COMPULSORY COURSE 03 (CC-03)
TEACHER FUNCTIONS

BLOCK 01

FACILITATING LEARNING

B.Ed. CC-03 : TEACHER FUNCTIONS

Block

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FACILITATING LEARNING

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BLOCK-I   FACILITATING LEARNING

INTRODUCTION

Teaching is concerned with the all round development of the child- intellectual, emotional, social, moral and even physical. This makes the child the focus of teaching. Since it is the learner who is emphasized here, the teacher is required to guide the learner and bring about development in the learner. Teaching has undergone various changes since the ancient times of the Gurukula system to the present day, where instructional technology plays a great role. Therefore in the following units we shall first of all take a peep into the historical perspective of teaching with reference to the changes it has undergone down the ages.

Teaching is an art that results in learning in the students. To achieve this teaching should be performed in a way to bring about learning. This can be done only when the task of Teaching is deeply studied with reference to the components of the same. For teachers of all times, it is mandatory that these components are the skills that comprise the teaching task. Here they are identified, practiced and mastered. This is done using the technique of 'microteaching'. In-the following Units, we shall identify what these individual skills are, how they can be practiced and mastered so as to integrate into the Teaching skill with reference to classroom teaching.

Teaching is a process of communication that takes place in the classroom. How this takes place and what exactly are the components of this process are will be discussed. Teaching helps the child to respond to his environment. In such a context, we shall also discuss the Models of Teaching - those that help the teacher in teaching concepts, initiate thinking and enquiry processes in the students and develop positive social behaviour and so on. You will understand how these concepts help in your classroom teaching of the various subjects and the concepts in them.

This block consists of six Units- In the first unit the concept of Teaching is explained. Teaching is a complex process consisting of many Micro-skills. These are introduced in Unit 2. In unit 3, Models of Teaching have been designed by educationists. Some of these Models of Teaching are described in Unit 4. In Unit 5 the nature of Communication is explained. In Unit 6 Teaching is considered as communication.

These topics when read and internalized will help in bringing out more effective teaching. So then, let us now go ahead and deal with these one by one.

UNIT 1 □ TEACHING- AN INTRODUCTION

Structure

1.1   Introduction

This unit will provide you with definitions of Teaching, the meaning of Teaching and landmarks in the history of teaching-learning process in India. These landmarks will acquaint you sufficiently well with a good historical perspective from the pre-Vedic days to our contemporary set-up in Independent India.

The second part of this unit will take up for detail analysis of several complexities involved in the process of teaching. It will be dealt with, as a complex task that contains within it, the various components that makes it a complex activity. The narrative in this unit, it is hoped, will also motivate you to arrive at your articulation of these two issues of teaching, namely:

    a) Teaching as an activity to facilitate learning.
    b) Teaching as a complex task.

I hope you will whole-heartedly participate as an active distance learner, and interact with the learning material provided.

1.2   Objectives

After having worked through this unit, you will be able to:

● Define the concept of teaching.
● Explain teaching as an activity that facilitates learning.
● Trace the landmarks in the development of teaching in India.
● Analyse the components in the complex process of teaching.

1.3   Teaching

Teaching is a series of events through which a teacher attempts to bring desired change in behaviour of the students. This brings about a change in the thinking, feeling and action of the students. It helps them to adapt to their environment.

In the Dictionary of Education, Teaching is defined as:

1. Teaching is the act of instructing in an educational institution.
2. Teaching is the management by the instructor of the teaching-learning situations including:

(a) Direct interaction between the teacher and the learners
(b) Proactive decision-making process of planning, designing and preparing the materials for the teaching-learning conditions and
(c) Post-active redirection (Evaluation, Redesign and Dissemination) and

3. Collectively, that which is taught, such as the teaching of a religious leader."

One of the many ways to understand the nature of Teaching is to analyse the definitions of 'Teaching'.

As a first step in this direction, let us now take a few definitions on Teaching:

Edmund Amidon - "Teaching is an interactive process, primarily classroom talk which takes place between teacher and pupils and occurs during certain definable activities."

H. C. Morrison - "Teaching is an intimate contact between a more mature personality and a less mature one which is designed to further the education of the latter."

Clarke - "Teaching refers to activities that are designed and performed to produce change in students' behaviour."

Now let us start analysing the definitions to understand the nature of teaching. Taking

the definition of Edmund Amidon, teaching is a process that is an interaction between the teacher and the students in the classroom during which activities that are defined are performed. Here, the "definable activities" may be set to include those that are to be performed by the teacher and the students so as to realize the objectives with reference to the corresponding activity. This purposeful interaction that is a two-way communication between the pupils and the teacher results in the improvement of both participants. This definition also considers the act of teaching as one that is properly planned with objectives that are kept as the goals to be achieved at every stage of teaching.

The definition of Morrison focuses mainly on the levels of maturity between the teacher and the taught. The more mature and experienced teacher who enjoys the elevated position by virtue of his knowledge, status and experiences through the teaching process helps the lesser-experienced pupil to develop according to his needs as well as those of the society. The teacher sets forth the ideals and also acts as a model to be emulated by the pupils. Looking deep into this definition brings to light the aspect of the passivity of the pupils who are mere listeners, and only imitate the model presented by the teacher.

The definition of Clarke is almost a definition of education, which says that it is an activity that brings about a change in behaviour. This should of course be taken as a change that is desirable, which is achieved through a set of organised activities.

Analytical concept of teaching: In order to do an analysis of the concept of 'Teaching', we first need to know the components of teaching which can be divided into broad aspects of (a) Activities undertaken while teaching (b) Objectives to be achieved through these activities. N. K. Jangira and Ajit Singh (1982) analysed teaching in the following manner:

"Teaching can be analysed in terms of teacher behaviour at least three levels i.e., component teaching skills, component teaching behaviours comprising the component skill and atomistic teaching behaviours." (This means the finer aspects of teaching, like, the attitude of the teacher, interest, influence on students, etc.)

Diagrammatically, this analysis can be presented in the following manner:

Teaching

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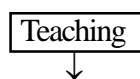
Level 1: Teaching may be analysed into various component teaching skills say, S1, S2, S3...Sn

S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	Sn

Level 2: Each of the components teaching skill may be analysed into a number of component teaching behaviours, say, C 1, C2, C3... Cn. (Component teaching skills - 7)

↓

CI	C2	C3	C4	C5	C6	C7	C8	Cn

Level 3: Each of the component teacher behaviour may be further analysed into atomising teaching behaviours, say, Tbl, Tb2, Tb3.... Tbn. (Component teaching behaviour-4)

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Tbl	Tb2	Tb3	Tb4	Th5	Tbn

Based on the above pattern of analysis, teaching may be analysed into well-defined components of 'teaching skills' or 'Technical Skills' of teaching. This projects the concept of teaching as having a group of skills, which the teacher has to essentially enquire so as to make teaching effective.

1.3.1 As Activity to Facilitate Learning - Historical Perspective

Teaching is useful because it facilitates learning, for as Dewey aptly suggests, a teacher can no more teach unless someone learns, than a seller can sell unless someone buys. Good teaching enlightens the society because it is done effectively, whereas, poor teaching results in ignorance and intellectual stagnation.

To understand teaching, we should first know what teaching is not. As per one definition, teaching is giving information and parting knowledge. It is actually this aspect that is being given more than needed prominence in institutions. Going by this definition, we need to make sure that the knowledge given by the teacher is received by the students, for only if they are prepared to receive it will there be any learning taking place. When the pupil is ready to receive the knowledge, teaching facilitates learning. Therefore, teaching is helping the pupil to learn and do things for himself and getting him to get adapted to his environment.

When we mentioned that teaching is helping the pupil to get adapted to his environment, it naturally includes the training of his emotions. When right feelings are evoked in the pupils, they do the right thing. Sri Aurobindo says, "The first principle is that nothing can be taught. The teacher is not an instructor or taskmaster; he is a helper and guide. His business is to suggest and not impose. He does not actually train the pupils mind; he only shows him to perfect his instruments of knowledge and helps and encourages him in the process. He does not impart knowledge to him, he shows him to acquire knowledge for

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himself. He does not call forth the knowledge that is within, he only shows him where it lies and it can be habituated to rise to the surface."

Teaching is very much a process of socialization. Learning is no doubt an individual task, but takes place better in a social set-up, as the group has a controlling influence on the individual learner.

According to B. Othanel Smith, "Teaching is a system of action involving an agent, an end in view and a situation including two sets of factors-those over which the agent has no control (class-size, size of classroom, physical characteristics of pupils, etc.), and those which he can modify (ways of asking questions about instruction and ways of structuring information or ideas gleaned)".

Thomas F. Green gives the following definition of Teaching: "Teaching is an instance of human action aimed at enhancing the human capacity for action."

When we analyse these two definitions, we find that there are some important aspects that we should play close attention to. Firstly, teaching is a system of action, which is directed at a goal; secondly, it takes place in a situation that comprises of controllable and uncontrollable sets of factors. The second definition puts forth the idea that, teaching results in increasing the "capacity of action" of the learner.

I would like to further explain the concept of teaching in a slightly unusual way, by once again quoting Smith, who has elaborated his own definition, analysing the same to reveal the components within. Teaching as a normative activity, is defined by him in the following manner:

"Normative teaching requires that the activities of teaching conform to certain ethical conditions-

    a)   Conditioning (stimulus-obeying behaviour)
    b)   Indoctrinating (uninformed behaviour)
    c)   Brainwashing (conditioned behaviour/uninformed behaviour)
    d)   Informing (information with explanations or evidence, no experience provided)
    e)   Training (rule-obeying behaviour)
    f)   Teaching (processes of verification, concern for what the student thinks, preparing for independent action)"

You will see that, an analysis of the components of the above definition, gives a hierarchical description of the act of teaching. This hierarchy culminates in the act of teaching as a process of verification, which has a concern for directing the thought process of the learner. This prepares him for independent action. When this takes place, we can

say that teaching facilitates the learner to learn, by providing him the right environment, guiding the learner, asking questions as well as encouraging the learner to ask questions. This enables him to discover things for himself. The teacher thus plays the role of a facilitator, facilitating the learner to learn by himself.

As we have now listed out the functions of teaching, you will no doubt be interested to know how this process of teaching has been taking place since the pre-Vedic days in India. I shall now try to satisfy your curiosity by giving you a bird's-eye view of teaching processes, depicting the same in a tabular form, so that it is concise, and at the same time helps you to make a comparative study of teaching processes right from the Vedic times to the present day.

Period	Institution	Feature	Aim
Vedic period	Gurukula	Teacher-centered	Religion oriented
Buddhist period	Monasteries & Vihars	Teacher-centered	Religion oriented
Muslim period	Maktabs & Madarasas	Teacher-centered	Religion oriented
British period	Missionary schools, matric schools, western model schools Teacher-centered		Politically oriented
Independent India	Schools, colleges & Universities	Learner-centered	Serving Constitutional ends

The tabular presentation depicted above gives you an idea of the transition in the process of teaching through the Vedic ages to the present times. In order to present a little more information with reference to the historical perspective, let us now see how the process of teaching took place at various times.

During the Vedic period teaching was verbal as writing material was not available in those days. This necessitated the verbal preservation and verbal presentation of the material to be taught and learnt. There was ideal teacher-pupil relation in the Gurukula, with the teacher acting as almost the father of the pupil, and the pupil like a son. The Guru developed qualities in the pupil so as to take him to greater heights-than himself.

During the Buddhist period though writing material was available, writing was not common. Therefore, teaching was mostly verbal. Education was mainly to spread the Buddhist religion and teaching was imparted to monks at the Monasteries and Viharas.

Education during the Muslim period was orgasnised in Maktabs and Madarasas mainly to spread the Islam religion. To a certain extent, military education too was imparted. Corporal punishment in educational institutions made its appearance in this period. There was no ideal relationship between the teacher and the taught, as the teacher did not occupy the position that he enjoyed during the Vedic and the Buddhist period.

We find that the British at first were apprehensive about providing education to the masses of Indians. Therefore, they educated the higher classes alone, expecting the 'Downward Filtration Theory' to materialize. According to this theory, the British government ruling India, anticipated education among this class would gradually permeate downward to the masses from above. Thus, education during the British period was politically motivated. Teaching in the mission schools and European model schools was teacher-centered.

The major changes that you will see in the educational scenario after the British rule is that, education in the schools, colleges and Universities became need based, from the point of view of the nation, as well as the pupils. Education catered to the Constitutional requirements. English, as well as the national and regional languages are given prominence. The scene gradually has improved with the recommendations of the various Education Commissions being implemented so as to enhance the quality of education.

Now, after having gone through the short description of the educational scenario and teaching process right from the Vedic to the present days, you can compare the same and while doing so, you will find a hierarchy with reference to the teaching process.

'Check Your Progress' -1

1. How does H. C. Morrison define teaching?

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2. Into what components can the act of teaching be broadly classified?

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3. Name the three levels of teacher behaviors as put forth by N. K. Jangira and Ajith Singh.

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4. Why was the teaching verbal during the Vedic times?

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5. What major difference do you find-in the teaching processes between the British period and the present India?

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6. According to Sri Aurobindo, what is the role of a teacher?

1.3.2   Teaching as a Complex Task

Now that you are familiar with the meaning of Teaching, let us now analyse the task of teaching so as to get to know what exactly the task of teaching comprises of. Such an analysis will reveal that the process of teaching can be viewed from various angles, with respect to the activities and the elements involved in it.

Teaching results in learning. This 'teaching behaviour' when analysed will explain the concepts of teaching and learning. The following components involved in the teaching task will reveal to you that teaching is a complex task.

Teaching is a system of activities: You certainly will agree that Teaching is not just one activity but a series of logical activities like saying, writing, explaining, demonstrating, asking questions, defining, describing, classifying, answering, reacting, directing, giving pauses, praising, encouraging, and rebuking. These specific activities go into making the teaching activity.

Teaching is an interaction of elements: We know that teaching is a process that involves the elements, namely the teacher, the subject and the learner. Of the three mentioned, the teacher and the pupil being characteristically social, the entire process of teaching becomes social with the intention of bringing about learning.

Teaching is a constant shaping-up process: We have in the preceding paragraph reasoned out that teaching is an interaction of elements. This being so, there is every

possibility that this process of teaching has every scope of improvement with experience and efforts on the part of the teacher.

Teaching is goal-oriented: Teaching is always with a purpose, the major one that of bringing about a desirable change in behaviour. You know that this change is effected due to learning. We could therefore logically conclude that teaching is goal-oriented, the goal being specific with reference to the needs and objectives of teaching-learning.

Teaching is an influence-directed activity: When you consider a teaching-learning activity in progress, you will find that there is an influence exerted by the teacher on the learner. It is only on very rare occasions that the learner influences the teacher. Thus you can conveniently conclude that teaching-learning activity is an influence-directional activity.

Teaching has a logical and linguistic dimension: If you recall the list of activities mentioned in the very first point in this topic, you will agree that all of them like defining, describing, classifying etc. are logical and at the same time possess a linguistic dimension that goes without saying. These two aspects namely logic and language are inseparable from the act of teaching. According to Smith and Meux (1962), language is the basis for all teaching interactions and without logic; a teacher cannot succeed in classifying, comparing or contrast. Teaching is thus logic and language based.

Teaching is a family of activities: According to the definition of Teaching by Smith B.O, teaching is a conglomeration of activities like conditioning, indoctrinating, informing, training and instructing. Thomas F Green asserted that the structure of teaching concept could be described by analysing these activities. This analysis you will find, will show you how these activities are related and how there is a gradual transition from to the next. Therefore, teaching can be said to be a family of activities that are interrelated.

Teaching is a complex skill: Teaching is a complex skill that has many sub-skills. These sub-skills are those that when analysed and identified reveals the complexity of the skill of teaching.

The above points very well show that teaching is a complex activity involving the various elements, activities and components mentioned therein.

Teaching comprises of various stages: Let us now discuss the complexity of the teaching act by relating it to the various stages of teaching. Teaching doesn't just mean entering a classroom and delivering the goods there. In order to do so efficiently, calls for a considerable amount of planning. After planning, this has to be executed carefully in the classroom in a systematic manner. Once this is done, the whole process has to be evaluated as to the effectiveness by relating it to the achievement of the objectives of teaching.

Based on the procedure mentioned above, we can divide teaching into three sequential steps corresponding to the stages of teaching. These phases of teaching are namely the pre-active phase of teaching, interactive phase of teaching and the post-active phase of teaching.

Pre-Active Phase	Interactive Phase	Post-Active Phase
(Planning Stage)	(Implementation Stage)	(Evaluation Stage)
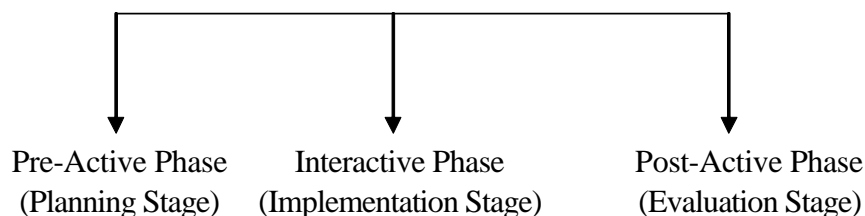
Let us now discuss each phase in detail.

Pre-Active Phase: As mentioned in the previous paragraph, teaching has to be done only after a careful planning so as to perform the task smoothly and successfully. This particular stage involves two major steps, namely,

(a) Establishment of objectives or goals
(b) Deciding ways to achieve these objectives or goals.

