BLOCK III: THE FUNDAMENTAL BASES OF TEACHING AND LEARNING

Unit 1: Teaching

Unit 2: Phases of Teaching

Unit 3: Nature of Learning

Unit 4: Levels of Teaching Learning

Unit 5: Models of Teaching

UNIT-1

MEANING, NATURE AND CHARACTERISTICS OF TEACHING

Unit Structure:

- 1.0 Introduction
- 1.1 Objectives
- 1.2 Meaning of Teaching
- 1.3 Nature and Characteristics of Teaching
- 1.4 Marks of Good Teaching
- 1.5 Principles of Teaching
- 1.6 Summing Up
- 1.7 Answer to 'Check Your Progress'
- 1.8 Questions and Exercises
- 1.9 References and Suggested Readings

1.0 Introduction:

The teaching and learning process is as old as human civilization. So, like human civilization, the teaching and learning process also has its history. Teaching means to train the children to adjust to any situation. In modern times, teaching is regarded as a skilled job and complex task as it should provide maximum benefit to the students to develop themselves as human resources. The success of the teaching-learning process largely depends on good planning and proper execution.

1.1 Objectives:

After going through this unit you will be able to—

- *know* the meaning and general characteristics of teaching,
- *know* the meaning, aims, and characteristics of learning,

- *develop* an understanding of the concept of the teaching-learning process,
- examine the marks of good teaching,
- *understand* the general and psychological principles of teaching.

1.2 Meaning of Teaching:

To know the meaning of teaching, it is necessary to know what teaching is not merely imparting knowledge to students, not merely it is a giving device. The meaning of teaching can be explained by narrow meaning and broad meaning.

In the narrow sense, teaching is a process that is given by a teacher or by any other person in society to a student at a particular place or school. From this sense, teaching may be according to a prior prescribed curriculum or the teaching may be based on one's own experience. This type of teaching is given to make a student able to stand on his legs and establish his individuality.

In the broad sense, it is a process by which different stakeholders like the family, the neighbours, friends, social and religious institutions, the educational institutions, etc. teach a person throughout his life how to achieve his necessities and make an environment. Hence, according to wider meaning, all the persons or things that come into the environment teach him something or give him some experience.

The meaning of teaching can also be described with the help of different definitions provided by different educationists. Some of them are:

- According to W. M. Ryburn, "Teaching is a relationship which helps the child to develop all his powers."
- According to Burton, "Teaching is the stimulation, guidance, direction, and encouragement of learning."
- In the words of John Brubacher, "Teaching is an arrangement and manipulation of a situation in which there are gaps and obstructions which an individual seeks to overcome from which he will learn in the course of doing so."

- According to Thomas F. Green, "Teaching is the task of the teacher which is performed for the development of child."
- Clarke defined teaching as "the activities that are designed and performed to produce changes in students' behaviour."
- In the words of Yoakan Simpson, "Teaching is the means whereby society trains the young in a selected environment as quickly as possible to adjust themselves to the world in which they live."
- To quote Silverman "Teaching is considered as an art as well as a science" because teaching can be studied objectively and scientifically.
- G.A. Yoakham and R. G. Simpson think, that "Teaching is the means whereby the experienced members of the group guide the immature and infant members in their adjustment in life."
- In the words of Henry C. Morrison, "Teaching is an intimate contact between a more mature personality and less mature one which is designed to further the education of the latter."

Teaching is the specialized application of knowledge, skills, and attributes designed to provide unique service to meet the educational needs of the individual and society. It is a partnership between schools, the community, and parents to help children succeed in their academic careers.

1.3 General Characteristics and Nature of Teaching:

Teaching is a very unique activity. So, its characteristics are also unique. Some of the general characteristics of teaching are discussed below:

- 1) Interactive Activity: Teaching activities mainly happen through the interaction of teachers and students. Through proper interaction, the teacher provided different valuable knowledge to students and students received it.
- 2) Well-Planned Process: Teaching is a well-planned activity. Well-planning is needed to reach the goal of teaching. The presentation of teaching is done effectively with the help of proper planning.

- 3) Gives Information: To live a happy life, knowledge of adjustment is required for every student. Teaching provides different information through which students can adjust in every situation properly.
- 4) Both Formal and Informal Type: Teaching is both formal and informal type. The formal type of teaching is delivered in educational institutions with the help of proper rules and regulations. Informal teaching is related to different types of real-life experiences acquired by students in their day-to-day lives from different stakeholders.
- 5) Skilled Job: Teaching is a difficult activity. Only the knowledge of the subject matter never helped a teacher to be effective in his/her teaching. It required skills. Teaching is a skilled job. With the help of skills, teachers can modify the behaviour of the students.
- 6) Communication Process: Proper communication between teacher and taught is developed with the help of teaching activity. This communication may be verbal or non-verbal through which a good bond is established between teachers and taught.
- 7) Diagnostic and Remedial: Teachers can identify the strengths and weaknesses of the students during the time of teaching. After identifying the weakness, the teacher can apply diagnostic and remedial measures to remove the weaknesses.
- 8) Measurable: Teaching can change the behaviour of the students. The instinctive nature of students can be changed with the help of teaching. Measurement of teaching will be done by the amount of changing behaviour of the students. So, it is said that teaching is measurable.
- 9) Tri-polar Process: Teaching is a tri-polar process. These three poles of teaching are objectives of education, content, and students.
- 10) Stimulating Work: Teaching is a stimulating work. Through teaching, the teacher can stimulate the students to acquire new knowledge actively.
- 11) Cooperative Process: Teachers can't make teaching effective without the participation of students. Teaching will be effective only when teachers and students are cooperatively involved in it.

12) Both Art and Sciences: Teaching is a combination of both art and sciences. As arts, teachers use his creativity and style in it. In sciences, different scientific principles, maxims, devices, and methods are applied in teaching.

CHECK YOUR PROGRESS
Que. 1: Define teaching.
Que. 2: What is informal teaching?
Que. 3: Mention the three poles of teaching.

1.4 Marks of Good Teaching:

Teaching is effective when teachers teach properly. There are different criteria or marks of good teaching. All the teachers must follow these criteria or marks to make his or her teaching effective. These are:

- 1) Recognize Individual Differences among Pupils: Each child is unique and different from others. Their interest, likings, hobbies, capacities, and needs are different from each other. The teacher must recognize the individual differences of pupils while teaching. Otherwise, the all-round development of pupils is not possible. Teachers should always remember that standardized procedures do not fit every student.
- 2) Systematic and Well Planned: The success of the teaching-learning process depends on proper planning. Students can learn

easily if the planned subject matter is presented systematically. Thus, it is said that good teaching always should be systematic and planned properly. The teacher should always study the mental make-up of the students he teaches.

