teacher acts as a facilitator in the process. The whole situation is presented in the following diagram (Figure 2: The 5 Es) which explains the entire process.



**Figure 2: The 5 Es**

Now let us see how these five Es have been used in the following example.

### **Topic- Energy Resources**

Everyday students observe the food cooked at home, electricity used for various purposes and so on. When asked to share their experiences to attempt another similar task, they are engaged in the activity of recollecting the different sources of energy that they have already experienced.

Teacher: List down the different types of energy resources you have observed at home and outside.

S1, S2, S3... individually students will prepare the list.

Teacher: Forms different groups and directs them to discuss and come out with the list.

Given below is one such list, for example:

Natural Gas	Coal	Petrol
Diesel	Kerosene	Lubricants
Firewood	Biogas	Hydro Power

Tidal power      Solar Power   Nuclear Power

Geothermal Power

Suppose one group of students have not listed a few (Geothermal – Nuclear Power), then teacher provides a clue.

Tr:      There are some places in India where the hot water spring is found. Name one or two such places.

St:      Jakrem (Meghalaya)

Tr:      Why are they found?

St:      No response

Tr:      As we go deep into earth's surface the temperature rises. Sometimes this heat energy may surface itself in the form of a hot spring.

Tr:      Could this be a source of energy?

St:      Yes

Tr:      What form of energy could it be?

St:      Heat Energy.

Tr:      Reforms the answer. This form of heat energy is known as Geothermal energy.

Like this teacher can elicit the other energy resources (Nuclear) which is not listed.

Tr:      List down the different uses of energy resources and provide supportive evidence in the form of pictures, diagrams, cartoons etc.

Students are involved in the process.

(This can be done individually and in small groups as well)

Tr:      Have you all completed?

St:      Yes

Tr:      Discuss among yourself, modify the list and state the uses.

St:      State the uses.

Tr:      Inspects the same and writes them on the board.

Tr:      Assign students to refer different resource materials (teacher provides the list and students are also free to refer to any other source) and directs them to identify the major producer of these energy resources (National/ International.)

Students prepare a list;

Tr:      Directs them to discuss and finalize the list.



Tr: Can the energy resources be classified?

St: Yes – No

Tr: If yes, tell me the classification.

If No, teacher calls for explanation of the same. Teachers are expected not to provide explanation on their own. Through discussion only students can be lead towards an affirmative response. Students provide a list of classification, one such classification for example:

- Petrol – Diesel – Kerosene – Lubricants
- Natural Gas – Biogas – Firewood – Coal
- Hydro Power – Tidal Power
- Solar Energy – Wind energy
- Nuclear Power – Geothermal power

(There could be many such classifications)

Tr. Directs the students to refer resource materials and list down the sources of these energies.

Students prepare the list.

Tr: Directs to students – on the basis of these resources further classify the energy resources.

When some students may find difficulty – teacher directs them to see the uses.

Students arrive at another classification.

Tr: On the uses, write the advantages and disadvantages.

Children are engaged in the process.

If some children cannot – teacher probes to complete the task.

While the students were engaged in individual and group activity the teacher evaluates them during the process. At the end, the teacher prepares a paper pencil test to evaluate the students learning.

### **3.2. Cooperative Learning**

A lot of teaching learning techniques is employed in the knowledge construction process. Among them Cooperative Learning (CL) is one of the frequently used instructional strategy in education. Working in cooperative groups, children learn social skills, use higher-order thinking skills, practice new concepts, processes and information. Generally in classroom children hold different notions about the concepts that they are to learn. This is because of their different upbringing process. But when

they are divided into different groups for learning, their ideas and notions come into conflict with others. Thus in cooperative learning groups, through the art of discussion, negotiation and sharing of ideas, the initial ideas are refined and modified.

Cooperative learning involves the use of varied instructional techniques and strategies. These strategies mostly aim at the development of thinking, remembering, concept formation, problem solving and logical reasoning, in social context. Some of the well-known methods of cooperative learning are Group Investigation (GI), Learning Together (LT), Cooperative Integrated Reading and Composition (CIRC) and so on. Although minor adjustments are made with regard to the situation under learning, there is always a group and they work together to achieve the desired goal i.e., knowledge construction. Given below is an example of cooperative learning.

### **Theme – Family and Relations**

#### Basic questions to explore:

- What is a family?
- What are various terms of relations in the family?
- How are students related to different members of their family?
- Why are parents and grandparents important for us? How to take care of old people?
- What is nuclear and joint family, small and big family?

#### Resources Required

- Worksheets.
- Pictures (boys, girls, men, women etc.)
- Old invitation cards.

#### Tr. Introductory Questions

Tell me everything that you know about your family and their relations.

Tell me something you don't know about your family and their relations.

Tell me something you want to know about your family.

**Grouping the Learners** – Now the students work in groups.

Teacher – Finding understanding-misunderstanding/misconception.

Some are listed here:-

- Meaning of home, house and family
- Use of terms like uncle, aunty, grandfather, (children refer to many elders with

these terms etc.)