(a) Establishment of objectives or goals: In planning a lesson, the very first step should be framing of objectives related to the topic that has to be taught. With reference to a period of instruction, the specific instructional objectives are to be written in behavioral terms.

(b) Deciding ways to achieve these objectives: As the teacher has already identified the specific objectives to be achieved with reference to the topic to be dealt with, the next move is to decide how these specific objectives are to be achieved. This should be done keeping in mind the topic or content to be taught, as this is content specific. All topics cannot be dealt with in a uniform manner. Planning is done for deciding the following aspects:

i) Learning experiences to be given
ii) Teaching approach to be followed
iii) What maxims/principles can be followed?
iv) Teaching aids to be used
v) Time taken to teach the particular topic
vi) Management of the classroom
vii) Tools to be used for evaluation

Interactive Phase: Having planned the teaching in the first phase, in this second phase, the teacher executes the plan. This is nothing but the actual teaching. For the successful implementation and achievement of the objectives framed in the first phase, the

teaching should proceed in an interactive manner. Both students and teachers are involved in this process. This improves the quality of teaching. The activities that take place in this phase can be listed as follows:

i) Perception
ii) Diagnosis
iii) Reaction process

Let us now see what these exactly mean.

i) Perception: The aspect of perception relates both to the teacher as well as the students. As for the teacher, he/she has to perceive the classroom atmosphere, preplanning, abilities in interacting with the particular group. The students on their part have to perceive these aspects of the ability of the teacher, personality characteristics and behaviour of the teacher from the point of view of a desirable interaction between them and the teacher.

ii) Diagnosis: It is the teacher's concern to diagnose the abilities of the pupils, their academic background, their intelligence, their interests and aptitude. This can be done by questioning or by accessing their performance by providing opportunities to do so. The students access their own abilities, interests, aptitude and behaviour performance of their responses through verbal or non-verbal interaction.

iii) Reaction process: Classroom teaching involves continuous action-reaction between teacher and pupils. The action of the teacher decides the reaction of the pupils. For this to be performed successfully so as to result in realisation of the specific objectives, the teacher has to give the proper stimuli, reinforcement and feedback. The teacher should also adopt strategies to suit the needs of the pupils and the specific objectives to be realized. When the teacher does this, a proper reaction can be expected from the pupils in response to the stimuli and teaching techniques used by the teacher.

Thus, the interaction phase of teaching involves the effective interaction between teachers and pupils in an appropriate classroom atmosphere, wherein, the teacher provides suitable activities for the students.

Post-active Phase: As mentioned earlier, this phase deals with the evaluation activities. First and foremost, it attempts to measure the desirable change in behaviour in the pupils resulting in the realisation of the specific instructional objectives. Now let us see what the ways of testing this achievement. The following are the general devices adopted- Tests, Quiz, Oral Questions, Structured or Unstructured situations and Behavioural Situation. The devices are to be selected appropriately so that they project the extent of improvement in the students.

The advantages of this evaluation are many and may be listed as follows:

- Helping the teacher to decide the suitability of the specific instructional objective and the resulted extent of achievement of the same. This helps the teacher to weigh the strengths and weaknesses.
- Helps the teacher in evaluating the organisation of the content and the method adopted to teach the same.
- In evaluating how suitable the teaching aids, teaching strategies adopted have been, and how the same can be altered for further improvement.
- In accessing the classroom environment, the activities and the learning experiences given to students so that necessary changes can be brought about to make teaching more effective and result oriented.

The teaching task is thus composed of various phases that involve a variety of activities, approaches and techniques, all of which go into making the task of teaching a very complex one.

'Check Your Progress' - 2

1. List four logical activities that form part of the teaching activity.

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2. What activities according to Smith B.O. form the concept of Teaching?

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3. Into what phases can the teaching task be divided?

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4. What does each stage of the task involve?

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5. What are the major steps in the Pre-active phase?

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6. What are the aspects to be decided while planning?

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7. What activities are observed in the Interactive phase?

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8. What does the teacher diagnose in the pupils?

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9. What brings about effectiveness in the reaction process?

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10. Give two advantages of the evaluation in the post-active phase.

1.4   Let Us Sum up

- Teaching is a system of action which has a goal.

- Teaching takes place in a situation that comprises of both controllable and uncontrollable factors.
- Teaching increases the "action capacity" of the taught.
- Teaching facilitates the learner to learn by providing him the right environment, guiding the learner.
- Asking questions as well as encouraging the learner to ask questions and thus help him discover things for himself.
- The teacher plays the role of a facilitator, facilitating the learner to learn by himself.
- Teaching has invariably been teacher-centered or subject-centered prior to independence, it became learner-centered or activity- centered long after India got independence.
- Teaching is a complex task, comprising connected activities such as, saying, writing, explaining, describing, demonstrating, praising, rebuking etc.
- Teaching is the interaction among the three elements namely the teacher, the subject and the taught.
- Teaching is a constant shaping-up process that improves with the efforts of the teacher.
- Teaching is an influence-directed activity, the influence being uni-directional as it is generally the teacher who influences the learner and very rarely vice-versa.
- Teaching according to Smith B. O. is a conglomeration of activities like conditioning, indoctrinating, informing, training and instructing.

1.5 Answers to Check your Progress

'Check Your Progress' - 1

1. "An intimate contact between a more mature personality and a less mature one which is designed to further the education of the latter."

2. (a) Activities undertaken while teaching

   (b) Objectives to be achieved through these activities.

3. Level 1-Component Teaching Skills
   Level 2 - Component Teaching Behaviours
   Level 3 - Atomistic Teaching Behaviours

4. Teaching during the Vedic times was verbal and memory dependent as writing material was not available in those days.

5. During the British period teaching was teacher-centered whereas in the post independent India it is pupil-centered.

'Check Your Progress' - 2

1. Defining, explaining, classifying and comparing.

2. Conditioning, indoctrinating, informing, training and instructing.

3. Pre-active, Interactive and Post-active phases.

4. Pre-active phase involves planning, Interactive phase involves implementation and Post-interactive phase involves evaluation.

5. (a) Establishment of objectives or goals (b) Ways of achieving these objectives or goals.

6. Learning experiences, teaching approach, maxims to be followed, teaching aids to be used, time taken to teach, class-room management, tools for evaluation.

1. Perception, Diagnosis and Reaction process.

2. Abilities, academic background, intelligence, interests and aptitude.

3. The teacher giving proper stimuli, reinforcement and feedback.

4. Evaluation of the organisation of content, suitability of the teaching aids. (or any two among those given).

1.6   Unit - End Exercises

1. Discuss the changing processes of teaching in India from a historical point of view.

2. Explain how Teaching is a complex task.

1.7   References

1. Rai, B. C, *History of Indian Education*, Prakashan Kendra, Lucknow.

2. Mathur S. S., *Teacher and Secondary Education*, Vinod Pustak Mandir, Agra.

3. Pandey K. P, *Modern Concepts Of Teaching Behaviour*, Anamika Publishers and Distributors, (P), Ltd., 1997.

UNIT 2 ▢ MICRO SKILLS OF TEACHING

Structure

2.1   Introduction

You have by now come to terms with the fact that teaching is a complex task, after having gone through the previous unit. In the current unit, we are going to find out why teaching is a complex skill. For this, we need to know what the sub-skills of teaching are, and how these sub-skills when individually acquired and practiced, integrate to make up the Skill of Teaching.

The technology of practising these skills originated at Stanford University in 1961 as an experimental research project, but the name 'Micro Teaching' was coined in 1963. In India, it started in the early '70s.

2.2   Objectives

After working though this unit, you will be able to:

- Trace the field, which was the source for this practice for gaining experience in teaching practice
- Reason out why the skill of teaching is a complex skill
- Describe the concept of "micro-teaching"

- State the steps in the micro-teaching cycle
- Explain the cycle of micro-teaching
- Bring out the importance of the strategy of micro-teaching in enhancing the competency of the teacher
- Point out the limitations of micro-teaching

2.3 Micro-Skills of Teaching

The skill of teaching when analysed is found to comprise of various sub-skills. Take for example a classroom teacher who is taking a lesson. You will observe that during the teaching process, to begin with, the teacher resorts to introducing the lesson / topic and then goes about explaining the concept / topic. In order to make the comprehension of abstract concepts easy, the teacher gives examples of the phenomenon observed in real life situations. Then to make sure that they have understood, the teacher evaluates by questioning or using some other device.

In the previous paragraph you will have noticed at least three or four sub-skills that the teaching skill is made up of. They are the skills of introducing a lesson, explaining, giving examples, asking questions. There are more of these skills. You will agree that these individual skills are very essential for a teacher. Such skills are therefore called the core-teaching skills. It is essential that any teacher, irrespective of the subject that he/she teaches, needs to possess these basic sub-skills. These individual skills are called micro-skills of teaching.

2.3.1 Concept

In the paragraph 2.3, you were introduced to a few sub-skills of Teaching and you came to know that these skills are very essential to a teacher, in order to make teaching result-oriented and effective. This being so, each of these skills is to be individually acquired and developed. These skills thus individually developed should be integrated into the macro skill of Teaching. Therefore, it is but reasonable to refer to these sub-skills as the "micro-skills" that make up the "macro" Teaching skill.

These micro-skills are developed in the teacher / teacher-trainee by a 'safe-practice' technique. This practice enables the teacher-trainee to gain confidence, after mastering each micro-skill individually. It also helps an experienced teacher in honing his /her skills and consistently improves the teaching skill. This technique that equally helps a teacher-trainee as well as the experienced teacher is called "micro-teaching".

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You will be surprised to know that the strategy of this practice i.e. the "micro-teaching" has been adopted from the "moot court" arrangement made available to the law student, and the "cadaver" experience, experienced by the medical student. This was also done in the training of pilots, who had several 'rehearsals' of flying, before actually starting to fly commercially.

Let us now get to know the meaning of the concept of micro-teaching. The words 'micro' and 'macro', as you know, denote 'small' and 'large', respectively. Thus 'micro-teaching' may be defined as a 'scaled-down teaching encounter' that helps a trainee in practising specific instructional 'micro-skills', (one skill at a time) taking a very limited content, (a single topic) with the class size of about five to ten pupils, practising for about five to seven minutes at a time. You would have noticed that all the components of the teaching scenario are reduced from the real classroom-teaching situation. This justifies the nomenclature, 'micro- teaching'. The concept of micro-teaching implies a controlled practice in a simplified setting with a focus on a specific skill.

'Check Your Progress'- I

1.   What are micro-skills?

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2. From where is the strategy used in the practice of micro-skills adopted?

2.3.2 Importance

As you are in-service teachers, you will remember the very first day of teaching. Recall that first experience and you will admit that you had been a little nervous of facing a class of 40 to 60 pupils. It was to a considerable extent a complex situation interacting with such a large group, with 80 to 120 pairs of eyes constantly watching every move of yours. This would have put you on guard and made you think twice before you made any move, or utter any word. Of course, gradually you would have got used to this. Now take the case of a trainee who is just out of college and joined the training programme. When the time comes for him/her to face the students during the teaching practice session, he/she,

unlike you with no experience of teaching, becomes nervous to face the class. The practice of micro-skills of teaching helps both, the experienced teacher as well as the pre-service teacher, as the same benefits them.

In paragraph 2.3.1 you have read that the practice of micro-skills of teaching is "scaled-down" in the aspects of (a) the number of skills - one at a time (b) scope - very small content (c) duration of practice - 5 to 7 minutes (d) number of students - 5 to 10. As a result the trainee feels more confident. Moreover, the micro-skills being practiced individually, helps the trainee to master each one of them with repeated practice, during the micro-teaching sessions; and integrate them. As for experienced teachers, you will agree that it them to confidently impart new information and ideas in their concerned subject. They are made competent and capable enough to face the challenges in their day-to-day teaching.

Micro-teaching is an important technique that helps the trainee to master the components of the complicated task of teaching, before he attempts to perform effectively to teach at the macro-level.

'Check your progress' - 2

1. How does micro-teaching help the pre-service trainee?

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2. How does micro-teaching help the experienced teacher?

2.4   Acquisition of Micro-Skills-Process

We have repeatedly referred to the "micro skills of Teaching". What are these "micro skills" and how are they acquired?

Teaching as already mentioned is a complex skill. This complex is split up into its sub-skills. It does not mean that they are split; but that certain sub-skills are identified in it for the convenience of practising each one individually. Such sub-skills, called micro-skills of

teaching, after being individually practiced and mastered are integrated into the complex skill of teaching.

An important aspect of micro-skills that I would like to mention here, is that, irrespective of the subject handled by any teacher, or any topic, teaching skill has in it certain very important sub-skills which is a must for any teacher. Such sub-skills/micro skills are called the core-teaching skills. A list of such skills may exceed twenty. But from these a few major sub-skills are practices by the process called "micro teaching", which you have already been introduced to in 2.3.1.

Let us now see what this process of micro-teaching is all about. According to J. C. Cliff and others, the process of micro-teaching has three phases: (1) the knowledge acquisition phase, (2) the skill acquisition phase, and (3) the skill transfer phase.

1. **The knowledge acquisition phase:** Here the practitioner is acquainted with the particular micro-skill. This can be done in one of the following ways or a combination of them.

   a) Through reading material

   b) A live demonstration of the micro-skill by an expert

   c) A video-tape of the demonstration of the skill

In the live as well as the videotaped of the demonstration of the skill, the practitioner has a model whom he emulates. The practitioner therefore reads, observes or views as the case may be. This helps him to acquire the knowledge about how to practice the skill.

2. **Skill acquisition phase:** During this phase, the practitioner first plans a micro-skill and manipulates the model, in order to practice the particular skill. For this, first of all, the 'setting' for the micro-teaching has to be done wherein the size of the micro-class should be decided. This could range between 5 - 10 students. In the micro-teaching setting, the students are the practising individuals of the peer group, and not the real students. Thus micro-teaching could be referred to as 'micro-simulation'. The next point to be considered is the duration of the micro lesson, which generally extends from 5 - 7 minutes. The 'setting' thus taken care of, the feedback is the next point of consideration. This aspect can be taken care of in various ways; the most economic and practical way of doing this is to provide observation schedule sheets to the peer group and the teacher educator, who record their comments on these sheets. Once the practitioner has performed the skill, these comments are provided to him/her as the feedback. On the basis of this feedback, the practitioner re-plans his/her micro-lesson for re-teaching.

These activities of plan, teach, feedback, re-plan, re-teach and re-feedback go into forming the **cycle of micro-teaching.**

3. **Skill transfer phase:** In the third phase of the micro-teaching programme, called the skill transfer phase, the practitioner who has till now practiced the individual micro-skills is now set to transfer the acquisition of these to a wider classroom, wherein he/she faces a larger group of students, for a longer duration (15-20) and deals with a larger content. This phase calls for the 'integration' of two or more skills. The combination depends on the objectives to be realized. Such practice sessions repeated twice or thrice helps in the 'skill transfer' form the micro-teaching to real classroom macro teaching.

J. C. Clift and others have represented the process in the following manner:

| 1. | Knowledge acquisition Phase | Observe Demonstration Of skill | Analyse and Discuss Demonstration |

| 2. | Skill acquisition phase | Prepare Micro-Lesson | Practice Skill | Evaluate Performance |

| 3. | Transfer phase | Transfer of Skill to actual teaching situation |
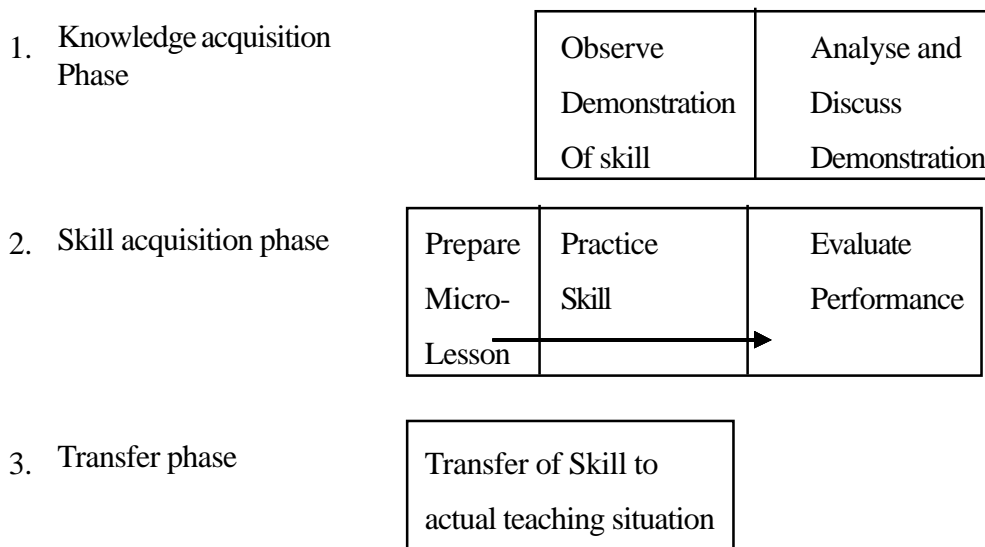
Now, having seen the three phases, let us look into the steps that make up the three phases.

1. **Orientation of the trainees:** In this step, the trainees are given information with respect to the concept of micro-teaching, significance of using micro-teaching, procedures of micro-teaching, setting forth the adoption of the same for classroom teaching.