- 3) Democratic: Good teaching should be democratic. There should be equal importance to all children irrespective of any barrier. All children can learn something. A good teacher always respects the individuality of his students. For that democratic atmosphere should be provided at educational institutions.
- 4) Helps to Adjust in the Environment: The teaching-learning process helps students to adjust to a new situation. Good teaching helps students to learn the skills of adjustment. These skills help the students to cope with any new situation properly. To live a happy life, adjustment to a new situation is essential.
- 5) Follows Laws of Learning: Major and minor laws of learning introduced by Thorndike help to make teaching successful and permanent. Teachers should follow the law of readiness, the law of effect, and the law of exercise while he/she teaching in the class.
- 6) Sympathetic: Good teaching is kind and sympathetic. The teacher should have a sympathetic understanding of those whom he or she teaches. When the learner fails to understand the teaching of the teacher, the teacher first checks himself or herself and those of the learner afterward. Good teaching creates an atmosphere of acceptance, understanding, and sympathy.
- 7) Easily Motivate the Students: Without motivation, the students can't learn something. Good teaching should easily motivate the students to acquire new knowledge and experiences. If students are motivated to learn, half of the teacher's work is minimized.
- 8) Co-operative: Good teaching is always cooperative. Teachers should look after the complaints and problems of students and try to solve all these. As teaching and learning is an interactive process without cooperation, teaching is not effective at all.
- 9) Skilled Job: It is a famous saying that 'teaching is not everybody's cup of tea'. Because the teaching of a teacher requires knowledge

- of the subject matter, capacity of classroom management, techniques to use methods, use of technology, etc. All these make teaching effective. Thus it is said that good teaching is a skilled job.
- **10) Selective:** Good teaching is selective. The subject matter to be taught is selected based on the interests and needs of the students as well as the development of skills.
- 11) Helps in Learning by Doing: Learning activity is effective if students acquire real-life experiences. The knowledge acquired through doing something is permanent and not forgettable. That is why great educationists and philosophers like Rousseau, Mahatma Gandhi, Rabindranath Tagore, and John Dewey emphasized learning by doing.
- 12) Helps in Emotional Stability: While teaching, the teacher should control his emotions as well and more emphasis should be given to controlling the emotions of his or her students. If it is not controlled, then different emotions like anger, sorrow, and fear can hamper the learning of the students. So, good teaching always helps to train and sublimate the urges and emotions.
- **13) Means of Learning:** Good teaching prepares the children physically and mentally to learn. The effectiveness of learning depends on the attraction of teaching. So, teaching is termed as a means of good learning.
- 14) Not Tied to Any Method: A good teacher considers methods and devices as his or her servants, not as masters. Good teaching is not tied to any method as a teacher should select the teaching method and device according to the needs of the learner as well as the needs of the local situation. For example, the project method is not applied for all subjects, the discussion method is not recommended for all problems, and so on.
- 15) Reduces the Distance between Teacher and Students: For the effectiveness of teaching and learning, interaction between teacher and students is essential. Teachers should come out of their ivory towers and come as close to the students as possible. Good teaching increases intimacy between teacher and students and makes the process of teaching and learning effective.

16) Helps in Self-Learning: Good teaching inspires the students to self-learning. Teaching plays an important role in developing independent thinking capacity, self-confidence, and work ethics. All of these help the students to learn at their own pace.

STOP TO CONSIDER

Teaching is effective when teachers teach properly. There are different criteria or marks of good teaching. All the teachers must follow these criteria to make his or her teaching effective. "Teaching is a task of a teacher which is performed for the development of a child". Teachers should always follow some general and psychological principles while teaching.

1.5 Principles of Teaching:

Teachers can develop the innate power of children through their teaching. So, teaching is called a noble profession. Educationist Thomas P. Green viewed that "Teaching is a task of a teacher which is performed for the development of a child". Teachers should follow some principles while teaching. Principles of teaching are divided into two parts. These are:

- General principles of teaching and
- Psychological principles of teaching.
 Both these types of principles are explained below:

General Principles of Teaching:

1) Principle of Goal Setting: Teaching is an activity directed through specific aims and objectives. The teacher should fix the aims and objectives while he or she should teach a particular course of study. Teaching is not effective without an objective or goal. Without a goal, it is not possible to change the behaviour of the students.

- 2) Principle of Planning: Proper planning helps to make teaching-learning successful. The teacher should always plan his or her lesson before entering into class. Planning of a lesson includes the planning of teaching methods, teaching strategy, and teaching aids. Without proper planning, it is very difficult for teachers to teach a lesson.
- 3) Principle of Child-Centeredness: The child is the main centre of the education system. To teach the children, teaching methods and teaching aids are selected according to the needs, interests, aptitudes, and attitudes of the children. Thus, the education system of the present time is known as child-centred education.
- 4) Principle of Activity: One important principle of teaching is to facilitate learning activity. The child is active by nature. Educationist Froebel also emphasizes providing education through activity. Mahatma Gandhi also emphasized activity in learning. Children can learn by 3Hs i.e. head, hand, and heart.
- 5) Principle of Individual Differences: We all know that no two individuals in this world are the same. The thinking, attitude, and reasoning of every individual differ from each other. Again, the learning capacity of the children is also different. So, teachers should design, perform, and evaluate his or her teaching keeping given the principle of individual differences.
- 6) Principle of Linking with Life: One important aim of education is to prepare children for life. So, teaching should be essentially linked with the necessities and happenings in the actual life of the child. Pragmatic philosopher John Dewey said that the knowledge provided to students must be related to real-life situations.
- 7) Principle of Flexibility: Both time and society are very dynamic. So, the subject matter of education should be related to the changing times and society. Flexible subject matter also changes teaching methods. The teacher must be imaginative, resourceful, and creative to adapt himself and his teaching according to the changing teaching learning process.
- 8) Principle of Material Selection: Proper teaching learning materials should be selected based on the age of the students, teaching objectives,

- and teaching content. Proper teaching materials make the teachinglearning process easy and real.
- 9) Principle of Co-operation: Teaching-learning is a cooperative task. Both teachers and students cooperate in the classroom to make teaching and learning successful. From a wider perspective, the cooperation of teachers, guardians, and educational authority is needed for the all-round development of the personality of the child.
- 10) Principle of Creating a Conducive Environment: A conducive learning environment plays an important role in effective learning. To create a conducive environment in the classroom, teachers should treat all students equally. Apart from those environmental factors like proper seating arrangement, light, and ventilation, classroom instruction, and discipline also influence the teaching-learning process.

Psychological Principles of Teaching:

- 1) Principle of Motivation: Motivation plays an important role in the teaching-learning process. To arouse interest among the students, the teacher should try the create motivation. In this regard, Kelly opined that "Motivation is the central factor in the effective management of the process of learning". The teacher will try to do his best to motivate students in the lesson.
- 2) Principle of Stimulation: In the words of Burton, "Teaching is the stimulation, guidance, direction, and encouragement of learning". One major task of the teacher is to stimulate students with the help of a proper presentation of the subject matter. Ryburn also emphasizes in this regard that "the guidance of the teacher is mainly a matter of giving the right kind of stimulus to help him to learn right things in the right way".
- 3) Principle of Repetition and Exercise: There is a proverb that 'practice makes a man perfect'. In the same way, exercise and repetition of activity make the learning permanent. This principle of teaching is based on Thorndike's law of exercise. Repetition is essential for strengthening the connection between stimulus and response.