- When to use terms like brother, sister (children observe these terms are being used even for non-biological brothers and sisters).

They may have an understanding that members living in one house are the family.

Based on the above, the teacher directs the groups to put the different terms in order and discuss among themselves. One group for example has decided to discuss in the following manner.

Family, home and house

Brother, Sister & cousin

Uncle, aunty (paternal and maternal)

Father, mother, grandfather, grandmother and great grandmother

Nephew & Niece

Small family, big family, joint family, nuclear family and single parent family.

Working in pairs or groups the students discuss the meanings of all the above concepts. As part of their discussion, they may do the following:

Consult with more knowledgeable others (parents, senior students, elder siblings and so on), refer textbook, dictionary, etc.

**Suggestive Pedagogical Inputs:** While the students are working in groups, the teacher can direct them to prepare a presentation on the concepts they are discussing. At this point, the teacher may provide a worksheet individually.

Worksheet – **Know my family**

My family photo

I am -----

My father is -----

My mother is -----

Other members in my family are -----

The number of members in my family -----

My family is -----(nuclear/joint)

My family is -----(small/big)

Teacher tabulates the data of family members as follows :

Family Members	Number of students	Class	Total
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	who have following members		
Grand father			
Grand mother			
Sister			
Brother			
Uncle			
Aunty			

My Family Members	Number	Tallies	Total
Brother	One		
	Two		
	Three		
	More than three		
Sister	One		
	Two		
	Three		
	More than three		

With the above data students are helped to infer the concept of small and big, nuclear and joint family.

Students will also develop a pictorial chart of the above.

Teacher may provide a story involving all of the above terms- make students to name the characters and identify the relations and types.

### **Role play of a family situation.**

Teacher tells a story about grandparents to the whole class and elicits from students the same kind of stories.

Directs students to make greeting cards (birthday, festival, etc.) for parents.

Terms used in different cultures for father, mother etc.

Ask students to develop illustrated dictionary of various terms that they have learned in the class.

Students find out joint family, single family etc. from their neighbourhood.

Another such group learning method which has been found most promising in promoting understanding of concepts among primary and upper primary school children is project method.

### 3.3. Project method

The project method involves the following basic steps :

**Initiating a project** - where topics are proposed jointly by a teacher and the children. While planning for a project, children have an opportunity to express their ideas, views, opinion, information, ask questions and explore various possibilities of conducting the project.

**Field experiences** – while doing the project, children can explore, observe, draw, write, construct, predict, record, find out, interview and discuss.

**Presentations** – on completion of a project, presentations can be made on the conclusions through visual display, drama, discussion, talks, etc.

Another important method is that of **Self-Learning**. In this, the child acquires knowledge and skills by her/his own effort. This method accepts every child as an individual in her/his own right. The teacher's aim should be to create/prepare such an environment where the child, without obstructing others' development, develops herself/himself, enhances her/his imagination and creative abilities. It is important to provide all the children the right kind of learning environment.

Other methods which children find enjoyable are those of **dramatization, going on trips and excursions, painting, music, group dance, poems, songs and puppetry amongst others**. These become especially useful for children at the primary and upper primary levels.

The 21<sup>st</sup> century is the age of electronic media, therefore it cannot be ignored. Although at times it is not always possible to do so, often due to lack of electricity or costly equipment. In such a situation, a school can purchase a radio and/or tape recorders to transact some lessons. Places where facilities for telecasting exist, video tapes and television can be used to promote and reinforce learning.

These are some of the strategies that can be used by teachers in providing quality education to all children.

A great task depends upon the teacher's ability to be innovative and creative and the extent of her/his motivation to learn and use effective techniques of teaching, thereby facilitating children's learning.

## 4. Creating Child Friendly Learning Environment

Most of us look at classrooms as places for serious learning and seldom think as a place where children enjoy learning activities. Classrooms consist of children who are interested in

gaining new knowledge and skills, and teachers facilitating optimal learning. The environmental conditions under which learning takes place, determines to a large extent, the achievement levels of children. These conditions may pertain to physical aspects of the environment in which schooling takes place; the pedagogy in the classroom; especially how teachers and students interact; the home environment and the attitude of parents, community and peers to sustain schooling.

There is a need to realize that a child centered classroom is not just a place for formal learning, but, also, a place where **children have rights: the right to be healthy, to be loved, to be treated with respect, the right to be protected from violence and abuse (including physical or mental punishment), and the right to express his or her opinion to be supported in education irrespective of learning needs.**

It is believed that optimal learning can take place only if schools create conditions that promote learning through a favourable classroom environment or climate. What does it mean? Classroom climate can be looked at in terms of the physical and psycho social environment that is provided in schools keeping in view the needs and requirements of the children of different age groups. However, in most schools not many efforts were devoted to developing conducive and stimulating learning environment for children with special needs.