2. **Discussion of teaching skills:** This step comprises the following:

(a) Analysis of the component teaching skills.

(b) Discussion of the role of these in teaching.

(c) Discussion of the components of the skill.

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3. Selection of a particular skill: Trainees are given the necessary knowledge about how to observe a model of demonstration of the selected skill.

4. Presentation of the model of a particular skill: This can be done in any one of the following ways or using a combination of these:

(a) Videotaped demonstration of a model lesson

(b) Written handbooks pertaining to the particular skill

(c) Listening to an audiotape of the skill

(d) Live demonstration of the skill by an expert

5. **Observation of the model lesson:** The trainees are helped to observe intently the model lesson with the help of an observation schedule of the particular skill.

6. **Critical Appraisal:** Trainees are made to give a critical appraisal of the model lesson.

7. **Preparation of the micro-lesson plan:** The teacher educator helps the trainees in writing the micro-lesson plan for the selected skill, with reference to the behaviours therein that are the components of the particular skill.

8. **Creation of a Micro-teaching setting:** The NCERT gives the following aspects required for the setting up of a Micro-teaching session:

a) Number of pupils - 5 to 10

b) Type of pupils - Real pupils or peers

c) Type of supervisor - Teacher educators and peers

d) Time duration for a micro lesson - 6 minutes

e) Time duration for a micro lesson cycle-36 minutes

This is divided as follows:

Teach session - 6 minutes

Feedback session - 6 minutes

Re-plan session - 12 minutes

9. **Practising the skill:** Here, under the teach session, the trainee teaches the lesson as per the micro lesson plan, for 6 minutes to a group of 5 - 10 students; real or peers. The peers and teacher educator supervise this. It may also be audio-taped and / or video-taped for a more effective feedback to be provided to the trainee.

10. **Providing feedback:** Immediately after the teach session, the trainee is given the feedback by the teacher educators and peers. If the lesson had been recorded on a audio/ video tape, the same is also played back for more effective feedback.

11. **Re-plan session:** Based on the feedback provided, the trainee re-plans his micro-lesson plan, strengthening the strong points and avoiding the weak ones. For this he is given 12 minutes.

12. **Re-teach session:** On the basis of the re-planned lesson, the trainee teaches for 6 minutes.

13. **Re-feedback session:** Once again feedback is provided as earlier by the peers, teacher educator, audio and / or video playback of the recording.

14. **Integration of teaching skills:** Having practiced the individual skills and acquiring a considerable degree of mastery over the same, these are now integrated and used in the real teaching situation in a classroom.

A mention has to be made here about the importance of the video / audiotape used as a tool for feedback. C. C. Wood says that the videotape helps the trainee to acquire a thorough awareness of his teaching behaviour and so this is a very useful instrument in the Micro-teaching technique. Moreover, sometimes the observers miss out on an important aspect of behaviour, while noting down in the observation schedule.

Importance of Micro-teaching Technique:

1. **Micro-elements:** Micro-teaching is a technique that helps the trainee to master the components of the complicated task of teaching, before he attempts to perform effectively at the macro-level.

2. **Identification of different teaching skills:** The various skills can be identified and classified under three heads and independently practiced. These three heads and the skills contained within are:

a**) Pre-instructional skills:** This involves writing of instructional objectives, sequencing knowledge to be presented sequentially so as to realize specific objectives, proper organisation of content, selection of teaching aids, activities etc,

b) **Instructional skills:** These that comprise the actual class-room teaching are-skills- of introducing lesson, explaining, illustrating with examples, questioning, probing questions, recognising attending behaviour, reinforcing pupil participation etc.

c) **Post-instructional skills:** Skills of writing test items for evaluation, interpreting pupils' performance in the test, planning remedial measures etc.

3. **The feedback element:** Micro-teaching technique provides a valuable system of immediate feedback that is given by the supervisor. Along with this oral feedback, there is also the provision for:

a) Observation schedule filled by the peer group

b) Audio-tape recording which records the verbal interaction

c) Videotape recording, which provides a more accurate feedback of the classroom activities of verbal, non-verbal and interactive patterns of the trainee.

4. **Safe Practice:** As this Micro-teaching technique is performed under simulated conditions, it helps the trainee to overcome any inhibition, anxiety or nervousness.

5. **Teaching 'Models':** The live demonstration or the film viewed by the trainee on the particular skill, provide 'model' as guide, which the trainee to follow the same and gradually develop his own style.

Advantages of Micro Teaching:

Various researchers have advocated micro-teaching strategy as a useful training strategy for teacher trainees due to the following reasons:

1. Provides a scope for practising one specific skill at a time.

2. Effective for modification of teacher behaviour.

3. The teacher trainee can focus his attention on clearly defined aspects of behaviour.

4. Lessens the complexities of normal classroom teaching due to the scaled down aspects in teaching.

5. Useful in improving teaching efficiency in pre-service as well as in-service teacher education programmes.

6. Offers individualized training for trainees by giving opportunity for progressing at his own rate, depending on his ability.

7. Can be performed in simulated conditions, thus reducing the anxiety factor for the trainee.

8. The patterns of classroom interaction and communication between teacher and pupil can be objectively studied.

9. Allows for various strategies of immediate feedback for better preparation for re-teach and improvement

10. Helps in developing self-confidence in the trainees.

Limitations:

In spite of the advantages that are listed above, the technique of micro-teaching is not without limitations. These can be listed as follows:

1. Teacher educators need to undergo special training in micro-teaching before helping trainees to practice them.

2. There is administrative difficulty as no school will allow only five to ten pupils sent for practising micro lesson.

3. Sufficient literature on micro-teaching is not yet available in all languages.

4. Micro-teaching is not suitable for all subjects and all topics

5. Teaching cannot be practically broken down into sub-skills and these specific skills cannot be practiced in isolation as they are combined and inter-twined skills projected while teaching.

6. Teaching is not a conglomeration or summation of specific skills.

7. When done in simulated conditions, micro-teaching has its own disadvantages, as peer group trainees cannot effectively play the role of school pupils.

8. As it is conducted under controlled environment, it is totally different from real classroom situations.

9. Micro-teaching technique applies only to demonstrable, observable skills and not to skills such as decision-making, preparing audio-visual aids, maintaining students' records, etc.

'Check Your Progress' - 3

1. What are the three phases of the process of micro-teaching?

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2. How does a trainee acquire the knowledge of the micro-skill?

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3. Why is micro-teaching referred to as micro-simulation?

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4. What steps comprise the steps of the cycle of micro-teaching?

2.5   Let Us Sum Up

- The sub-skills of the complex skill of teaching are called the micro-skills of teaching.

- The 'safe practice' technique that enables a teacher-trainee to gain confidence by mastering individual skills had its origin in fields like medicine, defense and law.

- Micro-teaching is 'scaled-clown teaching encounter' that helps in practising specific instructional micro-skills.

- The aspects of 'scaling-down' are with reference to the concept (very little), teaching time (5-7 minutes), number of skills (one at a time), number of students (5-10).

- The concept of micro-teaching implies a controlled practice in a simplified setting with the focus on a specific skill.

- The practice of micro-teaching helps the pre-service trainee by putting him/her at ease during teaching, as the sub-skills mastered individually and integrated, helps in gaining confidence to face students.

- It helps the in-service teachers to confidently impart new information and ideas in their concerned subject, making them competent and capable enough to face the challenges of classroom teaching.

- The sub-skills of teaching that are essential in a teacher, irrespective of the subject, are called the 'core teaching skills'.

- The three phases of micro-teaching process according to J. C. Cliff and others are: The knowledge acquisition phase
  the skill acquisition phase
  The skill transfer phase

- The knowledge acquisition phase provides a model by way of an expert giving a demonstration, videotape showing the demonstration of the skill or just some reading material regarding the particular skill.

- In the skill acquisition phase, the practitioner manipulates the model in order to practice the individual skill.

- Micro-teaching is also called 'micro simulation' because the practice setting is simulated with the peer group individuals among the practitioners, acting as students.

- The cycle of micro-teaching consists of six steps. They are - Plan - Teach - Feedback - Re-plan - Re-teach - Re-feedback.

- In the third phase of the micro-teaching i.e., the skill transfer phase, the practitioner faces a larger group for a longer duration and deals with a larger content.

- In this phase, there is also an integration of two or more micro-skills, which when practiced two or three times helps in the skill transfer from micro to macro teaching in real classrooms.

2.6 Answers to 'Check Your Progress'

'Check Your Progress' -1

1. The components of skills of teaching are called micro-skills

2. This strategy has been adopted from the fields of law, medicine and training of pilots.

'Check Your Progress' - 2

1. As the micro-skills of teaching are practiced repeatedly till they are mastered, it helps the pre-service teacher trainee to integrate them in the classroom teaching

2. It helps the in-service teacher in facing the challenges of teaching with confidence and competence.

'Check Your Progress' - 3

1. The three phases of the process of micro-teaching are

    a) Knowledge acquisition phase

b) Skill acquisition phase

c) Skill transfer phase

2. The trainee acquires the knowledge of the micro skills through

   a) Reading material

   b) Live demonstration by an expert teacher

   c) Videotape showing the demonstration by a model

3. In the micro-teaching setting, instead of real students, the practitioner has his/her own peer group trainees as the students & so it is also called 'micro simulation'

4. Plan - Teach - Feedback - Re-plan - Re-teach - Re-feedback

2.7   Unit - End Exercises

1. What is meant by micro-skills of teaching? Explain the concept and importance of the same.

2. Explain the process of the acquisition of the micro-skills. How does this help the pre-service as well as the in-service teachers?

2.8   References

1. Agarwal J. C, *Principles, Methods and Techniques of Teaching*, Vikas Publishing House Private Limited.

2. Agarwal J. C, *Essentials of Educational Technology: Teaching, Learning, Innovations in Education*, Vikas Publishing House Private Limited, 1995

3. Myageri C. G, *Textbook of Educational Technology*, Vidhya Nidhi Prakashan, Gadag, 1994.

4. Bhatia R. L. and Ahuja B. N., *Educational Technology*, Surjeeth Publications, Delhi, 1994.

5. Grewal S S, *Teacher Effectiveness*, Prakash Brothers, Jalandhar, 1988.

UNIT 3 □ MICRO SKILLS-DESCRIPTION AND COMPONENTS

Structure

3.1   Introduction

In Unit 2 we have discussed the meaning of Micro-skills of Teaching, its importance and the process through the technique of Micro-teaching. In this Unit, we will be discussing a few specific skills, their meaning, components, the principles underlying and their development.

The materials required for implementing the process can be listed as follows:

- Video tape of the particular skill or a handbook containing the detailed description; components of the skill

- Observation schedule for the supervisor and also for the peer group trainees

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3.2   Objectives

After studying this unit, you will be able to:

- List out the micro skills in the teaching task.
- Identify the components of the skill of introducing a lesson.
- Explain the desirable behaviours in the skill of introducing a lesson.
- Explain the undesirable behaviours in the skill of introducing a lesson.
- Explain the desirable behaviours in the skill of explaining.
- Explain the undesirable behaviours in the skill of explaining.
- Describe the components of the skill of using the blackboard.
- Recognize the importance of the skill of stimulus variation.
- Describe the skill of recognizing attending behaviour.
- Explain the skill of achieving closure with reference to the components of the skill.

3.3   Skill of Introducing a Lesson

You are experienced teachers, who will be used to the protocol of introducing a lesson before actually getting to teach the same. Now, take the case of a teacher who does this by himself or herself, i.e., introducing the lesson by uttering a few introductory statements and then starting to teach the lesson. Consider another instance where another teacher introduces the topic by getting the students involved in it, asking them a few questions, to understand how much they know about it and then finding out where they stand with reference to the topic. This also gets them interested in the topic by enticing their curiosity to know more about it. After this, the teacher starts teaching the lesson. I am sure you would agree that the second illustration is a more effective way of introducing the lesson, as the students are ready to take what new information is going to be imparted.

This Skill of Introducing a lesson can be described with reference to the components within, which are as follows:

The two desirable behaviours are as follows:

    i) Using previous knowledge

    ii) Using appropriate devices

The two undesirable behaviours are as follows:

    i) Lacking in Continuity

    ii) Uttering irrelevant statements or questions

Let us now go into the details of each of the behaviour.

Desirable Behaviour

i) Using previous knowledge: Any new information given, certainly finds a foundation in the mind of the receiving learner. It is the teacher who has to gauge what previous knowledge the learner possesses with reference to the present knowledge given. The new knowledge when relevantly linked with the previous knowledge finds continuity and the old and new knowledge gets restructured to form the previous knowledge for the next lesson on the same topic. Thus, using the previous knowledge of the learners while introducing the new lesson helps in bringing the relevant previous knowledge to the conscious level of the learner.

Previous knowledge of the learners can be elicited in many ways. You may refer to what they had learnt in the previous classes, or may find out what they know about the current topics in connection with the new lesson. You may also create situations and refer to the relevant knowledge.

ii) **Using appropriate devices:** The technique used to introduce a lesson is called the device. Devices can be of various kinds like:

- Giving examples
- Asking questions
- Narrating / Describing
- Telling a story
- Dramatisation
- Using Audio-Visual aids
- Demonstration.

The selection of devices depends on its relevance to the topic. While selecting the device, the criteria with reference to the learners, to be borne in mind are:

- Their interest
- The age group
- The grade level
- The maturity level

Undesirable Behaviour:

i) **Lack in continuity:** While introducing a lesson, you have to bear in mind that the statements uttered have a sequence in the ideas or information given. One statement should

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logically lead to another and so on and so forth, so that there is total relation in the series of statements uttered.

ii) Uttering irrelevant statements /questions: While introducing a lesson, care should be taken to see that the statements uttered or the questions asked are in relation to the topic of the lesson. Unless and until this is taken care of, the statements uttered, though sequential, will only confuse the students.

'Check Your Progress' -1

1. What are the desirable behaviours with reference to the Skill of Introducing a lesson?

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2. What are the undesirable behaviours with reference to the Skill of Introducing a lesson?

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3. What is a 'device' with reference to the Skill of Introducing a lesson?

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4. Give two examples of 'devices'.

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5. What are the criteria to be borne in mind while selecting 'devices'?

3.4   Skill of Explaining

Explaining, generally, is the description of 'what' something is, or giving reasons as to 'how' an event happened or 'why' it happened. It could also be with reference to an action, condition or phenomenon. This is done to bring clarity about the same. Explanation in a class is the statements made by the teacher to bring about clarity of the concept taught, the idea or information given; so as to make the students understand it well. Such an explanation is effective.

Now that you know what 'explaining' is, let us see how this can be effectively practised in the classroom teaching scenario. Here too, as in the Skill of Introducing, there are techniques used to explain effectively. Some of these are:

- Question - Answer

- Using Audio - Visual aids

- Using Inter-related statements

Here also you would find both desirable and undesirable behaviours. The desirable behaviours are:

- Using explaining links

- Using beginning and concluding statements

- Testing pupils' understanding

The undesirable behaviours are:

- Giving irrelevant statements

- Lacking continuity in statements

- Using inappropriate vocabulary

- Lacking in fluency

Let us now see each component of the desirable and undesirable behaviours in more detail.

Desirable Behaviour:

The desirable behaviours to be followed while practising the Skill of Explaining are:

1. Using explaining links: This is nothing but the utterance of statements using linking words or phrases during explanation. This brings about continuity in the series of

statements uttered. Examples of linking words are - 'and', 'then', 'later', 'gradually', 'therefore', etc. Such words bring about the sequence of events in a phenomenon, process or action. Examples of linking phrases are - 'whenever', as a result', as a consequence', etc.

2. Using beginning and concluding statements: Whenever something has to be explained, it is essential to start the explanation with a relevant beginning statement. This prepares the minds of the students as to what would follow. Having explained the idea or principle or concept, in order to conclude it, the teacher has to do so by consolidating the points explained. These statements comprise the concluding statements.

3. Testing pupils' understanding: As the purpose of explanation is to bring about understanding in the students about the concept, principle or event explained, the testing of this becomes a very essential part of any explanation. This can be done by putting questions at every point of interval after every sub-concept explained or after every key point explained.

Undesirable Behaviour:

The undesirable behaviours to be followed while practising the skill of explaining are:

1. Giving irrelevant statements: As the term indicates, 'irrelevant' statements not related with the topic or idea, have to be avoided. Such statements will only confuse the students and make the explanation ineffective.

2. Lacking continuity in statements: While explaining, if the statements uttered are not logically related to each other, it creates an obstacle in the sequential flow of statements and the idea explained suffers a setback in the understanding of the same.

3. Using inappropriate vocabulary: Words are the basic units of the vehicle of communication. As such, you will agree that if these basic units are not properly and judiciously used in communication, the whole process of communication becomes ineffective. Bearing this in mind, it is very essential for the teacher to use words that are suitable to the age level of the students. A major aspect of concern is the use of simple words that are easily understood. The teacher is not required to exhibit his/her proficiency in the use of high-flown language using technical jargon; but a simple language using simple words.

4. Lacking in fluency: A free flow of words and sentences, without any break or uneasy pauses in the middle of a sentence is what fluency means. As such, there is a break caused by a lack of free flow of thought into words. This should be avoided during explanation.

As you have now read the components of the skill of explanation, you can now see for yourself how much you have understood them by checking it yourself.

'Check Your Progress' - 2

1. What do you mean by 'explanation'?

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2. What are 'devices'? Give two examples of the same.