- 4) Principle of Readiness: Psycho-physical readiness of students plays a pivotal role in the teaching-learning process. According to this principle of teaching, the teacher should try to prepare the students to learn. Students can acquire knowledge effectively if he or she is ready to learn. The teacher must arouse the readiness of his students to learn a new topic.
- 5) Principle of Individual Difference: One important concept of psychology is individual difference. Intellectual capacity, learning capacity, problem-solving ability, motor ability, hopes and aspiration, interest, attitude, and reasoning capacity of an individual is different from others. Teachers always consider the individual differences of the students while teaching.
- 6) Principle of Creativity: Every child comes into this world with creative powers which is varied. To explore and develop this creative power of children is another principle of teaching. Teachers should provide opportunities for the students to explore things and events and find cause-effect relationships.
- 7) Principle of Rest and Recreation: Psycho-physical activeness is required in teaching the teaching-learning process. To become active in this process, rest and recreation are required. Fatigue, lack of attention, and monotony can be overcome by making appropriate provision for rest and recreation. Rest and recreation provide learners with refreshments and re-energize them.
- 8) Principle of Self-learning: The present education system places more importance on self-learning or self-education. Apart from providing knowledge and experiences in the classroom, teachers also prepare their students for self-learning. Self-learning provides independent thinking and it also develops the self-confidence of students. In this regard Galileo opined that "You cannot teach a man anything, you can only help him to find it himself".
- 9) Principle of Feedback and Reinforcement: One important principle of teaching is to provide feedback (knowledge of the results) and reinforcement (praise, grade, certificate, token money, and other incentives). Teachers can know their strengths and weaknesses through this process and also inspire the unsuccessful students for better learning.

10) Principle of Association: Psychologist Thorndike viewed that things we want to go together should be put together. It is generally observed that many things or ideas which we want to go together should be associated with each other. They should form a part of a process. This way, students can easily understand the relationship of the process.

Space for	r Learners
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CHECK YOUR PROGRESS
Que. 4: Why teaching is called a skilled job?
Que. 5: Mention any one psychological principle of teaching.

1.6 Summing Up:

- Teaching is the specialized application of knowledge, skills, and attributes
 designed to provide unique service to meet the educational needs of
 the individual and society.
- Teaching is a skilled job. With the help of skills, teachers can modify the behaviour of the students.
- Different marks of good teaching are: recognizing individual differences among pupils, being systematic and well-planned, democratic, helping to adjust to the environment, following laws of learning, sympathetic, easily motivating the students, cooperative, skilled job, selective, helping in learning by doing, helps in emotional stability, means of learning, not tied to any method, reduces the distance between teacher and students and helps in self-learning.
- General principles of teaching are the principle of goal setting, the
 principle of planning, the principle of child-centeredness, the principle
 of activity, the principle of individual differences, the principle of linking
 with life, the principle of flexibility, the principle of material selection,

the principle of co-operation and principle of creating a conducive environment.

Psychological principles of teaching are the principle of motivation, the
principle of stimulation, the principle of repetition and exercise, the
principle of readiness, the principle of individual difference, the principle
of creativity, the principle of rest and recreation, the principle of selflearning, the principle of feedback and reinforcement, and, the principle
of association.

1.7 Answers to Check Your Progress:

Answer to Q. No. 1: According to Henry C. Morrison, "Teaching is an intimate contact between a more mature personality and less mature one which is designed to further the education of the latter."

Answer to Q. No. 2: Informal teaching is related to different types of reallife experiences acquired by students in their day-to-day lives from different stakeholders.

Answer to Q. No. 3: The three poles of teaching are: objectives of education, content and students.

Answer to Q. No. 4: Teaching of teacher requires knowledge of the subject matter, capacity of classroom management, techniques to use methods, use of technology, etc. All these make teaching effective. Thus it is said that good teaching is a skilled job.

Answer to Q. No. 5: One important principle of teaching is to provide feedback (knowledge of the results) and reinforcement (praise, grade, certificate, token money, and other incentives). Teachers can know his strengths and weaknesses through this process and also inspire the unsuccessful students for better learning.

1.8 Questions and Exercises:

Short-Answer Questions

- 1. What is meant by teaching?
- 2. Write two important characteristics of teaching.
- 3. Why good teaching is democratic?

Long-Answer Questions

Space for Learners

- 1. Explain the characteristics of teaching.
- 2. Elucidate the marks or criteria of good teaching.
- 3. Discuss the general and psychological principles of teaching.

1.9 References and Suggested Readings:

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UNIT- 2 PHASES OF TEACHING

Unit Structure:

- 2.0 Introduction
- 2.1 Objectives
- 2.2 Phases of Teaching
 - 2.2.1 Pre-Active Phase
 - 2.2.2 Interactive Phase
 - 2.2.3 Post-Active Phase
- 2.3 Strategies of Teaching
- 2.4 Methods of Teaching
- 2.5 Devices of Teaching
- 2.6 Summing Up
- 2.7 Answer to 'Check Your Progress'
- 2.8 Questions and Exercises
- 2.9 References and Suggested Readings

2.0 Introduction:

Teaching denotes actions undertaken to bring about learning in another. It is an effective interaction between the teacher and the pupils. It is a professional activity and helps to bring about the harmonious development of students. The three phases of teaching, the pre-active, the inter-active, and the post-active phases help to make teaching-learning more productive and effective and bring about a positive attitude towards learning. The teacher has to translate the subject matter using devices, skills, methods, and techniques thereby generating motivation and morale and assessing the teaching through evaluations, supervision, and feedback.

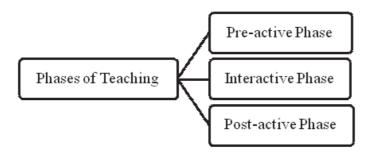
2.1 Objectives:

After going through this unit you will be able to-

- know the different phases of teaching,
- develop an understanding of different strategies of teaching,
- understand the different methods and devices of teaching.

2.2 Phases of Teaching:

Teaching is defined as dynamic as well as interactive, and several activities proceed to actual teaching the process involves numerous actions as well as many actions that follow up actual classroom teaching. To fulfil his teaching responsibility, a teacher has to carry out various types of teaching activities with his students, and for this, he has to go through the proper procedures related to systematic planning and implementation. To do all this, he has to proceed by arranging his teaching work in certain steps or stages. These steps or stages are called the teaching stages or phases of teaching. In 1966, Philip Jackson distinguished between the pre-active and inter-active phases of teaching. And thus Phases of Teaching is also called Philip Jackson's analysis of teaching. The three phases of teaching are the pre-active phase, Interactive phase, and Post-active phase.



Let us discuss each phase in detail.

2.2.1 Pre-Active Phase:

There are many activities related to teaching that teacher has to do before classroom teaching. In these activities, the teacher sets the objectives of classroom teaching according to his ability and experience. This phase is exclusively related to the analysis of the teaching task at the time of planning.

In the pre-active phase of teaching, the planning of teaching is carried out. This phase includes all those activities, which a teacher performs before classroom teaching or before entering the classroom. Pre-teaching consists essentially of the planning of a lesson. The planning of lessons needs to be seen in broader terms, not merely the designing of a lesson plan. Planning includes identifying the objectives to be achieved in terms of students learning, the strategies and methods to be adopted, the use of teaching aids, and so on. All the activities that the teacher does before entering the class are included here. For example, preparing lesson plans for the teacher is a preactive phase of teaching. The success of the interactive phase entirely depends on it. It includes all the activities the teacher does before he has a face-to-face meeting with the students. There are four operations in the Pre-active phase. They are as follows.

1) Formulation of Instructional Objectives

The initial task of this phase is concerned with why a teacher is to teach in the class. What type of knowledge students will receive in a 45 to 60-minute class period is termed the objective of the teacher.

The objectives are formulated by considering the following points.

- Socio-economic background and mental level of students
- The standard of the lesson and the class
- Resources available in the class
- Environment and its aspirations
- Socio-political philosophy of the nation

2) Making Decisions about the Subject Matter

The teacher will select the course material after determining the objectives of teaching. The teacher will see why this text is necessary for this course what level of motivation will be effective for the students and what methods should be used for their evaluation.