Let us briefly look at what the terms physical and psycho-social environment mean. **The physical environment** of the school and classroom includes infrastructural facilities, space, lighting, ventilation, desks and chairs, mats, etc. that provide safety and comfort to promote student's learning and development. In addition, the physical dimensions and layout of the classroom such as space, furniture and provision of teaching-learning resources should be such that it accommodates the scheduled classroom activities with maximum effectiveness. The teacher should be in a position to conduct individual/group activities with sufficient ease, leading to maximum learning gains in children. There should be enough space for both indoor and out-door activities to take care of the overall development of the child. Along with this, a healthy and hygienic environment is equally important.

The **psycho-social environment** refers to the perceptions, feelings, social interactions and relationships that exist among members in the school. The school has to ensure psychological security for students as well as teachers. Therefore, the socio-psychological aspects of the learning environment are equally important in promoting learning among children. These include desirable patterns of social interactions between teachers and children and also among children. Every child should feel happy, satisfied and comfortable, both physically and mentally.

Keeping the child as the focus, a child-friendly classroom at the primary/upper primary stage would probably mean a place with an atmosphere where the child can:

- feel at home, be secure, happy and enjoy while learning,
- work at own pace and style,
- be exposed to a variety of experiences,
- move from one activity to another,
- have access to different teaching-learning materials and equipment,

- feel stimulated to participate in various types of activities in different subjects,
- interact easily with the teachers and other children,
- choose what she/he would like to do, explore and experiment,
- find something made by him/her in the school/classroom and thus feel proud to be a part of the class.

## 5. Stimulating Classroom Environment for Learning

Inside the classrooms, you will agree that it is the teacher who is the organizer of activities. The teacher in her/his own way sets detailed learning objectives, plans for effective use of time, ensures classroom discipline and arranges the availability of teaching-learning materials amongst other things. Therefore, it is in the hands of the teachers to make classrooms stimulating and child-friendly. You will agree that the best learning in the class is that which ensures active participation of each and every child in the teaching-learning process. For this, the setting of the classroom must be such so as to motivate and encourage learners to take active part in all teaching –learning activities. This can be made possible by providing enough teaching-learning materials for children to handle and work with.

Let us reflect as how we can organize classroom activities and display of teaching-learning material so that classrooms are more inviting, interesting, and stimulating.

**5.1. Class Display:** At all stages of schooling, particularly at the primary level, class display is an important aspect of the physical environment of the classroom. The class display should have some interesting pictures which should relate to the themes/ topics being taught in the class at that time so that the children’s curiosity can be aroused and they are stimulated to talk with each other and the teachers on that theme.

Often teachers put up only the ‘good’ work and some children do not get an opportunity to see their work displayed. It is desirable to put up something or the other made by every child so that the child feels proud of it and develops a sense of ‘belongingness’ to that class. The teacher should use objects and materials found in the child’s immediate environment and daily life.

It is important that all materials should be displayed at the eye level of children. Teachers often keep them at a height that prevents children from spoiling them. It is also necessary to periodically change the display so that the child’s curiosity stays aroused and the child looks forward to what is new on the display. There are many more things/items that can be included.

**5.2. Learning Corners:** You may have already organized a learning corner and seen the benefits. Learning corners can be arranged for each curricular area. For creating such a corner it is not necessary to have any expensive equipment. Relevant locally available material, improvised learning aids, children’s collections, materials available under the Operation Blackboard can all be well utilized. Your area might be having rich resources of different arts and craft items made by the local community. You can engage children and the community in helping you to create learning corners. Children should have easy access to the corner and use and interact with the material individually or together with other children as and when

required. Materials kept there can be used as a point of discussion and debate in class and generate different activities/tasks, for children to participate. Teacher can also take the help of Mothers Teacher Association/ Parents Teacher Association (MTA/PTA) members to organize such learning corners.

**5.3. Classroom Library:** Developing classroom library encourages children's interest in reading and learning. Easy access to library books and supplementary reading materials is very important. In many schools, supplementary books are provided but rarely used since there are no arrangements for display in the classroom. In the interest of promoting not only reading skills and reading habits, but also self-learning skills, making provision for class libraries and using them is very important at the primary and upper primary stage.

**5.4. Teaching-Learning Materials:** Teaching-Learning Materials (TLM) are the actual vehicle that takes the curriculum to the child. Out of all the materials, the textbooks have been the single most important TLM, and in quite a few schools, the only material for the child at the primary stage. The child friendly component of textbooks and other teaching-learning determine how much the child benefits from them. What is Child Friendly TLM?

The child-friendliness of TLM depends on how far:

- The language is suitable for the child for whom it is meant.
- The content is relevant for the child and within the child's level of comprehension.
- It promotes activity-based learning through the organization of the content and exercise suggested.
- It creates interest and motivation in the child to use it and learn more about what is read.

In all schools there are children of different age groups and of different abilities. Handling such children becomes a difficult task for a teacher. In such situations, supply of adequate and appropriate need based TLM relevant to their age and ability becomes important to actively engage children in the teaching-learning process. Textbooks and TLM used in these settings should enable children to work independently, once the teacher has explained what is to be done.