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3. What are the desirable behaviours of the Skill of Explanation?

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4. What are the undesirable behaviours of the Skill of Explanation?

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5. Give three examples each of linking words and linking phrases.

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6. What do you mean by fluency?

3.5 Skill of Questioning

The Skill of Questioning is a very important skill that a teacher had to master. I trust you will certainly endorse this view because questioning, as you know is a part and parcel of teaching. You need to ask questions at all stages of a lesson. When introducing a lesson, you use this device to gauge the previous knowledge of the learners. While doing the lesson, you ask questions to develop the lesson and after explaining every topic you ask questions to ascertain comprehension. Questions are also framed for achieving closure of the lesson in order to develop the summary of the total instruction. Again while giving the Home Assignment, you frame questions for the students to answer the same or perform some activity. Apart from using questions at every stage of the lesson, eventually for the tests and examinations too, you need to set the question paper. All these go to prove how important the Skill of Questioning is for a teacher to master the same.

Having seen the importance of the Skill of Questioning, let us now see the components within this skill.

1. Structure of questions.

2. Delivery and distribution of questions.

3. Different levels of questions

Let us now deal with the various aspects of each component.

1. Structure: The criteria for a well structured question are-

a) Grammatical correctness

b) Conciseness

c) Relevance

d) Specificity

e) Avoiding the use of leading questions

Let us now discuss each criterion one by one in detail.

a) Grammatical correctness: The correctness of the order of words in the question is the consideration here. If the question uttered is not grammatically correct, it has no clarity and hence students fail to understand it. Due to the confusion in their minds, they are unable to respond, as the question asked is not very meaningful. It also results in waste of time.

b) Conciseness: This refers to the optimum length of the question, which is generally short, with no unnecessary words included. The question should be direct and straightforward.

c) Relevance: A very important point of consideration with reference to the skill of questioning is the relevance of the question asked. This means that it should be with reference to the topic dealt with. The question should also contain only terms that have been explained earlier, if not, even such a question is irrelevant.

(d) Specificity: This means that the question asked should be such that it will fetch only one answer that is correct. If the question asked is general in nature, it may get more than one response that could be accepted as correct, and this leads to a bit of confusion and loss of time. Moreover, the question asked should be related to only one idea.

e) Avoid the use of leading questions: Questions directly reflecting the answers or those which themselves contain the answer should be avoided.

2. Delivery and distribution of questions: After the structuring of the questions, the way these questions are delivered and distributed is now discussed. The criteria to be considered here are as follows:

1. Speed of asking questions
2. Voice
3. Pause
4. Distribution

Let us now discuss each criterion one by one in detail.

a) Speed of asking questions: The teacher should ask the question neither too slowly nor too fast. Both pave the way for ineffectiveness as students fail to comprehend.

b) Voice: This refers to the audibility and the modulation with which the question is put forth. Questions should be asked in such a way that every student in the class hears it.

c) Pause: After delivering the question in the required speed, a pause should be given for the students to understand the question, before expecting a response from them.

d) Distribution: This refers to how the question asked is distributed among the students. It should be distributed among the volunteers and non-volunteers. The same question asked could be redirected to other students to increase pupil participation. The proper distribution of questions helps in securing and sustaining pupil's attention and active involvement in the teaching- learning process.

3. Different levels of Questions: Questions can be classified into three levels, namely, Lower Order, Middle Order and Higher Order.

The lower order questions include knowledge level, middle order includes understanding and application levels of thinking and the higher order questions include analysis, synthesis and evaluation levels of thinking.

'Check Your Progress' - 3

1. At what stages of the lesson are questioning generally used?

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2. What are the components of the skill of questioning?

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3. What are the criteria for a well structured question?

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4. What do you mean by 'conciseness'?

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5. What are the three levels of questions?

3.6 Skill of Illustrating With Examples

As teachers, you would have come across situations in your classrooms wherein you found that in order to explain an abstract concept/idea/principle to your students, you had to naturally resort to giving examples. This is precisely the skill of illustrating with examples that a teacher has to acquire and master so as to bring about effective teaching.

Now what exactly is an example? An example is an observation or situation of occurrence or a concept or generalization. The skill of illustrating with examples can be defined as the selection and presentation of examples relevant to the concept/idea/principle that has to be taught to the pupils.

The components of the skill are:

1) Formulating simple examples

2) Formulating examples relevant to the concept/idea/principle

3) Formulating interesting examples

4) Using appropriate media for presenting examples

5) Using appropriate approach for presenting examples

Let us now discuss each component one by one:

1) Formulating simple examples: Simple examples are those that the students are familiar with in their day-to-day life and as such it is the previous knowledge they possess. They might have acquired this either by experience or by reading books or listening to others. The teacher should be well aware of the age, grade level and also the background of the pupils in order to give simple examples. The proof that the examples are simple is the correct responses of the students when the teacher questions them.

2) Formulating relevant examples: The examples formulated must be related to the concept being explained. This is what relevancy means. Unless the examples given are relevant, the concept or rule explained will not result in the clear understanding of the same.

3) Formulating interesting examples: An interesting example is one which arouses the curiosity of the pupils, and also sustains it. While giving such examples, the teacher has to bear in mind the chronological as well as mental age of the pupils so as to suit their level of interest.

4) Using appropriate media for presenting examples: The media here refers to the different types of teaching aids that can be utilized. These could be auditory, visual or

tactile. Appropriateness refers to the criteria of age, grade, maturity of the pupils and the topic taught. The media used could be verbal or non-verbal. Visual examples are objects, models, maps, charts, diagrams, etc. Auditory examples are telling stories, explaining events, relating incidents, etc., Tactile examples involve presenting actual objects like real flowers, leaves, etc., while teaching Botany so as to feel the texture.

5) Using appropriate approach for presenting examples: While teaching, the teacher generally uses two approaches, namely, the Inductive and Deductive. In the Inductive approach, the rule/concept/ generalization is derived after giving a number of examples. This approach follows the maxim of going from known to unknown. In the deductive method, the approach is to state the rule/concept/generalization at first and then give examples for illustrating them. This goes from unknown to known.

In developing the skill of illustrating with examples, a combined approach is followed. The inductive approach is followed while clarifying the concept or rule. The teacher gives examples, which form part of the pupil's previous knowledge. Following these examples, the concept or rule is stated involving the pupils, thus deriving the same from the pupil's previous knowledge or experience. Then, in order to ascertain whether they have understood the rule/concept, the teacher asks them to give their own examples related to the concept/ rule. Thus, a three-stage approach is followed in the Inductive - Deductive approach of illustrating with examples.

'Check Your Progress' - 4

1. What is an example?

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2. Define the Skill of Illustrating with Examples.

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3. What are the components of the skill? Illustrate them with examples.

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4.   What are simple examples?

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5.   What is an interesting example?

----

6.   What are the different kinds of media used for presenting examples?

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7.   What is the Inductive Approach?

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8.   What is the Deductive Approach?

3.7   Skill of Using Blackboard

The Blackboard is the most often used visual aid by a teacher. Now, let us see what factors are to be considered by the teacher for effective use of the same.

1) Legibility of Handwriting

2) Neatness in Blackboard work

3) Appropriateness of written work on the Blackboard

Let us now go into the details of each component mentioned above.

1. Legibility of Handwriting: To make handwriting legible, certain points have to be given due consideration. These are the following-

    a) Letters to be distinct.

    b) Adequate spacing between two letters and two words.

    c) Slantness of letters closest to the vertical.

    d) Size of the letters big enough to be read by the students at the far end.

    e) Capital letters just bigger than the small letters.

    f) All capital letters of same size and all small letters of the same size.

2. Neatness in Blackboard work: The subcomponents of this component of the skill of using Blackboard are as follows:

    a) Straightness of the line wherein the written lines should be horizontal and parallel to the base of the Blackboard.

    b) Spacing between lines to be adequate.

    c) Avoiding over-writing so as to avoid untidiness in the Blackboard work.

    d) Focusing the relevant matter by retaining the same and erasing the irrelevant and unrelated matter so as to help pupils concentrate on the matter under focus.

3. Appropriateness of written work on the Blackboard: This component of the skill of Blackboard work is realized by keeping in mind the following considerations:

    a) Continuity in the points: By this we mean that a point should be logically related to the previous one.

    b) Brevity and simplicity: This is most relevant in the development of the Blackboard summary at the end of the lesson, when only the main points covering the whole lesson are written. The points are to be written in simple language and in a brief manner so that pupils easily recall the whole lesson.

    c) Drawing attention and focusing: While writing the Blackboard summary, important points/ terms/definitions are to be focused by underlining or using a colored chalk. This helps the pupils recall them easily.

'Check Your Progress' - 5

1. List the three components of the Skill of using Blackboard.

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2. How does the teacher draw attention to the main points while writing on the Blackboard?

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3. What do you mean by continuity in points?

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4. In which part of the lesson is the aspect of Brevity and Simplicity to be resorted to?

3.8   Skill of Stimulus Variation

Stimulus is something or anything that an individual responds to. So far as a classroom is concerned, the teacher is the main source of stimuli while imparting teaching. Now let us see to what these stimuli connected with the teacher are.

Imagine a teacher explaining something and in order to make the same effective, he/ she moves to the Blackboard to write something no\ yes towards the students to ask questions in order to ascertain comprehension. The teacher uses various gestures, using hands, head and facial expressions. Such behaviours that draw and sustain pupils' attention keep changing as per the requirements of the situations. These changing movements and gestures of the teacher while teaching comprise the skill of Stimulus Variation.

Let us now see the components under this skill. The details of the various behaviours in this skill as follows:

1. Movement: The movements of the teacher should be such that the attention of the pupils is maintained at all times.

2. Gestures: These are made by the movement of the parts of the body like the head, hands and facial expressions. These can be combined with oral message too. Here too, the purpose is to direct the attention of the pupils while emphasizing something important.

3. Change in Speech Pattern: This is also referred to as the voice modulation. The variation in the voice shows the sudden change in stimulus and thus attracts the pupils' attention. The voice modulation expresses the anger, appreciation, disagreement, agreement, etc., that catches the attention of the students who respond accordingly.

4. Focusing: This could be of three types - Verbal, Gestural and Verbal-Gestural. As the terms indicate, Verbal focusing is the mode of drawing the pupils' attention by words/ phrases like - "Look at this diagram", etc. Gestural focusing is the way in which the teacher draws the attention of the pupils' by gestures using head, hand and body movements, like pointing to the parts of an organ on the chart. Verbal-Gestural focusing involves words or phrases accompanied by gestures in focusing a particular item, like drawing of a diagram on the Blackboard, accompanied by the description or explanation of the same.

5. Change in interaction styles: The types of interaction that take place in a classroom is between teacher-student, student-teacher and student-student. By changing these interaction styles, a student's attention can be kept alive throughout the lesson.

6. Pausing: Pauses are a must during teaching, for, when the teacher is continuously talking or asking questions, students don't get a chance to respond. Pauses are also essential when students' attention is to be secured. Imagine a classroom where few students are talking and the teacher is not heard. But, when the teacher stops talking, students become fully aware of the silence created, thus resulting in gaining their attention towards the teacher.

7. Change of Oral-Visual Media: Continuing to give oral information from the beginning of a period till the end is quite boring and does not sustain the attention of the students towards the lesson taught. Therefore changing the medium from oral to visual and vice-versa would create interest in the students and also help to sustain the same. The visual medium can include demonstration, experiments, filmstrips, specimens, objects, charts, models, etc. These successfully supplement the oral information.

'Check Your Progress' - 6

1. How can you define the Skill of Stimulus Variation?

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2. What are gestures?

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3. What are the three types of focusing?

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4. What do you mean by Gestural focusing?

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5. Name the three types of interaction styles.

3.9   Skill of Recognising Attending Behaviour

You as a teacher will certainly agree that unless learning takes place, teaching is not actually performed. In order to learn what you teach, pupils should pay attention to your teaching. Now how do you recognize that they are attending? What are the behavioral aspects of the pupils that help you to recognize that they are attending? These, when recognized by the teacher enables one to conclude that the teacher has acquired the skill

of recognizing Attending Behaviour. Similarly, the teacher also has to note the Non- Attending Behaviours too. Now let us see what these Attending Behaviours and Non-Attending Behaviours are.

Attending Behaviours: The following behaviours of pupils go to show that they are attentive:

a) Alertness

b) Listening with concentration

c) Thinking and asking questions

d) Pointing out mistakes

Now, how does a teacher recognize these behaviours? Alertness is recognized by the erect posture, with eyes fixed on the teacher. Concentration is shown by the absence of fidgeting or any activity that shows distraction.

Non-Attending Behaviours: The following behaviours of pupils go to show that they are non-attentive:

a) Yawning

b) Chewing something

c) Talking

d) Giggling

e) Making faces

f) Moving restlessly

g) Complaining

h) Having a bored expression

i) Late in submitting assignments

j) Untidy work

k) Neglecting the Home Work

I) Looking out of the class

m) Asking irrelevant/nonsense questions

n) Disturbing the others

Thus the skill of recognising Attending Behaviour can be defined as the observation and diagnosis of the verbal and non-verbal cues of the pupils that help the teacher to gauge their degree of attentiveness in the classroom.

Now having learnt the Attending and Non-Attending Behaviours of the pupils, you as a teacher will have to know how you would react to these to bring about effectiveness in teaching learning. Sneha Joshi classifies such reactions into five groups, which can be called as the Five Components of the skill of recognising Attending Behaviour. These are:

1. Rewarding Attending Behaviour

2. Giving directions

3. Asking questions

4. Accepting feelings and / or ideas of the pupils

5. Using silence and non-verbal excuse

Let us now go into the details of these components one by one:

1. Rewarding Attending Behaviour : of the pupils can be done by using verbal reinforces like "good",' 'well-said", "you're right", etc.

2. Give directions : like "Look at the Blackboard", "Stop talking", "Do not write while I am explaining", etc

3. Asking questions at intervals while teaching, so that students' attention can be ascertained. Getting the correct answers from the pupils is the feedback for the teacher that they have paid attention to the teaching.

4. Accepting feelings and/or ideas of pupils : When the teacher finds a pupil putting his head down on the desk or holding his head with his hands, he may ask the reason for it and if he comes to know that the pupil has a head- ache or some such difficulty he could help him by making him comfortable. This shows that he has accepted the feelings of the pupil. Similarly, in accepting ideas of the students, when he adds some information to that which has already given by the teacher, the teacher shows that he has appreciated his attentiveness.

5. Using silence and non-verbal excues: Imagine a classroom situation when almost all pupils are engrossed in the explanation of a difficult concept by the teacher. Only one or two students are secretly murmuring and this draws the teacher's attention. The teacher has to continue with the explanation for the sake of the majority who are eager listeners, but should also pull up the inattentive ones. Therefore he resorts to a short pause (silence) and

glares at them. This is sufficient for them to direct their attention towards the teacher. The teacher thus achieves this without disturbing the whole class.

'Check Your Progress' - 7

1. Give two examples of Attending Behaviour.

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2. How can you recognize alertness in students?

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3. Define the skill of recognising Attending Behaviour.

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4. List out the five components of the skill of recognising Attending Behaviour.

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5. What is the significance of the teacher accepting the pupils' idea?

3.10   Skill of Achieving Closure

You have learnt that the purpose of mastering the Skill of Introducing a Lesson is to generate interest in the pupils towards the topic to be taught. Now, after having taught the lesson, you need to conclude it, isn't it? What is the purpose of this? How do you do this?

Before concluding a lesson, you, as a teacher would need to ascertain whether the objectives before teaching a lesson have been realized after the teaching. In your lesson plan, you had realized the necessity of getting to know that as you proceed with the lesson, here and there, at intervals, you need to do recapitulation so as to make sure that the teaching-learning was effective. Now when you are at the end of the lesson, you will surely want to evaluate your teaching as well as the pupils' understanding, and how successfully they have synthesized all that they have learnt into a meaningful whole.

The process of achieving closure to the lesson realizes all the above objectives. Let us now see what the components of the Skill of Achieving Closure are.

The components of the Skill of Achieving Closure are:

1) Consolidation of major points

2) Providing opportunities to pupils to apply present knowledge to various new situations

3) Linking past knowledge to present knowledge

4) Linking present knowledge to future learning

Let us now discuss one after the other in detail:

1. Consolidation of major points: During the teaching of a lesson, the teacher would have ascertained at intervals the effective assimilation of the points explained. Now towards the end of the lesson, it has to be made sure that the pupils have successfully synthesized all that they have learnt into a meaningful whole. If there are any gaps in the knowledge the teacher helps in filling in the same.

Now, how does the teacher get to know this? The usual approach to this is questioning. The teacher puts forth questions that are sequential in order of the taught points, and the pupils' response to these gives the teacher the knowledge of the effectiveness of teaching and the successful grasping of the points taught. It is also advisable to write these answers on the Blackboard, as a summary, as the questions asked are logically linked so as to get responses that are conveniently developed as the Blackboard summary.

2. Providing opportunities of pupils to apply the present knowledge to various new situations: This can be done by testing the understanding of students so that the pupils may use it in new situations. An apt example of this could be given from an English class wherein the teacher has given the meaning of strange words, use them in sentences and then ask pupils to frame sentences of their own so that it shows that they have understood their meanings well enough to use them in other situations. The testing can be

done either orally or in a written manner. Another example that could be sighted is after having taught the properties of a magnet, the teacher can then ask pupils to give instances where this is applied in daily life situation and the pupils may sight examples of the refrigerator door, or the closing of a hand bag; etc. By these responses of the pupils, the teacher can conclude the successful understanding of the topic and effective application of the same in unfamiliar situations.