3) Arrangements of Ideas and Style of Teaching

After selecting the objectives and the subject matter by the teacher, it is very important to keep the different parts of the subject matter in order. This sequencing of the text should be kept psychologically so that the child can learn well.

4) Development of the Teaching Strategy

This includes an overall teaching strategy, to give a final look and revise what to perform in the class. Different strategies and techniques are selected for different elements of the subject matter and sometimes a combination of strategies is applied for the purpose. Selection of the strategies and techniques also depends on the age and psychology of the students.

2.2.2 Inter-Active Phase:

All those activities of teaching come under this phase step, which the teacher does after entering the class. All the activities related to the presentation of the text are included in it. A teacher has to use a variety of skills in the classroom. Out of these, classroom management skills and communication skills are very important. The skill of classroom arrangement is very important in the teacher's teaching work. When going to the classroom in school, the first thing to do is to use the skill of classroom management. Good teaching depends a lot on the skill of classroom organization. It is through this skill that an environment conducive to learning is created. For proper seating arrangement of the students in the class, the necessary equipment and arrangements (furniture, carpet, blackboard, chalk, duster), etc. have to be kept in mind. Arrangements should be made for the students to sit in the classroom keeping in mind their height, visual impairment, hearing impairment, etc. Arrangements should be made according to the educational activities, and physical and social activities of the class. After the preparation stage, the second stage is to move to the actual stage of teaching in this way.

The most important difference between the pre-active and interactive phases of teaching is that the pre-active teaching activities are done by the teacher himself after a lot of thought, but on the contrary, in the interactive phase, the teacher's behaviour is mostly related to the classroom conditions and the needs of the students. Directly being guided is going to happen spontaneously because the students are in front of the teacher. Teachers do what they think is appropriate in that situation at that time. There is also a difference between the pre-active and interactive phases of teaching the

events in the class happen very fast and the teacher has to run the activities at the same pace. While teaching a class, a teacher has to change the focus of his attention hundreds of times. During this stage, there is an interaction between the teacher and the learner. In this, the responsibility of the teacher is important; he takes care of the behaviour of the students and moves towards the desired behavior change. In this way, all the activities of textual presentation are included in it.

According to Jackson, in the inter-active phase, "the teacher provides pupils verbal stimulations of various kinds, makes explanations, asks questions, listens to students' responses and provides guidance."

The operations involved in this phase may be identified as follows:

1) Sizing up the Class

As soon as the teacher enters the class he throws a bird's eye view of the class and he comes to know in a moment the following things.

- What is the size of the class?
- Who are the students who will cooperate with him during teaching?
- Who are those who will be creating problems for him?

On the other hand, students also try to weigh the teacher visually, i.e., what is the worth of their teacher. This operation refers to the activity of perceiving the size of the class, and getting the feel of the moods of the learners. It is being made aware of how, many in the group are looking attentive, how many are negligent and disinterested, who are the sharper ones, and who are the troublemakers or slow at learning.

2) Diagnosis of the Learners

The second main step in the underlying process of teaching is to get knowledge of the level of the students. The teacher needs to know how much knowledge a student has of the subject and what the level of general knowledge is. For this, he takes the help of various questions. The knowledge and level of the students can be easily known through the questions on the content.

3) Treatment given to the Learners

When a teacher does some activities by asking questions or by showing some material aids in the class, students react to these stimuli leading to some responses from the teacher, i.e., reinforcing the students' proper response. It includes both verbal and non-verbal actions and reactions. Learners respond to what the teacher says or does, and the teacher responds to what the learner says or does. This action-reaction has special importance in teaching. The following functions are done under these heads:

(i) Selection of stimuli:

Motivation is very important in the action-reaction between teacher and student. Therefore, the teacher has to decide which motivator is effective during teaching work and which is not. It is through this motivation that the expected conditions of teaching can be created. While presenting the motivators, the teacher must keep in mind the order of teaching.

(ii) Presentation of stimuli:

The teacher also has to see in which context and in what form these motivators are to be presented. They will be more useful if presented in the same context and format.

(iii) Reinforcement:

It is also very important to do feedback and reinforcement in teaching for the increase of response. They help in teaching. It is of two types, positive and negative. In 'positive' reinforcement the teacher motivates the students by praising, praising, awarding, etc. Due to this, the possibility of taking expected and desirable actions increases a lot. Negative reinforcement includes scolding, punishment, humiliation, etc. Due to this, there is no possibility of unwanted actions happening again. The purpose of both positive and negative reinforcement is to improve the behavior of the students.

(iv) Use of devices:

Generally, with the help of questions, the teacher informs about the following aspects:

- Abilities of the students
- Attitude and interests of the students.
- Educational background of the students.

The teacher receives information regarding the abilities and interests of the students through his indirect communication and starts his teaching responses keeping that in mind. The activities that take place under teaching can be mainly divided into two parts- Initiation, and Response. Both these activities are performed between the student and the teacher, which is called verbal interaction. The teacher initiates some activities, the student responds to them or the teacher responds to the student's initiation. In this way, the interactive process of teaching goes on. All the activities of teaching can be analyzed in the form of verbal and non-verbal interaction. The main objective of the activities of teaching is to change and improve the behaviour of the students. Therefore, the expected changes and improvements can be brought in the students only by using proper techniques of Feedback and Reinforcement.

2.2.3 Post-Active Phase:

The last step in the teaching process is related to the teaching or evaluation of students. Teaching remains incomplete without evaluation. Under this stage, the teacher evaluates the knowledge given by various formal and informal methods and checks that in which direction and to what extent the desired behaviour change of the students has taken place. Teaching is conducted to achieve an educational objective. Through evaluation, the teacher finds out how successful the teaching was about the objectives, that is, to what extent the student could achieve the educational objectives. Measurement and evaluation of the desired behaviour change in the students, in this stage of teaching; the teacher does it with the help of oral or written, or practical tests. It is a phase of evaluation and follow-up of the operation at the pre-active and inter-active phases. Only after the evaluation, the teacher comes to know whether the objectives are achieved or not. The operatives involved in this phase are discussed below:

1) Determining the Exact Dimensions of the Behaviour

The teacher defines or determines the different dimensions of behavioural change based on the criteria of desirable behaviour. The teacher compares the real behaviour change of the students with their expected behaviour. If there is a greater similarity between the two, it is assumed that objectives are achieved e.g., after teaching the lesson on 'Parliament' to the

students, the teacher expects that the students must have learned about the functions, houses, and officials of parliament.

2) Using Appropriate Testing Devices and Techniques

From the list of available testing tools, those, which are suitable for testing the attainment of the terminal behaviour, are administered. These tools may include different types of paper-pencil tests, standard criterion reference tests, teacher-made informal tests, aptitude tests scales, etc.

3) Changing the Strategies of Teaching

The results of the tests, thus obtained enable the identification of those terminal goals that were not attained or those that were partly attained. By these tests, the teacher comes to know about the achievement of students on one hand, and on the other hand, he can also know the effectiveness of his teaching strategies. These instruments can also help the teacher to know his shortcomings. When a teacher is unable to identify the terminal goal (behaviour) he may again identify his teaching strategy, review his method and teach again review his class and change his teaching styles, and judge the entry behaviour of the students again to reach the terminal behaviour.

CHECK YOUR PROGRESS
Que. 1: Who developed the concept of phases of teaching?
Que. 2: What is meant by pre-active phase of teaching?

2.3 Strategies of Teaching:

Teaching strategies are made up of two words, teaching + strategy. Teaching is an interactive process carried out by teachers and students in classroom situations to achieve desired objectives. Strategies indicate planning, policy, and skills. According to The Collin English Gem Dictionary,

strategy means war art and war skills. It is mostly used in war in the context of proper placement of the army and the art of fighting. The word 'strategy' of war science has been taken in educational technology, are those which are carried out by the teacher in the classroom situations to achieve his/her objectives and to bring about desired changes in the behaviour of the students.

In the words of Davies, "Strategies are broad methods of teaching".

According to Stones and Morris, "Teaching strategy is a generalized plan for a lesson which includes desired learner behaviour in terms of goals, instructions, and an outline of planned tactics necessary to implement strategy".

According to Mangal and Mangal, "Teaching Strategies may stand for the plans means, and specific ways especially devised and employed by the teachers for guiding, directing, and showing the path to the learners for the realization of the set instructional or teaching-learning objectives."

In the words of Medley, "Teaching strategy refers to sets of decision rules developed by teachers to attain an instructional goal."

The nature of teaching strategies can be understood through the following characteristics.

- (1) Teaching strategies help in the general planning for the teaching of a particular subject.
- (2) Teaching strategies are the methods of work and they help the students to understand the objectives of the prescribed teaching and learning.
- (3) A teaching strategy is a type of plan, program, or structure of teaching. Following this strategy will help to achieve the intended objectives of teaching more effectively.
- (4) Well-planned teaching strategies are required for the successful implementation of teaching strategies.
- (5) Teaching strategies are based on psychological principles and methods.

(6) Teaching strategies are used to make teaching enjoyable, playful, and encouraging.

Types of Teaching Strategy:

Teaching strategies are applied to achieve the goals and objectives of education. The purpose of education is to bring about the desired change in the behaviour of students. Various measures are taken in teaching to bring about this change. Teaching strategies are one such system. Teaching strategies can be divided into two categories based on the classroom environment and teacher attitudes. Such as-

- (1) Autocratic strategy and
- (2) Democratic Strategy.

Both these strategies are discussed below:—

(1) Autocratic Strategy:

Traditional teaching strategies are autocratic strategies and are also called convergent approaches. These teaching strategies are content and teacher-centered. When applying these strategies, the teacher plays a primary role and the students play a secondary role. Teachers try to impart knowledge externally without focusing on the interests, attitudes, skills, and needs of the students. In such circumstances, students do not have the opportunity to express their feelings. Autocratic strategies focus only on the mental development of students, not on cognitive objectives and team development. These strategies are discussed below:

- a) Lecture: One of the main autocratic strategies of teaching is lecture. This strategy can also be referred to as a teacher-centric or divergent approach. There are various ways in which teachers can deliver lectures to students. In this method, the teacher plays an active role and the students play a passive role.
- **b) Demonstration:** Demonstration is a more effective strategy when students are involved in a problem or topic and want solutions. Teachers play a major role in providing demonstrations.

- c) Tutorials: The tutorial is a sub-section of the class where the teacher can solve the problems of a small group of students through individual teaching. There are three types of tutorials- group tutorials, inspection tutorials, and practical tutorials. Tutorial develops positive attitudes and values of the students. It helps students to solve problems, make connections, etc.
- d) Programmed Instruction: This strategy is a self-directed technique in which students are given individual instruction or learning experiences. In this learning, the learning content is divided into a series of logically small groups. This learning is directly related to Thorndike's outcome policy. The five basic principles of this learning are the Principle of Small Steps, the Principle of Active Responding, the Principle of Immediate Reinforcement, the Principle of Self-Pacing, and the Principle of Student Testing. This learning helps students to move forward at their own pace.

(2) Democratic Strategy:

Democratic teaching strategies have been developed based on modern approaches to education. These teaching strategies are student and situation-focused. Instead of the one-sided traditional teaching provided by teachers, it provides opportunities for students to express themselves. The student plays a major role in the teaching of this strategy and the teacher plays a secondary role. Democratic teaching strategies facilitate the self-expression and development of latent and underlying strengths and abilities of the individual. Below are some important democratic strategies—

a) Project Method: William H. Kilpatrick, a disciple of the American educational philosopher John Dewey and a professor at Columbia University, developed the project method. This method was developed as a result of the philosophy of pragmatism. According to William Kilpatrick, "A project is a wholehearted purposeful activity proceeding in a social environment". In this approach, students democratically prepare and implement educational plans to solve the problems of society. The project method is suitable for secondary-level students. The different steps of the project method are as follows—

- Teachers should provide the appropriate situation for the students to understand the problem.
- Both the teacher and the students should discuss together and prepare the objectives of the project in this context so that the work can be carried out properly.
- All the actions should be planned to achieve success in the project.
- Students should perform at this level according to their respective roles. When performing activities at this level, the teacher should pay attention to the progress of the students.
- This stage is where the work done by the students is judged or evaluated.
- All information should be recorded from project planning to judgment.
- Finally, the project should be evaluated. This stage assesses how the students perform.
- b) Heuristic Method: The heuristic method is one of the democratic strategies of teaching. Prof. Armstrong invented this method. The word 'Heuristic' comes from the ancient Greek 'Heurisco' which means 'I find out' or 'I discover'. Armstrong's method of teaching science was later applied to other subjects. According to this method, students will find or discover the learning content in their efforts. Here, students develop self-learning through self-action. This method can in still in students the desire to seek knowledge through scientific approaches and experimental efforts.
- c) Questioning-Answering Strategy: Questioning-Answering strategy is used in all types of teaching. Questions and answers cannot be separated. The two move together. In teaching, both teachers and students ask questions and both answer. Therefore, teachers should know the techniques of asking students questions, encourage students to ask questions and answer them satisfactorily. The great philosopher Socrates invented this technique. No subject can be successfully taught to students without questions and answers. Questions and answers can make a person's thinking more orderly and organized.

- d) Review: Review means to check again. This democratic teaching strategy allows students to re-analyze the complex aspects of the learning content. It allows students to be involved in learning individually or in groups in intellectual activities. Teaching a subject does not end at the presentation level. Re-examination is a way to re-examine the weaknesses of students after refeeding or testing. This strategy is essential for students pursuing higher education.
- e) Discussion: Discussion is a form of democratic strategy in which teachers and students or a group of students analyze their views on a topic. Both teachers and students play an active role in this strategy. Before starting the discussion, all the teachers and students participating in the discussion should have at least a small understanding of the topic to be discussed. Discussions can be of various types—(i) formal discussions and (ii) informal discussions.
- f) Role Playing: Another strategy of democratic teaching is roleplaying. Role play is more useful when students expect to interact effectively with others with the help of technological information. In role-play, two or more students are assigned situations and roles. Selected students put themselves in roles and attempt to solve problems. Role-plays are performed by small or large groups of students. This technique is used to present the problem dramatically. Students participate in this strategy in group discussions of the topic.
- g) Seminars: Seminars are a high-quality function of democratic education strategy. Here, students, teachers, and individuals sit together and exchange their views and ideas formally and systematically. It allows individuals to read research papers on teaching (learning) stages and strategies prepared on specific topics one by one and the topics are discussed and conclusions are drawn from the discussions. This has the potential to benefit all participants. Such seminars are usually conducted jointly by students, teachers, and education authorities or other organizations may also conduct seminars on appropriate topics at any time.

h) Brain Storming: It is a form of group teaching that develops creativity. This approach to teaching believes that students can learn more in groups than in individual teaching. This method is called brainstorming because the students create a storm-like situation in their brains by asking questions and answering them. In this method, students are divided into small groups. Students are presented with questions on a problem and are required to provide solutions within a given time frame. The underlying idea of this approach is that students can learn more freely and successfully in a question-and-answer environment in groups rather than studying any problem or topic individually. They can correct and improve their own misconceptions and limited knowledge and experience. Such activities help students to develop creative thinking collectively.