3. Linking past knowledge with present knowledge: For a teacher, the present knowledge refers to the lesson in progress or just concluded. The past knowledge may refer to the immediately preceding lesson or the previous knowledge relevant to the present lesson that the pupils already possess. Now since the newly acquired knowledge has to be properly integrated into the previous knowledge, there should be links and these have to be perceived by the pupils. In this step, the teacher does exactly this, ie., to see that the pupils successfully perceive the link and integrate the present knowledge with the previous knowledge. The approach used by the teacher may be illustrated with an example. Consider an instance where the teacher had just done with teaching the parts of an animal cell. The previous class had been regarding the parts of a plant cell. Now, since there are similarities and differences between the two, the teacher could ask how the structure of the animal cell differs from that of a plant cell and the features that are similar. This prompts the pupils to compare and contrast the two and thus naturally a link is established between the present knowledge and previous knowledge.

4. Linking present knowledge with future learning: You have-already learnt that the present knowledge becomes the previous knowledge for the next lesson. Now as knowledge acquisition is a continuous process, it certainly has a link with future learning too. Generally by future learning we mean the application of the present knowledge in future situations. The major goal of education is application of the knowledge acquired and this is done by giving some home assignment. This should be such that it requires the pupil to apply the acquired knowledge in higher mental processes rather than just recalling the present-knowledge.

Therefore, the Home Assignment given should provide opportunities for the pupils to solve problems, find solutions, prepare charts, models etc., so that the acquired knowledge is applied in performing such activities.

Having seen that the components of the Skill of Achieving Closure almost summarises a lesson, you would have realized how important it is for a teacher to master this very important skill.

'Check Your Progress' - 8

1. What is the objective of achieving closure?

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2. What are the components of the Skill of Achieving Closure?

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3. What is the common approach used by the teacher to ascertain whether students have synthesized the learnt matter?

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4. How can the teacher test the ability of the pupils to apply the present knowledge?

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5. Give an example of pupils' application of the present knowledge in daily life situation.

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6. How can the teacher provide opportunities for the pupils to link the present knowledge with future learning?

3.11 Let Us Sum Up

The technique of practising the micro-skills of teaching originated it the Stanford University in 1961. The materials required for implementing the process are a videotape of the particular skill or a handbook containing the detailed description of the skill and the components of the skill as well as an observation schedule for the supervisor. The desirable behavioral components of the skill of introducing a lesson are using previous knowledge, using appropriate devices. The undesirable behavioral components are lacking in continuity, using irrelevant statements.

Effective explanation is achieved when the skill of explanation is mastered. The desirable behavioral components of this skill are using explaining links, using beginning and concluding statements, testing pupils' understanding. The undesirable components are giving irrelevant statements, lacking continuity in statements, using inappropriate vocabulary and lacking in fluency.

Questions play a very important role in any lesson for it is used from the beginning to the end of a lesson for the purpose of testing previous knowledge, introducing a lesson, developing a lesson, ascertaining comprehension and achieving closure. The components of the skill of questioning are structure of questions, delivery and distribution of questions and levels of questions.

There are three levels of questions-lower order questions that include knowledge level. Middle order questions that include understanding and application levels. Higher order questions that include analysis, synthesis and evaluation levels. The Skill of Illustrating with examples have the components of- formulating simple, relevant and interesting examples and using appropriate media and approach for the same.

The Skill of Using the Blackboard refers to legibility of writing, neatness and appropriateness of written work on the Blackboard. The various movements, gestures and range of the tone used by the teacher as the situation demands is referred to as the Skill of Stimulus Variation. Unless the teacher is sure that pupils are paying attention to the teaching, no teaching takes place. The behaviour of the pupils show that they are attentive or inattentive comprises the Skill of Recognising Attentive Behaviour.

The Skill of Achieving Closure is an important skill that helps the teacher to ascertain the understanding and application of the learnt matter, by applying it in new situations.

3.12   Answers to 'Check Your Progress'

'Check Your Progress' - 1

1.   Using previous knowledge, using appropriate devices.

2.   Lack in continuity, uttering irrelevant statements.

3.   The technique used to introduce a lesson.

4.   Giving examples, asking questions. (Or any two mentioned therein).

5.   Students' interest, age group, grade level and maturity level.

'Check Your Progress' - 2

1.   Statements made by the teacher to bring about the clarity of the concept taught, the idea/information given so as to make the students understand it well.

2.   Techniques used to explain effectively like questions and answers, using audio-visual aids.

3.   Using explaining links, using beginning and concluding statements, testing pupils' understandings.

4.   Giving irrelevant statements, lacking continuity in statements, using inappropriate vocabulary and lacking in fluency.

5.   'and', 'then', 'later' - words, 'as a result', 'in order that', 'whenever' - phrases

6.   A free flow of words and sentences, without any abrupt break or unnecessary pauses in the middle of a sentence is what fluency mean.

'Check Your Progress' - 3

1.   When introducing a lesson, when developing a lesson, to ascertain comprehension, to develop the summary of the total instruction and while giving home assignment.

2.   Structure of questions, delivery and distribution of questions, levels of questions.

3.   Grammatical correctness, consciences, relevance, specificity.

4.   Optimum length of the question with no unnecessary words included.

5.   Lower order, Middle order and Higher order questions.

'Check Your Progress' - 4

1.   An observation/situation of occurrence of a concept or generalization.

2. Selection and presentation of examples relevant to the concept / idea / generalization to be taught.

3. Formulating simple examples, formulating examples relevant to the concept, formulating interesting examples, using appropriate media for presenting the examples, using appropriate approach for presenting.

4. Those that the pupils are familiar with in their day-to-day life or those acquired by reading or listening.

5. That which arouses curiosity in the pupil.

6. Auditory, Visual, Tactile, Verbal, Non verbal

7. From examples to generalisation, known to unknown, specific to general.

8. Generalisation to specific, unknown to known.

'Check Your Progress' - 5

1. (a) Legibility of Handwriting, (b) Neatness in Blackboard work, (c) Appropriateness of written work on the Blackboard.

2. By focusing the main points which are done either by underlining of using a colored chalk.

3. Points that are logically related to the preceding and following ones.

4. In the development of the Blackboard summary at the end of the lesson when only the main points covering the whole lesson are written.

'Check Your Progress' - 6

1. Changing movements and gestures of the teacher while teaching.

2. Gestures are movements made by the parts of the body 1ike head and hands and facial expressions.

3. Verbal, Gestural and Verbal - Gestural

4. The way in which the teacher draws the attention of the pupils using movements of the parts of the body like head and hands.

5. Teacher-Student, Student-Student, Student-Teacher.

'Check Your Progress' - 7

1. Alertness, Asking questions.

2. By their erect posture and eyes fixed on the teacher.

3. Observation and diagnosis of the verbal and non-verbal cues of the pupils that helps the teacher to gauge the degree of alertness in the classroom.

4. Rewarding attending behaviour, giving direction, asking questions, Accepting feelings and/or ideas of pupils, Using silence and non-verbal cues.

5. Teacher shows that he has appreciated the pupils' attentiveness.

'Check Your Progress'- 8

1. To ascertain whether pupils have comprehended what was taught and are successful in synthesizing all they learnt into a meaningful whole.

2. Consolidation of major points by the teacher, providing opportunities for pupils to apply present knowledge to new situations, linking present knowledge to previous knowledge, linking present knowledge to future learning.

3. Questioning.

4. Oral and written tests.

5. Identifying the application of the attractive property of magnet in refrigerators and handbags.

6. By giving Home Assignments like projects, solving problems, preparing charts and models.

3.13   Unit - End Exercises

1. What are Micro-skills of Teaching? Explain the skill of introducing a lesson.

2. What do you mean by Stimulus Variation as far as classroom teaching is concerned? Explain the components of the Skill of Stimulus Variation.

3. Describe the Skill of Questioning. Discuss the importance of questioning in the Teaching Process.

3.14   References

1. Lalitha. M. S. and Passi. B. K - *Micro-teaching*

2. Aggarwal. J. C., *Principles, Methods and Techniques of Teaching*

UNIT 4 ☐ MODELS OF TEACHING

Structure

4.1   Introduction

In Unit I we have seen that teaching is a complex task that the teacher should prepare to handle in such a way so as to bring about learning. In this Unit, we shall see how Models of Teaching will help to bring about this effectiveness. For this you will see what the concept of Models of Teaching means and how this has been categorized into families on the basis of the particular objective each family realizes, most importantly the Information processing family, specific Models of which you will be learning in detail. The general components of Model of teaching will be discussed. Apart from this the individual Models of the information Processing family, namely the Concept Attainment Model, the Inductive Thinking Model, the Inquiry Training Model and the Memorisation Model. These being very important from a teacher's point of view, I'm sure that you will really be interested in getting to know more about these so as to improve your teaching. So then, let's now go ahead and discuss these at length.

Education is goal oriented; the broad goal being that of developing the all round personality of the learner. Thus, teaching should bring about in the individual the development of his social, intellectual and emotional development.

Teaching, is an interaction process between the teacher and the taught, needs to be done in an atmosphere that is conducive to facilitate the development of the individual in all spheres as mentioned above. This setting that is developed by the teacher for the achievement of the goals/objectives makes up the 'model' of Teaching. The pattern of teaching activity that the teacher plans in order to make the environment goal achievement oriented is called the Model of Teaching.

It would not be incorrect to say that Models of Teaching are Models of Learning. In the present day learner-centered teaching scenario, teaching is defined as facilitating the learner to learn, and this is what we have seen too, in Unit 1. The teacher plays the role of a facilitator and the outcome of instruction here results in enhancing the abilities of the learner to learn. Models of Teaching, according to Bruce Joyce and Marsha Weil, are to increase the learners' aptitude for learning.

In the following Unit we shall discuss the concept of Models of Teaching and their importance, the components of models in general. We shall also discuss a few models of teaching the knowledge of which, as a teacher is very important to us.

4.2   Objectives

After you have studied this unit, you will be able to:

- Define 'Models of Teaching'.
- Name the families of Models of Teaching.
- Describe the Models under the 'Information Processing' family.
- Identify the general components in a Model.
- Bring out the importance of Models of Teaching.
- Describe a 'Concept Attainment Model'.
- Describe the process of concept attainment through the Concept Attainment Model.
- Describe the 'Inductive Thinking Model'.
- Define' inquiry'.
- Explain the process of inquiry training, using the 'Inquiry Training Model'.
- Describe the 'Memorization Model'.
- Describe the importance of the 'Memorization Model' in retention and recall of information.

4.3   Models of Teaching

4.3.1 Concept

K. P. Pandey interprets a model in three ways in his book, 'Modern concepts of Teaching Behaviour'. Firstly he refers to a model as an ideal quality to be emulated, as in a 'model person'. A second interpretation is that of a representation of an original, like the model of a Taj Mahal. And the third sense in which it is used is a little abstract. It has the interpretation of a 'paradigm'. In this sense, a 'model' is something that has a particular pattern, and the word 'Model' in Models of Teaching takes this meaning.

In the sub-unit 4.1, you have already got to know that a' Model of Teaching' is the pattern of teaching activity that the teacher plans in order to make the environment conducive for achieving the objectives of instruction. Bruce Joyce and Marsha Well have mentioned that according to Dewey, the core process of teaching is the arrangement of environments within which the student can interact. They further explain a Model of Teaching as a "plan or pattern" that can be used "to design face-to-face teaching in classrooms or tutorial settings and to shape instructional materials - including books, films, tapes, computer-mediated programs, and curricula (long term courses of study)". From this definition of Models of Teaching we can conclude that a *Model of Teaching guides in designing an instruction to facilitate students achieve the vicarious objectives.*

'Check Your Progress' - 1

1.What does the word 'model' in the 'Models of Teaching' mean?

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2. What is the purpose of using a Model of Teaching?

4.3.2 Importance

Having come to know what a Model of Teaching is, you will certainly be curious to know its importance from the point of view of a teacher. Bruce Joyce and Marsha Weil assert that the Models of Teaching are really Models of Learning as they help students to acquire information, ideas, skills, values, and ways of thinking and means of expressing

themselves. The most important long-term utility of these Models of Teaching is that they increase the students' capabilities to learn more easily and effectively. They help them to achieve various learning objectives. Researches conducted on socially and economically disadvantaged children have put forth their findings as to how gainful the Models of Teaching are as they have made them more powerful students.

Models of Teaching have helped students memorize information, attain concepts, practice in building hypotheses and using tools to test these hypotheses. They also aid them to extract information and ideas from lectures, to train themselves in athletics, performing arts, mathematical skills, social skills, writing skills, problem solving, increasing creativity, and most of all in planning personal study.

'Check Your Progress' - 2

Complete the following sentences:

1. Models of Teaching help students to acquire and …………, …………, ………...

2. Findings of Researches conducted of socially and economically disadvantaged students show that Models of Teaching have made them …………………........................

3. Models of Teaching, most of all help students in planning ………………….. ....

4.3.3 Components

Bruce Joyce and Marsha Weil describe a 'model' with reference to the components they identify in them. These components as analysed by these authors in their book 'Models of Teaching' are - syntax, the social system, principles of reaction and support system.

The 'syntax' refers to the phases or stages as to how it begins and what the sequence of activities are. These sequences are unique to the specific model.

The 'social system' describes the roles of the students and the teacher, and the relationship between them. The leadership role of the teacher decides the structure of the model. It could be a 'high structured model' (teacher being the centre of activity), 'moderate structured' (activities equally distributed between the teacher and the students), or 'low structured' (student being the centre of activity).

'Principles of reaction' refers to the mode of reaction adopted by the teacher when responding to the learner.

Any Model requires the basic requirements namely the human skills, capacities, and technical facilities. But the 'support system' describes the extra requirements other than these. Taking the case of a learner-centered model the 'support system' here includes the

textbooks, the reference books, films, self-instructional systems and other such requirements.

We have discussed the four components of a Model of Teaching.

'Check Your Progress' - 3

1. Name the four components of Teaching as identified by Bruce Joyce and Marsha Weil.

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2. What is a 'high-structured' Model of Teaching?

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3. What do the component principles of reaction' refer to'?

4.4   Examples of Models

Bruce Joyce and Marsh Weil have grouped Models of Teaching into four families, namely -The Social Family, The Information Processing Family, The Personal Family and The Behavioral System Family. As the Models you are expected to learn come under the Information Processing Model, let us see which are the Models that come under this Family-

- Inductive Thinking Model
- Concept Attainment Model
- Mnemonics (Memorization) Model
- Advance Organizers Model
- Inquiry Training Model
- Synetics Model
- Students' Intellectual Development Model

Of these we shall now discuss one after the other The Concept Attainment Model, The Inductive Thinking Model, The Inquiry Training Model and The Memorization Model.

4.4.1 Concept Attainment Model

A concept attainment method requires the student to learn to classify a set of objects or events. This is similar to the way that scientists categorize or classify objects or events in order to draw generalizations. Thus, it is the identification of the attributes that helps the learner to distinguish the examples of a category, from non-examples.

According to the authors of 'Models of Teaching' Bruce Joyce, Marsh Weil and Emily Cathaun, the Model of Concept Attainment is a Model of Teaching that "requires a student to figure out the attributes of a category that is already formed in another person's mind, by comparing and contrasting examples (called exemplars) that contain the characteristics (called attributes) of the concept, with examples that do not contain those attributes".

The working of the Model is in this manner. In order to teach a concept, the defining attributes of the particular concept have to be made very clear to the learner. The teacher then presents examples and non-examples that are labeled. Students compare the attributes in the positive and negative examples. Listing out the common characteristics in the examples and segregating these items from the non-examples, the students define the concept according to the essential attributes they possess. The purpose of providing negative examples is to help the students to get to know the boundaries of the concept. The teacher then presents unlabeled examples. The students then identify these to ascertain whether they belong to the same category or not. The teacher confirms their findings, names the concept. The definition of the concept is then restated according to the essential attributes. Finally it is the turn of the students to give more examples of the concept.

The model has a moderate structure as the teacher only controls the activities and encourages students to interact more.

Let us know describe the Model in terms of the general components.

Syntax: The sequence of activities is as follows:

- Presenting data for the identification of the concept.
- Presenting examples with 'yes' or 'no' labels on them.
- Comparing the positive and negative attributes of the examples for Framing hypotheses and testing them.
- Naming the concept.
- Defining the concept with reference to its attributes.

- Testing the attainment of concept.

- Identifying other unlabelled examples of 'yes' or 'no' of the concept.

- Pupils giving their own examples

The social system: In the initial stages, while presenting examples and explaining attributes, the teacher has to exercise full control. Students should be able to think freely, formulate the hypotheses and test them in the light of given data. The teacher could guide them in accepting or rejecting hypotheses by prompting them to revise the data.

Principles of reaction: The principles of reaction between the teacher and students may be listed as follows:

- Teacher should be supportive of students' hypotheses.
- Maintain a record of the attributes mentioned by students.
- Direct students' attention to the process of analysis of the concept.
- Encourage and reinforce right analysis.

Support system: The support system required for teaching the Concept Attainment Model is:

- Well thought positive and negative examples to be presented to pupils.