2.4 Methods of Teaching:

Teaching methods are those methods with the help of which a teacher starts and completes the work of teaching and learning in the class. According to the teaching method, there is interaction between teachers and students in the classroom. The more efficiently the teacher uses the teaching method, the better the environment is generated in the classroom and the more effective the teaching-learning process is.

The teaching method is the correct answer to the question of "How to Teach" the curriculum and syllabus in the classroom. It creates a good and effective policy and rules to convey any subject or topic to the students. The teaching method is considered a part of educational technology and educational equipment. Education is a social process, due to which teaching methods are created or used keeping in mind the social needs.

Some of the salient features of the teaching methods are:

- Teaching methods are used to conduct the course to the students correctly and clearly.
- In teaching methods, more importance is given to the objectives of the curriculum than the objectives of teaching.

- In teaching methods, proper help of sub-methods of teaching is also taken.
- Teaching methods are used during the interaction between the students and the teaching.
- The teacher gets the answer to how a subject has been taught, how to teach it, or how to convey it to the students only through these methods.
- More importance is given to experimental work and presentation in teaching methods.

Importance of using Teaching Methods

- With the use of teaching methods, a sense of stability can be brought into the knowledge of the students.
- Using this, students can recall the acquired knowledge when the time comes.
- It works to reduce the complexities of the topic and subject.
- The class remains disciplined by using the teaching method.
- By its use, a cordial relationship is created between the student and the teacher.
- By using the methods properly and efficiently, the interest of the students towards the subject or course can be increased.
- For its use, the mental, intellectual, and spiritual development of the student can be done simultaneously.

Types of Teaching Methods

Where, how, and in what manner which teaching method is to be used depends on the skill of the teacher. There are many types of teaching methods lecture method, demonstration method, lecture-demonstration method, question-answer method, etc. Some of the important teaching methods are stated below:

• Lecture Method:

This is the method that every teacher uses to clarify the topic. This method can be used by the teacher outside the classroom as well. This

method is an ancient method. In ancient times, in Gurukul, Gurus used to use this method to teach their disciples by sitting in a natural environment. This method is considered to be the simplest. The biggest advantage of this method is that it keeps the class disciplined.

Demonstration Method:

The demonstration method helps the teacher to explain clearly to the students. In the demonstration method, the teacher reveals the scenes related to the topic among the students and also keeps explaining it to the students by showing those scenes so that the students take an interest in the topic and their knowledge becomes permanent. This is a psychological method.

Question Answer Method:

This method was propounded by Plato's guru Socrates. Through the questioning method, the thinking level of the students is expanded and it also develops the memory power of the students. With its use, the class remains disciplined and it also works to increase students' interest in the subject. By using this, individual differences between students can be identified and students can be differentiated (high, average, low). This teaching method is one of the most widely used teaching methods.

• Inductive Method:

This method was propounded by Aristotle, the guru and father of politics. In the induction method, before starting the teaching work or starting the topic, examples related to prior knowledge are presented to the students so that the topic to be taught is reached, that is, this method moves from known to unknown.

Deductive Method:

The deductive method was propounded by Aristotle's guru Plato. This method is opposite to the induction method. This method moves from the unknown to the known. In this, first of all, some formula or some principle is presented among the students and then the students are taken to that level with which the student is familiar, that is, in this method, the students are told about the principles and then their meanings are explained. This method is also seen as the basis of philosophy. In this method, students are taken from general to specific, from knowledge to unknown, and from micro to macro.

Montessori Method:

Dr. Maria Montessori developed this method of teaching which is primarily concerned with young children. In this method, emphasis is given to inner development, complete freedom, auto or self-education, sense training, individual development, formation of good habits of the students, use of didactic apparatus, etc.

• Kindergarten Method:

The inventor of this method was the German educational philosopher F. W. Froebel. According to Froebel, this method is characterized by the fact that the child learns through his nature. In this kindergarten system, special emphasis is placed on the creativity of the child. Froebel considered a school as a small society. Therefore, he argued that children should be allowed to acquire social knowledge by participating in various social activities.

• Project Method:

This method was developed by the American educational philosopher John Dewey. This method primarily focussed on two aspects. These are: (i) learning by doing or learning by problem-solving and (ii) recognition of experiences. Dewey emphasized that students should acquire experiential knowledge by planning various problems related to their real lives rather than the teacher giving instructions to the students.

• Game Method:

In modern times, to provide primary education, children and infants are provided education through games. Henry Foldwell Cook is seen as the exponent of this method. This is an interesting method in which the child expresses his full interest due to which the knowledge gained becomes permanent and the student can store that knowledge in his mind for a long time.

Teaching methods are how proper use of the quality of education can be increased and the objectives and goals of education can be fully achieved. The teaching method is a new need of modern education. In the present circumstances, it is very important to change the methods of teaching from time to time, but all the teaching methods are beneficial only when the teachers use them efficiently. Otherwise, the level of education will continue to decrease instead of increasing.

STOP TO CONSIDER

There are many types of teaching methods. They are lecture method, demonstration method, lecture-demonstration method, question-answer method, inductive method, deductive method, Montessori method, project method, game method etc.

2.5 Devices of Teaching:

Teaching is a dynamic and planned process. The aim of teaching is that the student should get maximum learning experience. The teacher can make teaching effective and easy by using various teaching devices as per the subject and situation. Different techniques of teaching e.g. question-answer technique, example technique, interpretation technique, and explanation technique, etc. are all helpful in some teaching methods; similarly, various devices of teaching are also helpful in some way or the other in teaching techniques. In other words, teaching devices are fundamentally the cornerstone of learning structure.

In the words of Raymond, "Devices are certain external forms or modes which teacher's instructions may from time by time assume".

Various Teaching Devices:

Some of the important devices of teaching are as follows:-

- 1. Exposition: The purpose of exposition is to present the new knowledge to the students in such a beautiful and comprehensible manner that they can take it to heart. The teacher uses this device when he comes to know that his students have little knowledge about the subject he is going to teach. Thus exposition means to uncover, reveal, show, bring to light, and provide new information to the students.
- **2. Explanation:** Explanation means to clarify, to propound, to remove ambiguity, and to develop wisdom. Explanation is commonly used in the teaching of literature, history, geography, sociology, political science, economics, and science.

- 3. Narration: The teacher needs to learn the device of narration to give a clear understanding of ideas, concepts, rules, events, etc. to the students. A teacher who can give effective narration can certainly make his teaching effective. The purpose of narration is to mark a clear picture of a phenomenon in the minds of the students so that they can successfully assimilate its knowledge. This device has special significance in the teaching of history because the teacher can make the students aware of various historical events only by giving details about them.
- 4. **Description:** To describe means to define or depict. Depicting the basis or elements of an object by words is called description. A description is a form of explanation. By describing a war in teaching history, an instrument in teaching science, and a region in teaching geography, the teacher imprints their picture in the minds of the students. Description device is used in the teaching of all subjects to a greater or lesser extent.
- 5. Illustration: To illustrate means to explain, explain, illustrate, or quote. In teaching, illustration is used in a technical sense. This not only includes the use of pictures, maps, models, charts, examples, and comparisons but it also includes the use of various types of instruments, such as blackboard, scientific and geographical instruments, and psychological instruments and diagrams. In short, illustrations include everything that influences the student's emotions and imagination, stimulates his interest and curiosity, and thus provides clarity to the part described.
- 6. Questioning Device: Asking questions is an important device of teaching. The success of teaching largely depends on the skill or art of asking questions. Questions are asked to test the students' prior knowledge, that is, questions are asked to find out what the students already know. Asking questions is an art that the teacher should not only learn him but should also teach to the students. Teachers' behaviour towards questions and the answers are given have a significant impact on teaching.

- 7. **Answering:** The teacher's behaviour towards students' answers is as important as his asking questions. One should be careful in front of students' answers in the same way as while asking questions.
- 8. Assignment: Assignment is work that is given to a student or class. Mainly it is used as a supplement to the teacher instead of teaching. It provides expert guidance to the students in their curricular activities.
- **9. Home Work:** Home study or homework is work that is done outside normal school hours. This is often done by students at home too. Homework develops the habit of hard work and regular work. This is a habit which is very useful in gaining knowledge.
- 10. Blackboard: The blackboard is a very important tool in the hands of the teacher. It is an important asset of the teacher in classroom teaching which has a direct impact on the students and strengthens their attention and concentration.
- **11. Textbook:** The textbook device is used as a tool, support material, and source of information. The teacher should use textbook devices to make his teaching interesting, effective, and successful.
- **12. Reference Books:** Reference books are called storehouses of information. It is used to make up for the deficiency of the textbook material. Apart from these devices of teaching, there are certain fixing devices of teaching too. The fixed devices of teaching are as follows:
 - Drill: An important device among the fixing devices used in teaching is the drill device. It is widely used in education.
 The drill is a teaching device for symbolic learning such as algebra, English grammar, and foreign language learning.
 - **Review**: Review is also an important device to make learning permanent. It is used to master facts and skills that are essential for both school and life.
 - Recapitulation: Recapitulation is another fixing device that has a special place in the teaching-learning process. It is required in all lessons. Recapitulation means revisiting or repeating the acquired knowledge. In this, previously learned knowledge is reviewed and reproduced.

• Repetitive Practice: A repetitive practice device as a fixing device has an important place in the teaching-learning process and its stabilization. As the name suggests, this device is concerned with the repetition of the learned material. This is a useful device for the learner because repetition is essential for permanent learning.

STOP TO CONSIDER

Teaching devices are fundamentally the cornerstone of learning structure. Some of the important devices of teaching are Exposition, Explanation, Narration, Description, Illustration, Questioning device, Answering, Assignment, Home work, Blackboard, Textbook reference books etc.,

CHECK YOUR PROGRESS Que. 3: Who has developed the project method? On what aspects it has focussed on?
Que. 4: What is meant by the Heuristic method?
Que. 5: Seminar is a democratic strategy. (Write true or false)
Que. 6: Democratic teaching strategies are teacher-oriented. (Write true or false)

2.6 Summing Up:

• In 1966, Philip Jackson distinguished between the pre-active and interactive phases of teaching. And thus Phases of Teaching is also called Philip Jackson's analysis of teaching. The three phases of teaching are the pre-active phase, Interactive phase, and Post-active phase.

- In the pre-active phase of teaching, the planning of teaching is carried out. This phase includes all those activities, which a teacher performs before classroom teaching or before entering the classroom.
- All those activities of teaching come under the interactive phase, which
 the teacher does after entering the class. All the activities related to the
 presentation of the text are included in it.
- The post-active step in the teaching process is related to the teaching
 or evaluation of students. Under this stage, the teacher evaluates the
 knowledge given by various formal and informal methods and checks
 that in which direction and to what extent the desired behaviour change
 of the students has taken place.
- According to Stones and Morris, "Teaching strategy is a generalized plan for a lesson which includes desired learner behaviour in terms of goals, instructions, and an outline of planned tactics necessary to implement strategy".
- Teaching strategies can be divided into two categories based on the classroom environment and teacher attitudes. Such as Autocratic strategy and Democratic Strategy.
- The teaching method is the correct answer to the question of "How to Teach" the curriculum and syllabus in the classroom. It creates a good and effective policy and rules to convey any subject or topic to the students.
- The teacher can make teaching effective and easy by using various teaching devices as per the subject and situation. In the words of Raymond, "Devices are certain external forms or modes which teacher's instructions may from time by time assume".

2.7 Answer to 'Check Your Progress':

Answer to Q. No. 1: Philip Jackson developed the concept of phases of teaching

Answer to Q. No. 2: In the pre-active phase of teaching, the planning of teaching is carried out. This phase includes all those activities, which a teacher performs before classroom teaching or before entering the classroom. Pre-teaching consists essentially of the planning of a lesson. The planning of

lessons needs to be seen in broader terms, not merely the designing of a lesson plan.

Answer to Q. No. 3: The project method was developed by the American educational philosopher John Dewey. This method primarily focussed on two aspects. These are: (i) learning by doing or learning by problem-solving and (ii) recognition of experiences. Dewey emphasized that students should acquire experiential knowledge by planning various problems related to their real lives rather than the teacher giving instructions to the students.

Answer to Q. No. 4: The Heuristic method is one of the democratic strategies of teaching. Prof. Armstrong invented this method. The word 'Heuristic' comes from the ancient Greek 'Heurisco' which means 'I find out' or 'I discover'. Armstrong's method of teaching science was later applied to other subjects. According to this method, students will find or discover the learning content in their efforts. Here, students develop self-learning through self-action. This method can in still in students the desire to seek knowledge through scientific approaches and experimental efforts.

Answer to Q. No. 5: True.

Answer to Q. No. 6: False.

2.8 Questions and Exercises:

Short-Answer Questions

- 1. What are the phases of teaching?
- 2. Write the opinion of Jackson on the interactive phase of teaching.
- 3. Write the characteristics of the teaching strategy.
- 4. Why teaching methods are important for a teacher?

Long-Answer Questions

- 1. Explain the different phases of teaching with appropriate examples.
- 2. Write elaborately about teaching devices.
- 3. Discuss the democratic teaching strategies important for a primary school.
- 4. Describe five important teaching methods with appropriate examples.

2.9 References and Suggested Readings:

Space for Learners

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UNIT-3

NATURE OF LEARNING

Unit structure:

- 3.0 Introduction
- 3.1 Objectives
- 3.2 Meaning of Learning
- 3.3 Aims of Learning
- 3.4 Nature of Learning
- 3.5 Concept of Teaching-Learning Process
- 3.6 Steps in the Learning Process
- 3.7 Summing Up
- 3.8 Answer to 'Check Your Progress'
- 3.9 Questions and Exercises
- 3.10 References and Suggested Readings

3.0 Introduction:

Learning is another name for development. Through learning ability, humans have achieved superiority in the animal kingdom. The scientific study of the learning process has naturally made human development more accurate, faster, and better. Therefore, there is no end to the extensive study, testing, and development work of learning experts. In educational psychology, learning is the focus of study. Educational psychology can therefore be generally described as the science of learning. This learning can elevate man from animality to humanity and finally to divinity. The life structure and progress of life from birth to death take place through this learning. It is learning that has made man from the stage of savagery to better-functioning skills in the present complex situation. Nowadays, as human efficiency and skills become more complex, the need for learning and its improvement has naturally increased. This unit attempts to simplify the nature and steps of learning.