- A Blackboard or tag board to help students to record the description of attributes of the examples.

- A flannel board for the presentation of parts of the definition and explanation of a concept.

'Check Your Progress' - 4

1. Name the four families of Models of Teaching as grouped by Bruce Joyce and Marsha Weil.

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2. Give two examples of Information Processing family Models of Teaching.

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3. What is a basic requirement of the Concept Attainment Model?

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4. What is the purpose of providing negative examples?

4.4.2 Inductive Thinking Model

In your daily life you would have certainly experienced basically two kinds of arguments - the Inductive and the Deductive. Inductive is usually described as moving from the specific to general and deductive begins with general and ends with the specific.

The Inductive Thinking Model helps students how to learn by thinking inductively. It is a way of processing information and solving problems. The Inductive Thinking Model put forth by Hilda Taba, like other models in Inductive Thinking firmly believes that the concept formation precedes Inductive Thinking. She built her model on the basis of three approaches. These, as listed in 'Models of Teaching' by Bruce Joyce and Marsha Weil are namely - (1) thinking can be taught (2) thinking is an active transaction between the individual and data (3) process of thought evolve by a sequence that is 'lawful' i.e. certain thinking skills to be mastered first in order to master certain other thinking skills.

Taba analyses three tasks in the process of Inductive Thinking, which are (1) concept formation (2) interpretation of data (3) application of principles.

1. Concept formation: The stages in this first task are (a) identifying and listing the data relevant to the topic or problem, (b) grouping these into categories wherein members have common characteristics, (c) labeling these categories.

2. Interpretation of data: This stage involves interpreting the data collected and categorized, inferring and generalizing. Here, the students are encouraged to explore relationships with reference to the data collected and categorized. This leads them to inferences that they draw from the relationships they have explored and finally come out with generalizations or principles of the solution they have arrived at.

3. Application of principles: In this third cognitive task, the teaching strategy is that of applying the principles arrived at during the second cognitive task, to explain new phenomena.

Thus, you will note that, during the first phase, the strategy implemented requires students to hypothesize. In the second phase, they attempt to explain or support their hypotheses. And in the last phase, students verify these predictions. Having read the process adopted in the Inductive Thinking Model, you must have concluded rightly that Hilda Taba's Model is based on teaching strategy built in developing thinking capacity wherein students are required to acquire large quantities of data and process them.

The Model requires students to collect information, analyse it thoroughly, organise them into categories and concepts, and finally manipulate these concepts. The role of the teacher in the Inductive Thinking Model is to guide the students in creating and organizing data by using appropriate eliciting questions.

Let us know describe the model in terms of the general components.

Syntax: The series of operations are concept formation, interpretation of data and application of principles or ideas. This involves identifying and listing the data relevant to the topic or problem, grouping these into categories on the basis of common attributes and developing labels for categories.

At first the students are required to predict consequences, explain unfamiliar data or hypothesis. Then they support the hypothesis. Finally students verify this production or identify the connotation that would prove their predictions.

Social System: The atmosphere should be co-operative with pupils involved in activities. The teacher includes the activity and starts controlling but gradually students dominate the activities.

Principle of reaction: The most important task of the teacher is to monitor the process of information processing by the students and use appropriate eliciting questions.

Support System: The major requirement of the model is large quantities of data that have to be given to the pupils. So the teachers' job is to provide this as well as helping in processing the same.

'Check Your Progress' - 5

Complete the following:

1. The three tasks in the process of Inductive Thinking analysed by Hilda Taba are ....

2. The role of the teacher in the Inductive Thinking Model is to guide the students by ……………….......................... data.

4.4.3 Inquiry Training Model

Before we go into the details of the Model, let us first get to know what 'Inquiry' is. J. Richard Suchman, who put forth an Inquiry Training Model, asserts, "Inquiry is the way people learn when they are left alone." This could be illustrated with an example of a small child left alone in a room with different shapes and colours of things. When you observe silently, without interfering with the activities of the child, you will see that the child will touch, throw, drag or even break the things he sees around him. This is how he learns about the things in his environment.

In the teaching-learning scenario, the learner when faced with a confusing situation adopts the method of inquiry. Suchman explains this further in a very simple way. According to him, when one sees a strange object, he is curious to know what it is made of, what it is used for, how it came into existence and so on. In order to find answers to these questions, he examines the strange object closely, compares it and contrasts it with familiar things, enquires others about it. These acts of the person comprise the act of enquiry. Thus, it is now obvious to you that enquiry is preceded by a problem presented to the learner. Suchman's Inquiry Training Model is based on the Scientific method and attempts to teach students the skills of inquiry.

Under this Model of teaching, Suchman presents a problem by demonstrating episodes that have dramatic outcomes, so that the students are alerted immediately and are curious to know the cause for the particular phenomenon. After thus enticing the curiosity of the students he gets them to start asking questions. The questions should be such that the teacher will answer only with a 'yes' or 'no'. If other questions are asked, the teacher directs the students to reframe their questions accordingly. This is the basic requirement for the enquiry model of teaching.

The situation selected by Suchman goes like this. He takes a strip made of two metals welded together and heats this thin strip. It expands and as the two metals have different rates of expansion, the strip bends and assumes a curved shape. The students watching this are puzzled and curiously observe this phenomenon. They then start asking questions like, "What is the strip made of?" But the teacher directs them to ask a question to which he could reply with a 'yes' or 'no'. The student then reframes the question and asks, "Was the strip made of metal?" The teacher replies with a 'yes'. And thus the question and answers go on in this manner. The students then develop hypotheses with the information gathered from the responses to the questions they get from the teacher. They finally develop the hypothesis that' the strip could be made of two metals with different rates of expansion. Since these are attached together, the metal with greater rate of expansion bends more exerting pressure on the other one and tends to produce the curved appearance.

There are five phases in the Inquiry Training Model. They are:

i. Learner faced with a puzzling situation

ii. Data collection

iii. Verification. It is here that the students ask questions to the teacher

iv. In this phase, students organise the data and try to hypothesize

v. Here the students analyse the questions into effective one and ineffective ones and thus arrive at a proper cause and effect relationship or analyse problem-solving strategies used during enquiry.

The role of the teacher here is to assist the students' inquiry by directing them to ask questions that may lead to the type of information that is required by them. The teacher also takes care to make students reframe questions so as to fetch 'yes' or 'no' answers. During the last phase the teacher's task is to direct the inquiry into the process of investigation of the cause of the phenomenon.

We shall now describe the Model in terms of the general components.

Syntax: Four phases can be identified here. They are (1) the area of investigation posed to the student, (2) student structure the problem, (3) students identify the problem, (4) students speculate ways to solve the problem. In phase 1, students are given an area of difficulty and the methodology to investigate. In phase 2, the problem is structured for the students to identify the difficulty in investigation. In phase 3, students are asked to analyse the problem so as to identify the difficulty. In phase 4, the students are asked to find ways of clearing the difficulty, by organizing data in various ways.

Social system: A co-operative and rigorous climate is desired, as the students have to hypothesise. Since the students are in seeking of knowledge that is sought through scientific techniques, the climate also allows for a certain degree of boldness.

Principles of reaction: The teacher has to direct the process of inquiry and induce the students to reflect on it. His aim should be to direct the students towards framing hypothesis, interpret the data correctly.

Support system: The teacher should be skilled in the process of inquiry. The data should be sufficient to provide problematic area for pupils to realize the problem and initiate and conduct inquiry. These form the support system for this Model.

'Check Your Progress' - 6

Complete the following sentences:

1. The basic requirement for the Inquiry Training Model of Teaching is…...…................

2. The 2nd and 3rd phases in this Model are ……................….and……………........

3. The role of the teacher in the last phase of the Model is to ………………..............

4.4.4 Memorisation Model

When you come across the word 'memorisation', you certainly will recall the 'rote memorization method' you had adopted in memorizing the names of the states in India as it exists in the map. Even after innumerable repetitions and drill, you will admit that you did forget one or two of them, when you needed to recall them. Now, is there a way that you could recall every one of them, without forgetting any? According to Presley, Levin and Delancy, this is made possible through the application of various mnemonic devices, as told by Bruce Joyce and Marsha Weil, in their book, 'Models of Teaching'.

You might wonder what this 'mnemonics' is. Mnemonics are strategies for memorizing and assembling information, using peg words, keywords and link words.

Bruce Joyce and Marsha Weil describe the List Word method as follows. This method has two components that help in learning to master the unfamiliar material. The first component provides the learners with some familiar material that links with the unfamiliar material that they have to learn. The second component brings about an association of the new material with the meaning of the unfamiliar word. For example, if the learner is expected to recall the names of the Prime Ministers of India in the order of their service, the mnemonic method to be followed is, first the name of the Prime Minister, then the link word and then an illustration of the link word attached to it. Let us now try this out. The first Prime Minister of India was Jawaharlal Nehru, the second Lal Bahadur Shasthri, the third Indira Gandhi and so on. The following is the method of Link words to be used.

   1. JAWAHARLAL NEHUR - JAVA (LINK WORD)

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2. LAL BAHADHUR SHASTHRI-LAL BAGH GARDENS

(LINK WORD)
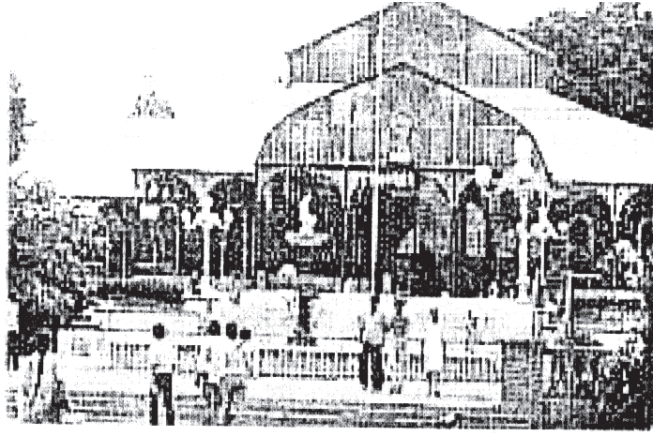
3. INDIRA GANDHI - INDIA (LINK WORD)

The students study the pictures and the words. When they are tested they obviously recall the pictorial illustration at first, then the link word and eventually the name of the Prime Minister. Lorayne and Lucas opines that "you can remember any new piece of

information if it is associated to something you already know or remember." As the pictures are presented in a serial order, the pictorial image helps the students recall the serial order and the name of the Prime Minister too.

The role of the teacher in this Model is a bit laborious as it requires the preparation of the link words and the visual material associated with the words. This is required at the earlier stages. Gradually students learn to make their own link words when they study new material.

The description of the Model in terms of the general components is as follows.

Syntax: Phase 1 - attending to the material listing (using underlining, reflecting)

Phase 2 - developing connections (make connections using key word, substitute word and link word technique)

Phase 3 - expanding sensory images (using techniques of ridiculous associations, and exaggeration. Revise images)

Phase 4 - practising recall (practice recalling the material until completely earned)

Social system: social system is co-operative and both the teacher and the students work for the shaping of new material for the commitment to memory.

Principles of reaction: the teacher's role is to help students identify the items, pairs and images.

Support system: pictures, aids, films and other audio-visual materials for increasing sensory association. No other support system is required.

The Memorisation Model increases the capacity to store and retrieve information. It improves the imagining capacity, which in turn nourishes creativity.

'Check Your Progress' - 7

1.   What do you mean by 'Mnemonics'?

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2.   What is the role of the teacher in the Memorisation Model?

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3.   What are the advantages of the Memorisation Model?

4.5   Let Us Sum Up

- The core process of teaching is the arrangement of the environments within which the students can interact.

- A model of teaching is a technique or plan that helps teachers to achieve educational goals.

- They differ from general teaching techniques in the aspect that they help to realize specific objectives or goals.

- It is compared to the blueprint designed by the engineer, which decides the structure to be built.

- Models of Teaching help students to acquire information, skills, values, ways of thinking and means of expressing themselves.

- They increase the students' capacity to learn easily and effectively.

- A Model of Teaching is described with reference to the components identified in a Model.

- These components are - the syntax, the social system, principles of reaction and support system.

- Bruce Joyce and Marsha Weil have grouped Models of Teaching into four families namely, The Social Family, The Information Processing Family, The Personnel Family and The Behavioural System Family.

- The Concept Attainment Model requires the student to figure out attributes of a category that is already found in another person's mind, by comparing and contrasting examples that contain the characteristics of the concept, with examples that so not contain the attributes.

- The Inductive Thinking Model helps students learn by thinking inductively so as to process information and solve problems.

- The Inquiry Training Model is based on the Scientific Method and attempts to teach the students the skills of inquiry.

- In the Memorisation Model, 'Mnemonic Devices' are strategies for memorizing and assembling information using peg words, key words and link words.

- The Memorisation Model helps to increase the capacity to store and retrieve information.

4.6 Answers to Check Your Progress

'Check Your Progress' - 1

1. A 'model' is something that has a particular pattern, and the word 'Model' in Models of Teaching takes this meaning.

2. To make the environment conducive for achieving the objectives of instruction.

'Check Your Progress' - 2

1. Information, ideas, skills, values, and ways of thinking and means of expressing themselves.

2. More powerful students.

3. Personal study.

'Check Your Progress' - 3

1. Syntax, the social system, principles of reaction and support system.

2. In the interaction between the teacher and students, when the teacher is the centre of activity it is called a 'high-structured Model'.

3. 'Principles of reaction' refers to the mode of reaction adopted by the teacher when responding to the learner.

'Check Your Progress' - 4

1. The Social Family, The Information Processing Family, The Personal Family and The Behavioral System Family.

2. Inductive Thinking Model, Concept Attainment Model (or any two mentioned)

3. Identification of the attributes that helps the learner to distinguish the examples of a category, from non-examples.

4. To help the students to get to know the boundaries of the concept.

'Check Your Progress' - 5

1. (1) Concept formation (2) interpretation of data (3) application of principles

2. Creating and organizing data

Check Your Progress' - 6

1. To teach the students the skills of inquiry.

2. Data collection and verification.

3. To direct the inquiry into the process of investigation of the cause of the phenomenon.

'Check Your Progress' - 7

1. Mnemonics are strategies for memorizing and assembling information, using peg words, keywords and link words.

2. Preparation of the link words and the visual material associated with the words.

3. The Memorisation Model increases capacity to store and retrieve information. It improves the imagining capacity, which In turn nourishes creativity.

4.7   Unit - End Exercises

1. Explain how you would adopt the Concept Attainment Model in teaching concepts.

2. Describe the Inductive Thinking Model of Hilda Taba.

4.8   References

1. Joyce Bruce and Weil Marsha, *Models of Teaching*, editions 5 and 6, Prentice-Hall of India Private Limited, New Delhi -110001, 1997.

2. Greval S.S, *Teacher Effectiveness*, Prakash Brothers, Jalandhar, 1988.

Unit 5 ◻ Communication

Structure

5.1   Introduction

Communication is basic to all human interactions and transactions, because it is the act of imparting and exchanging information. In this Unit we shall discuss what communication means and how important it is in our life. The concept of Communication will be discussed with reference to the components that make up the cycle of Communication. In order to impart and exchange information effectively, there should not be any barriers. But we do come across barriers that affect Communication. We shall see what these factors are, and how they can be overcome. The various meanings of 'Media', the classification of Media, and examples for these along with their merits will be highlighted. Also, since the concept of audio-visuals is important to a teacher, we shall discuss the concept, types and values of these.

5.2   Objectives

After having studied this Unit, you will be able to:

● Recall the meaning of communication

- List out the components of communication
- Represent the cycle of communication diagrammatically
- Recognize the barriers of communication
- Suggest means to overcome the barriers of communication
- Reason out the importance of communication
- Define 'Media'
- Classify the media
- Cite examples for visual media
- Recognize the merits of various media
- List out the values of audio-visual aids

5.3 Communication

5.3.1 Meaning, Importance

Before going into the meaning of the word 'Communication', let us know first how the name itself originated. This has its origin in the Latin word 'Communis', which means 'Common'. The term 'Communication' thus gives us to understand that it is the act wherein a concept, fact, idea, principle or theory is passed from one individual to another or a group.

Communication is the process of give and take of information. But the information conveyed should be without any distortion. What is the purpose of Communication? The objectives of Communication may be various ranging from motivating, informing, suggesting, warning, ordering, brining about a change in behaviour, establishing better relation, bringing about meaningful learning and so on.

In order to understand the meaning of 'Communication' better, let us now see a few definitions of 'Communication'. "Communication means sharing of ideas and feelings in a mood of mutuality." "Communication is a process of sharing of experiences till it becomes a common possession." "Communication involves interaction which encourages give and take". "Effective Communication is a two-way process, including feedback and interaction."

From the few definitions we have seen, we may conclude that Communication generally means the following - Passing of information, exchange of ideas and sharing of ideas.

Types of Communication: While explaining the meaning of Communication, you have seen that it takes place between two persons or between one and a group and so on. Based on this, the presentation may be in different modes such as:

1) Face-to-Face Communication: Here, Communication is person to person, wherein one person speaks and the other listens. In this type, therefore, Communication is a face-to-face interaction. Even when it is between one person and a group, like in a lecture, it is a face-to-face interaction. This is the most important characteristic of such a mode of Communication. This is very effective as the listener can ask question, get his doubts clarified and get satisfaction.

2) Writing - reading Communication: Here, the experience of the receiver of information is derived from the reading material. Although the reader enjoys the writings, there might be certain aspects that he may not understand and there is no scope of it being clarified immediately. The lack of face-to-face interaction is a handicap here. Such Communication takes place when reading books, newspapers, magazines, etc.

3) Visualising - observing: An apt example of this is viewing TV programmes, watching a film, witnessing a drama being enacted. These experiences provide an opportunity to view the facial expressions and gestures and so produce a greater impact than writing -reading communication.

Communication is basic to all human performance and interaction. Therefore, the ability to communicate effectively is very essential in any interaction. Communication is a two-way process that is affected following the principles of Psychology of human nature. Man, being a social animal, can never live in isolation. Moreover, in a society where people are interdependent, it is essential that they communicate with people around them. Can you imagine a world where you can live without interacting with anybody for even a day!!! Even if you do not verbally communicate, you will certainly need to resort to some kind of non-verbal communication. Such is the importance of Communication. Communication, which is made with a specific purpose, is a very important process, irrespective of the place where it takes place. It reduces the gap between the knowledge developed and that, which is acquired. Communication has traversed a long way from the days of the runner to the present day satellite and Internet.

'Check Your Progress' - 1

1. Define the term Communication.

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2. List four examples that can be used as channels of Communication.

5.3.2 Components

Communication is always made with a purpose. For Communication to take place there should be a source from where the message has to originate and then a receiver to receive the same. But, Communication does not comprise only of these. Between the sender and the receiver, are the message and the medium/channel of Communication. The channel may be the language, the signs, gestures, etc. The receiver might receive it by listening, reacting or simply observing. Thus, the process of communication involves four components, namely, Sender, technically known as encoder, Message/Signal, Medium or Channel of Communication and the Receiver or Decoder.

A Simple diagrammatic representation of the cycle of Communication will give you a clear idea of the
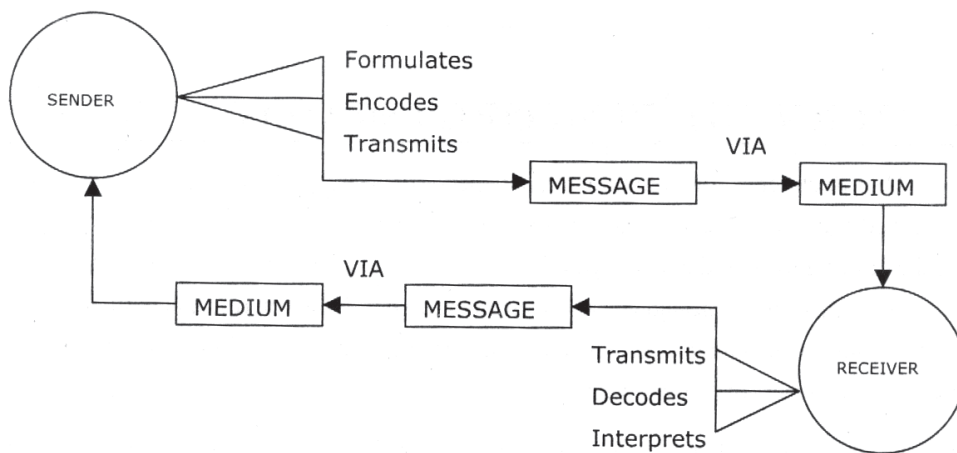
Now looking at the above diagram, you will find it easy to explain the cycle of Communication.

The *sender* or the encoder has the information, which is transmitted accurately at optimum speed. This message may be for a single person or a group of people. The message may have for its medium spoken or written symbols that are hand-written or

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drawn or photographic pictures. It may also be expressions or gestures. The message when received by the receiver/decoder, through the medium, is decoded or interpreted by the receiver/decoder. In turn, the receiver reacts to the message, produces the desired response and sends this message via an apt medium, back to the sender. This sending of the response is called the feedback.

'Check Your Progress' - 2

1. Name the four components of the Communication cycle.

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2. What is another name for decoder?

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3. What do you mean by feedback?

5.4   Factors Affecting Communication

The effectiveness of Communication depends on a large number of factors. You would have experienced situations wherein you had talked to someone and the person with whom you wanted to share the information could not hear you or understand you due to various reasons. These may be the words you used, the noise around you and such other reasons. Now you find that in such a situation, the Communication you wanted to effect had not materialized, due to the factors like the above, which defeat the effectiveness of Communication.

Now let us see in detail what these factors are. Broadly speaking, these can be classified into four.

1. Factors related to the sender.

2. Factors related to the message.

3. Factors related to the receiver.

4. Factors related to the climate.

Let us now discuss each one in detail.

1. Factors related to the sender: Here the major concern is that of the sender. It is essential that the sender of information needs to have a correct perception of himself as a communicator and also the information that he wants to communicate. Another point of concern is how the receiver looks upon the sender. Unless the sender has an open mind and concentrated attention, the effectiveness of Communication will not be realized.

2. Factors related to the message: The factors related to the message can be categorized into two, namely, verbal message and non-verbal message. When Communication is done through verbal message, the factors given consideration here are:

    a) Accuracy and precision of words

    b) Simplicity and clarity

    c) Appropriateness

    d) Imagination and originality

    e) Intonation and delivery

The factors that are to be given prominence in the non-verbal Communication are:

    a) Posture

    b) Gesture

    c) Facial expression and emotions

    d) Movement

3. Factors related to the receiver: As for the receiver factors, the aspects relevant here are:

    a) Intelligence

    b) Age and sex

    c) Self esteem

    d) Motivation

    e) Attitude

    f) Listening skills

4. Factors related to the climate: The climate related factors are:

  a) Openness

  b) Empathy

  c) Supportiveness

  d) Positiveness

  e) Avoiding noise

'Check Your Progress'- 3

1. What are the four broad categories of factors that affect Communication?

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2. What are the two basic requirements of a sender of information?

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3. The five factors related to verbal message are:

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4. The factors related to non-verbal message are: ---------------------------------------

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5. The receiver related factors of Communication are:

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6. The climate related factors of Communication are:

5.5   Media Classification, Relative Merits

The Latin word 'Media', means 'between'. Applying this term in the field of communication, you can conclude that 'Media' is the device that comes 'between' the sender and receiver to bring about effectiveness in communication.

Depending on the matter to be conveyed, and other various requirements, Media can be classified into a range of aids- ranging from projected aids like charts, diagrams, maps to be projected, aids like slides, films transparencies etc. Aids like this by themselves are not termed as Media, but only when they are used for the purpose of instruction, they are called 'Media'.

A classification of the types of Media can be had from the following table.

PROJECTED AIDS	NON-PROJECTED AIDS		ACTIVITY AIDS	3D AIDS	AUDIO AIDS
	Graphic aids	Display boards			
Films Filmstrips	Photographs Pictures	Black board Flannel Board	Experimentation Demonstration	Models Objects	Radio TV- recording
Slides Opaque projection	Flashcards Posters	Bulletin board Magnetic board	Dramatics Programmed- instruction	Specimens Dioramas	
O H P	Maps Diagrams Charts Graphs Cartoons Comics	Peg board	Teaching- machines Computer- Aided instruc- tion (CAI)	Pupptes	

Another way of classifying the Media is by categorizing them into Hardware and Software. Hardware is based on the application of engineering principles for developing equipments. Few examples for hardware are a personal computer, OHP, projector, tape recorder, TV etc. Software uses principles of psychology for modifying behaviour. Software items are by themselves not capable of helping the learner or teacher, but act along with the hardware in the teaching-leaning process. A few examples for Software are computer programmes, transparencies, audiocassettes, TV programmes etc.

The third way of classifying Media is by categorizing them into auditory, visual and audio-visual aids. Auditory Media are devices that can only be heard. Examples under this category are the radio, Language Laboratories, sound distribution system sets, Tape and disc recordings.

Visual Media are those devices that cater to the sense of seeing. Examples of this are bulletin board, chalk board, charts, drawings, exhibits, filmstrips, flash cards, flannel board, pictures, maps, models, posters photographs, self instructional materials, silent films and slides. Audio-visual Media comprise devices that cater to both the senses of hearing and seeing. Examples of this category are demonstrations, films, sound filmstrips, study tours, TV and videotapes.

Now that we have discussed the categories of Media, it is to be decided on what criteria these should be selected for imparting effective communication. So let us now see what these criteria are.

Principles behind selecting appropriate Media for Instructional purposes:

1. Principle of selection: The media used for instructional purposes have to be selected keeping in mind the age-level and grade level of the learners. The selected teaching aid should be interesting and motivating. They should be true representation of the actual things.

2. Principle of preparation: When a teaching aid is prepared, locally available material should be used, as far as possible. Teachers having acquired training should prepare them, with the involvement of students in the preparation of the same.

3. Principle of presentation: While presenting the audio-visual aids, the teacher using them should handle them carefully and should use it only after having rehearsed before actual presentation. Care should be taken to see that there is proper illumination in the classroom and also that the aid is visible to all the students.

4. Principle of response: It is the duty of the teacher to guide the students to respond actively while presenting the audio-visual aids so that it helps in maximum comprehension.

5. Principle of evaluation: The audio-visual material used should be continuously evaluated along with the method of using it so that the objectives of using the same are realized.

Relative merits of Media/audio-visual aids:

- Media motivates learners and create interest and enthusiasm.

- They help teachers reduce verbalism.

- Using audio-visual aids caters to multiple senses and therefore provides clearer images.

- Though first hand experiences are the best, substituted experiences, inaccessible objects and phenomena and such audio-visual experiences help in easy and precise acquisition of concepts. They provide variety, making it more interesting, which in turn enhances comprehension.

- Using of audio-visual material follow the maxims of teaching such as 'learning by doing', 'known to unknown,' 'near to far' etc.

- It saves a lot time and energy.

- They make learning experiences concrete.

- They break the monotony of the teacher's talk.

- Bringing the world into the classroom is made possible by the use of Media.

- The use of Media in the classroom provides a conducive atmosphere for effective learning.

'Check Your Progress' - 4

1. What are the three ways in which Media can be classified?

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2. Give three examples of audio aids.

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3. Give three examples of projected aids.

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4. Give three examples of 3D aids.

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5. What is the basic difference between Hardware and Software?

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6. Give three examples of Hardware.

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7. Give three examples of Software.

----

8. Give any five merits of audio-visual aids.

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9.   What are the principles behind selecting appropriate Media?

5.6   Let Us Sum Up

- Communication is the act wherein a concept, fact, idea, principle or theory is passed from one individual to another or a group.

- The media through which communication is made is called Communication Media.

- The four components in the Communication process are the Sender / Encoder, Message / Signal, Medium / Channel of Communication and the Receiver / Decoder.

- Intrapersonal communication is the assimilation and processing of information gathered within oneself.

- Interpersonal communication is the communication that takes place between two entities. The entities could be individuals, a group or between two groups.

- The factors affecting Communication can be broadly classified into - factors related to the Sender

- Factors related to the Message, factors related to the receiver and factors related to the climate

- Factors related to the Sender are the correct information required to be given, correct perception of the Sender, correct perception of the Sender by the Receiver.

- Factors related to the Message can be further classified into the verbal and non-verbal message. Factors related to the Verbal Message are-

  Accuracy and precision of words

  Simplicity and clarity

  Appropriateness

  Imagination and originality

  Intonation and delivery

- Factors related to the Non-verbal Message are-

  Posture

  Gesture

  Facial expression and emotions

  Physical movement

- Factors related to the Receiver are-

  Intelligence

  Age and sex

  Self-esteem

  Motivation

  Attitude

  Listening skills

- Factors related to the climate are -

  Openness

  Empathy

  Supportiveness

  Positiveness

  Avoiding noise

- The audio-visual materials or electronic devices used for transmitting or delivering messages are called Media.

- Media can be classified into audio, visual and audio-visual Media; 2D, 3D and projected aids; Software and Hardware.

- Hardware is based on the application of engineering principles for developing equipments.

- Software uses principles of psychology for modifying behaviour, involving task analysis, writing objectives, and selecting appropriate leaning strategies, providing feedback and evaluation.

- While using Media for instructional purposes, certain principles should be borne in mind.

- These principles are related to the various stages like selection of Media, preparation, presentation, response and evaluation.

- The advantages of using audio-visual aids for the purpose of instruction are many. They make teaching-learning interesting, save time and energy of the teacher and students, provide variety in teaching, bring clarity and reality in teaching, effect better comprehension, and reduce verbalism and so on.

5.7   Answers to 'Check Your Progress'

'Check Your Progress' -1

1.   "Communication is the sharing of ideas and feelings in a mood of mutuality'.

2.   Language, signs, gestures, written word (or any of the four mentioned).

'Check Your Progress' - 2

1.   The four components are Sender, Message, Medium and Receiver.

2.   Receiver.

3.   Sending of response by the Receiver of the message is called the feedback.

'Check Your Progress' -3

1.   Factors related to the Sender, factors related to the Message, factors related to the Receiver and factors related to the climate.

2.   Correct perception of himself as a communicator and also the information that he wants to communicate.

3.   Accuracy and precision of words

        Simplicity and clarity

        Appropriateness

        Imagination and originality

        Intonation and delivery

4.   Posture, gestures, facial expressions and emotions, and physical movement.

5.   Intelligence, age and sex, self-esteem, motivation, attitude, listening skills.

6.   Openness, empathy, supportiveness, positiveness, avoiding noise.

'Check Your Progress' - 4

1.   Media can be classified into audio, visual and audio-visual Media; 2D, 3D and projected aids; Software and Hardware.

2.   The radio, Language Laboratories, sound distribution system sets.

3.   Films, filmstrips, slides.

4.   Models, objects, specimens.

5. Hardware is based on the application of engineering principles for developing equipments. Software uses principles of psychology for modifying behaviour.

6. Personal computer, OHP, projector.

7. Computer programmes, transparencies, audiocassettes.

8. Create interest and enthusiasm, motivates students, reduces verbalism, saves time and energy, make learning experiences concrete.

9. Principles of selection, preparation, presentation, response and evaluation.

5.8 Unit - End Exercises

1. Differentiate between Hardware and Software.

2. What is the role of audio-visual aids in the teaching-learning process?

3. What is Communication? Distinguish between intra-communication and inter-communication.

4. Explain the cycle of communication with the help of a diagram.

5.9 References

1. Mathur S. S, *Teacher and Secondary Education*, Vinod Pustak Mandir, Agra.

2. Aggarwal J. C., *Essentials of Educational Technology: Teaching Learning*. Innovations in Education, Vikas Publishing House, New Delhi, 1995.

3. Sampath K, A. Pannerselvam, S. Santhanam, *Introduction to Educational Technology*, Sterling Publishers Private Limited, New Delhi.

4. Kumar. K L, *Educational Technology*, New Age International Publishers (P) Ltd. New Delhi.

5. Usha Rao, *Educational Technology*, Himalaya Publishing Company, Bangalore.

UNIT 6 □ TEACHING AS COMMUNICATION

Structure

6.1   Introduction

In Unit 5 we discussed what Communication generally means, and the components of communication cycle. Here, in this Unit, we shall see how teaching is a communication process, and how this takes in the classroom. You have already seen that the purpose of communication is to "share ideas in a mood of mutuality", and this involves interaction which encourages give and take of information. It also involves a feedback. In this Unit we shall see these aspects of communication with reference to the communication process taking place in the classroom between the teacher and the students.

6.2   Objectives

After studying this Unit, you will be able to:

- Justify that the interaction that takes place between the teacher and the students in the classroom is communication.

- Explain the concept of classroom communication.

- Identify the components of classroom communication.

- Describe the cycle of classroom communication.
- Name the types of classroom communication.
- Explain the patterns of classroom communication.
- List out the factors that are responsible for effective classroom communication.
- Explain the factors that are responsible for effective classroom communication.
- Identify the barriers of classroom communication.
- Bring out the relative merits of Verbal communication.
- Bring out the relative merits of Non-Verbal communication.

6.3 Teaching as Communication Process-Concept

You have already seen that the major objective of Communication is to inform, exchange/share ideas. When the process of Communication takes in a classroom, the objectives are extended to include those like motivation, change of behaviour and making learning meaningful.

Taking the classroom-teaching scenario into consideration, the purpose of Communication here is to bring about better learning and a change in behaviour. Since the learning experiences provided cannot always be first hand, Communication plays a major role in classroom teaching as it has to effectively compensate for the lack of first hand experiences.

Now, let us first discuss in detail the concept of Communication with reference to a classroom situation. The components of the process as we have seen are the encoder/ sender, message, the medium and the decoder/receiver. Relating these components with the classroom teaching-learning situation, the teacher is the encoder, the information/content dealt with during the interaction between the teacher and the students is the message, the language/verbal symbols or other aids used in teaching comprise the medium and the student/learner is the decoder/receiver.

Let us now depict this cycle in a diagrammatic representation of the Communication cycle that takes place in the classroom.
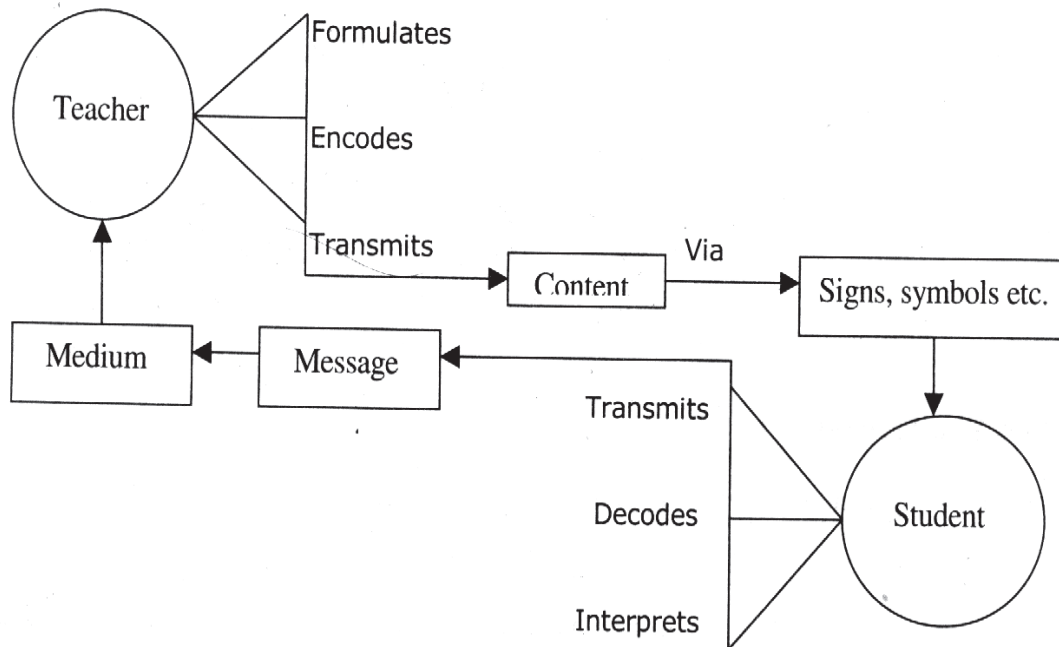
Classroom Communication

The teacher (sender) transmits the information with regard to the content either verbally or through visual aids and the Receiver listens and/or sees and reacts in ways like verbal response, written response, or other performances.

Thus the Communication in the Classroom satisfies all the component criteria of the Communication cycle. An ideal Classroom Communication should have the message sent by the teacher and the counter message from the student.

Types of Classroom Communication: The Communication between the teacher and the students in the Classroom can be of Verbal Communication and Non-verbal Communication. Verbal Communication is mostly audible and Non-verbal uses visual material for Communication. Thus language (spoken or written) or audio-visual materials are the media of communication.

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                    TYPES OF CLASSROOM COMMUNICATION
            ┌───────────────────────┴───────────────────────┐
         VERBAL                                        NON-VERBAL
      ┌──────┴──────┐                            ┌──────────┴──────────┐
  TEACHER       STUDENT                      TEACHER              STUDENT
      └──┬───────┬──┘                      ┌─────┴──────┐             │
         │       │                    CONVERGENT   DIVERGENT          │
    INITIATE   RESPOND              ┌───────┴───────┐         ┌───────┴───────┐
                                 CAUSED ON    DISRUPTING   CAUSED ON      NON-
                                   TASK      EFFECT OF TASK   TASK      DISTURBING
                                                                        EFFECT OF
                                                                          TASK
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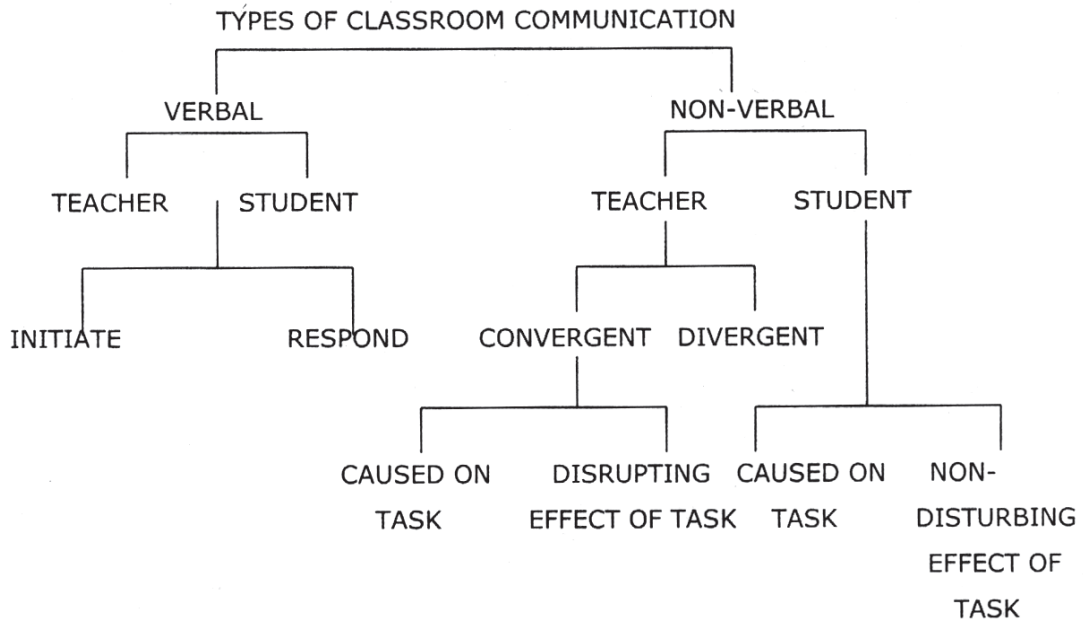
'Check Your Progress' - 1

1. Name the components of a Classroom Communication.

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2. What are the two ways in which the teacher effects Communication?

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3. What should an ideal Classroom Communication. Discuss.

6.4 Communication Patterns in the Classroom, Relative Merits

A pattern in Communication refers to the relationship between the sender and the receiver. In this context, there are many possibilities based on the number of persons involved in the Communication. A network is established on the basis of the number of persons involved at the receiving end. These patterns of network have been described as follows.

1. Chain network pattern: Here the sender communicates with one receiver, who is no. 1 becomes the sender of information to the next receiver, receiver no. 2 and this goes on in a chain fashion, thus getting the name, chain network pattern.

**2. Wheel pattern:** In this pattern of communication, the sender takes up the central position and communicates/sends information directly to the receivers, who are more in number. These receivers are not in a position to communicate with each other. Such a pattern is communication is highly effective and operates in small establishments, where a task has to be done with great speed. Such a set up of wheel pattern is called the 'Radial pattern'. With reference to the classroom, the teacher who is the sender of information is in the centre and sends information to the students who are the receivers. This pattern can be depicted in the following manner:
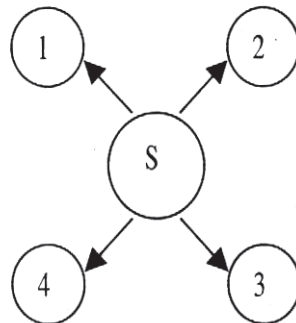
A slight variation of this is, called the 'Polygonal pattern'. This is an extension of the Radial pattern, wherein there is some scope for the receivers to communicate with each other. In the classroom, this pattern of communication is seen when students interact with each other to exchange information to clarify or ascertain.

3. Star network pattern: In such a network pattern, the Sender and all the receivers communicate with each other mutually. In this decentralized pattern, the Sender does not

have a superior position. This makes it possible to deal with problems and innovations. This pattern can be thus represented diagrammatically:
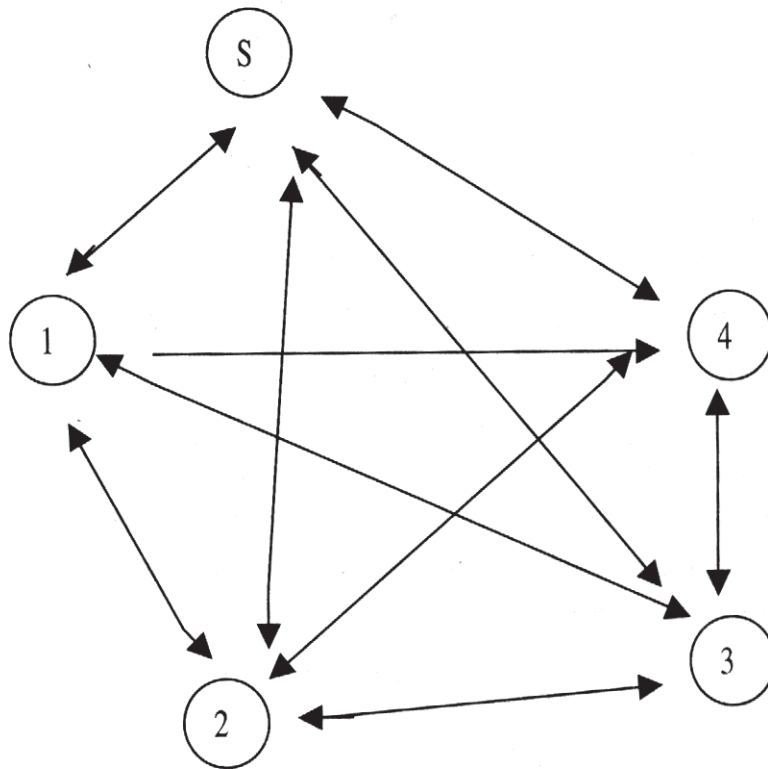
In a classroom, the teacher, who wants to solve a classroom problem, with reference to student, first sends this information to the parents who gives this to the student and discusses with him his problem. The teacher also simultaneously collects information from the classmates and friends of the student. The information thus gathered, by the teacher and parents are exchanged. The parents too collect information from the neighbours' children and their child's friends and pass this on to the teacher. Thus the teacher, parents, the problematic student, the classmates, neighbours, friends etc form the parts of the Star network. The teacher, with the help of the data collected, solves the problem.

'Check Your Progress' - 2

1. What do you mean by a pattern in Communication?

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2. On what does the pattern of Communication based?

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3. What are the two variations of the wheel pattern?

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4.   What is the advantage of the Star network pattern?

6.5   Effective Communication in the Classrooms-Barriers

We say that communication is effective when the purpose of communication is achieved. So far as the classroom is considered, the effectiveness of communication is based on several factors, which we will now discuss one after the other.

1. Two-way Communication: Communication in the classroom is a two-way process, which provides the facility of a feedback from the learners. This two-way process facilitates further clarification of the topic taught and provides scope for seeking further information whenever needed.

2. Effective feedback: This feedback helps to ascertain the realisation or non-realisation of objectives. The feedback can be of the verbal or non-verbal mode. In the verbal mode the students orally respond or seek clarification. In the non-verbal mode, they express their non-comprehension in the form of a nod or shake of the head or with a satisfactory or unsatisfactory expression on their faces that show whether the communication has been effective or not.

3. Clarity of expression: Clarity of expression plays a vital role in the communication in the classroom. This clarity can be achieved only when the teacher has a good command over the language, since language is the most effective tool of communication. The teacher

has to take extra caution to see that the language adopted suits the level of the age group with reference to the vocabulary used, speed of delivery and tone of delivery, appropriate loudness so that comprehension is achieved by the learners.

4. Motivation of students: Since the learners are the main stake holders in a classroom, it is essential that communication should be made in such a way that they are motivated to listen, and this should be sustained throughout the lesson. When this is achieved, communication becomes effective.

5. The use of teaching aids: Now, in order to motivate students, the teacher should make use of teaching aids that draw the attention of students and get them interested to know more. This enables the teacher to communicate effectively as the topic is clearly understood and well retained by the learner.

Barriers to classroom communication: Communication may fail due to various barriers. These may be discussed under the following categories:

1. Physical barriers
2. Environmental barriers
3. Psychological barriers
4. Intellectual barriers

Let us now discuss each barrier individually.

1. Physical barriers: As the term suggests, the barriers that arise due to the physical condition of the learner, come under this category. These are:

1. Physical discomfort
2. Lack of illumination and ventilation
3. Uncomfortable seating arrangements
4. Lack of facilities like proper desks and benches

All the above factors make the students uncomfortable and thus they are unable to pay attention.

2. Environmental barriers: This pertains to the surrounding where the institution is situated. We all know that students are generally tempted by distraction from outside the class. This is more so when there is a TV match or a popular film that is on during the class hours. Under such circumstances students are tempted to view these rather than attend class. The teacher making the lesson interesting by using various media and audio-visual aids can avoid this.

Another environmental factor that creates a barrier for effective classroom communication is the noise inside or outside the classroom, which disturbs the Communication process. This can be taken care of, if the institution is located away from the noisy traffic and away from factories, so that the school is situated in a calm place.

3. Psychological barrier: One of the factors here is the lack of attention on the part of the students who are only physically present there, but mentally wandering. This daydreaming will make less learning or no learning at all in the classroom. In such a situation, the teacher should provide learning experiences for the students by actively involving them in the teaching-learning process.

Another barrier is the attitude of the learner. Supposing the students have already developed a negative attitude towards the particular subject or the teacher, they are not attentive. Here too the responsibility rests with the teacher in getting them to start liking the subject/teacher, by making use of strategies, methods and teaching aids that combine with one another to make the classroom communication interesting and thereby effective.

4. Intellectual barrier: Learners tend to understand less when their perception is less. This condition arises in teaching-abstract concepts/topics. In order to help them to perceive better, the teacher should use aids and also involve the students in the preparation and use of the same. This 'learning by doing' principle helps the students to get a better perception, which leads to good comprehension, which in turn makes communication, effective.

Excessive verbalism on the part of the teacher, inaudibility of speech or very loud speech, great speed of speech, use of unfamiliar vocabulary are some of the other barriers of Communication that the teacher must be aware of and avoid while interacting with the students in the classroom.

'Check Your Progress' - 3

1. How does feedback facilitate effective Communication?

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2. Mention the factors that bring about clarity in expression?

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3. Name the major barriers of classroom Communication.

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4. Mention the factors that contribute to the Physical barriers of classroom communication.

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5. What are the factors in the environment that create barriers for effective classroom Communication?

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6. How can the noise factor be avoided?

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7. Name the Psychological barriers in classroom Communication.

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8. How can the teacher overcome the Psychological barriers during classroom Communication?

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9. List the factors that contribute to the Intellectual barriers in classroom Communication.

6.6   Let Us Sum Up

- The components of classroom Communication are the teacher, content, media, students and the message (response).

- The two ways in which the teacher affects classroom Communication are the Verbal and Non-verbal Communication.

- A pattern in Communication refers to the relationship between the Sender and the Receiver, and is based on the number of persons involved in the Communication.

- There are three patterns of Communication, namely Chain pattern, Wheel pattern (Radial) and the Star pattern.

- The Wheel and the Star pattern are generally observed in the classroom.

- The Radial pattern is a slight variation of the Polygonal pattern. It does not give scope for Communication between the Receivers, in the Polygonal pattern there is a slight scope for this.

- The effectiveness of Communication is based on several factors.

- Effective Communication are a two-way Communication, effective feedback, clarity of expression, motivation of students that is sustained throughout the lesson, and the use of teaching aids that is instrumental in creating and sustaining motivation and interest on the part of the students.

- The factors that come in way of effective Communication are called the Barriers of Communication.

- Barriers of Communication can be grouped under four categories, namely Physical, Environmental, Psychological, and Intellectual.

- The Physical barriers comprise the aspects of physical discomfort, lack of facilities like benches, desks, ventilation and illumination.

- The Environmental barriers comprise the distraction from within and outside the classroom, like noise and TV, films etc.

- Under the psychological barriers come the aspects of daydreaming, attitude of the student towards the subject and the teacher.

- The Intellectual barriers are found in the lack of perception of abstract concepts, excessive verbalism on the part of teacher, inaudibility of speech or very loud speech, great speed of speech and use of unfamiliar vocabulary.

6.7   Answers to 'Check Your Progress'

'Check Your Progress' -1

1.   The teacher is the encoder, the content dealt with is the message, the language/verbal symbols or other aids used in teaching comprising the medium and the student/learner who is the decoder/receiver.

2.   Verbal and Non-verbal.

3.   Counter message sent by the student.

'Check Your Progress' - 2

1.   The relationship between the Sender and the Receiver.

2.   The number of persons involved in the Communication

3.   Radial and the Polygonal patterns.

4.   It permits the Sender and all the receivers to communicate with each other mutually.

'Check Your Progress' - 3

1.   Feedback facilitates clarification of the topic taught and also provides scope for seeking further information.

2.   Good command over the language, apt vocabulary, speed and tone of delivery, and appropriate loudness of voice.

3.   Physical, Environmental, Psychological and Intellectual barriers.

4.   Physical discomfort, lack of illumination and ventilation, lack of facilities like proper desks and benches.

5. Noise from within and outside the institution, disturbance form TV/cinema.

6. Institution to be situated far from the noisy traffic and factories.

7. Daydreaming, negative attitude of the learners towards the subject and teacher.

8. By making use of strategies, methods and aids that combine with one another to make classroom communication effective.

9. Low perception, excessive verbalism on the part of the teacher, inaudibility of speech, very loud speech, great speed of speech, use of unfamiliar vocabulary.

6.8   References

1. Sampath K, A. Pannerselvam, S. Santhanam, *Introduction to Educational Technology*, Sterling Publishers Private Limited, New Delhi.

2. Aggarwal J. C., *Essentials of Educational Technology: Teaching Learning.* Innovations in Education, Vikas Publishing House, New Delhi, 1995.

3. Kumar. K L, *Educational Technology*, New Age International Publishers (P) Ltd. New Delhi, 1996.

4. Usha Rao, *Educational Technology*, Himalaya Publishing Company, Bangalore.

5. Pachim S, *Curricular Innovations and Educational Technology.*