3.1 Objectives:

After going through this unit you will be able to-

- *know* the meaning of learning,
- *develop* an understanding of the nature of the learning process,
- understand the concept of the teaching-learning process,
- examine the different steps in the learning process.

3.2 Meaning of Learning:

Learning is a lifelong continuous process that starts from the birth of an individual and continues till the time of death. Simply learning means the modification of human behaviour. Human behaviour is modified with different experiences and training. These experiences may be direct or indirect.

The instinctive behaviour of human beings is not learned. Through experience and training, this behaviour is modified which enables us to adjust properly and effectively to the new environment. Everyone wants to acquire new behaviour, skills, activities, and new experiences to adjust properly and effectively to the new situation. Throughout life, human beings change, modify, and improve their crude instinctive behaviour. This change, medication, and improvement are called learning.

A complete understanding of the meaning of 'learning' needs the views of psychologists in this regard. Some of the definitions provided by psychologists regarding the meaning of learning are mentioned below:

- In the words of Gates and others, "Learning is the modification of behaviour through experience".
- According to Henry, P.Smith, "Learning is the acquisition of new behaviour or strengthening or weakening of old behaviour as a result of experience".
- According to Crow and Crow, "Learning is the acquisition of habits, knowledge, and attitudes. It involves new ways of doing things, and it operates in an individual's attempt to overcome obstacles or to adjust to new situations."

- To quote Skinner, "Learning is the process of progressive behaviour adaptation."
- In the words of Munn, "To learn is to modify behaviour and experience."
- According to M. L. Bigge, "Learning may be considered as change in insights, behaviour, perception, motivation or a combination of these."
- In the words of Pressey, Robinson & Horrocks, "Learning is an episode in which a motivated individual attempts to adopt his behaviour so as to succeed in a situation which he perceives as requiring action to attain a goal."
- In the words of Hilgard, "Learning is the process by which an activity originates or is changed through reacting to an encountered situation, provided that the characteristics of the changes in activity cannot be explained on the basis of native response, tendencies, maturation or temporary states of the organism (e.g. fatigue or drugs, etc.)."

3.3 Aims of Learning:

The main aim of learning is to modify the instinctive behaviour of human beings. There are some other aims of learning also. These are mentioned below:

- One important aim of learning is to help the individual to adjust to the new situation. With the help of learning, an individual can adjust himself to new situations very easily.
- Another aim of learning is to develop a balanced personality of the individual. The process of learning brings all round development of the personality through experiences and training.
- To attain teaching-learning objectives is another aim of learning. This objective can be effectively reached through the help of learning and consequently, children can be made to acquire essential knowledge, skills, applications, attitudes, interests, etc.

- Another aim of learning is to proper growth and development of an individual. Learning helps in reaching one's maximum growth and development in different aspects such as physical, mental, intellectual, emotional, social, moral aesthetic, language, etc.
- Solving different real-life problems is another aim of learning. Learning helps individuals to solve different problems in real life. It makes one's life happy.

STOP TO CONSIDER

Learning is the modification of behaviour through experience and training. It is a lifelong continuous process that starts from the birth of an individual and continues till the time of death. To modify the instinctive behaviour of human being is the main aim of learning.

3.4 Nature of Learning:

The comprehensive nature of learning may be understood with the help of the following characteristics of learning.

- Active Process: Learning is termed an active process because, without the activeness of the learner, it is not possible to learn something.
- Adjustment: Learning is a process of adjustment of an individual in his environment. With the help of learning, one can adjust to a new situation very easily.
- Problem Solving: Every individual faces different problems in their day-to-day life. Learning helps the individual to find out the problem properly and with the help of experience and proper education one can solve his/her problem.

- Goal-Oriented: Learning is always a purposive and goal-oriented process. Men used to learn with a clear goal or purpose in mind to achieve. Learning helps to achieve its goal.
- Continuous Process: Learning is a lifelong continuous process. It starts from the birth of an individual and continues till the time of death. People learn new experiences every day of his/her whole life.
- Modification of Behaviour: Learning is a process through which the behaviour of a human being is modified by experiences and training. When people learn something, it helps them to modify his/her behaviour.
- **Based on Maturation:** The learning of an individual is always based on psycho-physical maturation. More maturity may result in more capability to learn. Immaturity indicates unfit to learn.
- **Depend upon Motivation:** Learning is always depending upon motivation. It gives readiness to the learner to learn something. Learning effectiveness is the result of the motivation of the learner.
- Habit Formation: Sometimes learning is based on habits also.
 Habitual activity makes learning permanent.
- Individualized Activity: All people in this world do not have equal ability to learn as every individual in this world is not the same. That is why learning is termed an individualized activity.
- Intellectual Activity: Learning is also termed an intellectual activity.
 Learning helps individuals to solve different problems, adjust to new situations, and create something new or innovative.
- The bond between Stimulus and Response: Learning is the establishment of the bond between stimulus and response. Without the bond between stimulus and response, it is not possible to learn something.

CHECK YOUR PROGRESS	Space for Learners
Que.1: What is learning?	
Que.2: Mention one objective of learning.	
Que.3: 'Learning depends on motivation'- Explain briefly.	
5 Concept of Teaching-Learning Process:	

The teaching-learning process is as old as human civilization in this world. Teaching-learning is a very complex as well as interesting process. Teachers and students are related to this process. This process is the process of exchanging knowledge and experiences. When learning is effective, teaching is also effective. Teaching teaching-learning process is a mutual activity between teachers and students, the purpose of which is learning-oriented.

In the words of J.C. Aggarwala, "Teaching learning process is a means through which the teacher, the learner, the curriculum and other variables are organized in a systematic manner to attain pre-determined goals and objectives".

According to Bernard, "In the teaching-learning process, teachers and students encourage learning".

Teaching-learning provides a means for society to train the young generations in a selected environment (for example school, college, and university) as quickly as possible to adjust themselves to the environment where they live. Teaching-learning has four aspects. These are teacher, student, learning process, and learning situation. The effectiveness of all these aspects makes the teaching-learning process successful.

Nowadays, classroom transactions between teachers and students have drastically changed. Teachers use different strategies and methods to develop the inherent capabilities of children. At present apart from classroom transactions, students can learn at different other places of educational institutions like libraries, and laboratories, and also through different activities like discussion, seminars, extempore speech, debate competitions, group discussions, etc. The teaching-learning process is influenced by the totality of the situation. Teaching learning will be effective and fruitful when the total teaching-learning situation is related to the life situation.

The teaching-learning process has a three-way communication cycle. These are:

Communication Cycle	Steps Involved in the Cycle
Communication from the	Educational Objectives and Contents
teacher to the learner	Information Presenting
Communication from the learner to the teacher	Information receiving
	Information processing
	Responding
Communication again from the teacher to the learner	Diagnosing
	Evaluating
	KR* information Presenting

*KR is a kind of feedback information provided to students by the teacher for their behaviour; such as 'good', 'wrong', 'no', 'well done' etc.

Characteristics of Teaching Learning Process:

Some characteristics of the teaching-learning process are mentioned below:

- Teaching learning is a complex social and psychological process. It
 is complex because if the students is not want or are ready to
 learn, then the teacher can't teach. To learn something, psychophysical readiness is needed.
- The teaching-learning process has pre-determined aims and objectives. To achieve these aims and objectives, interaction between teachers and students is mandatory.

- The teaching-learning process is formal as well as informal. Formally
 from educational institutions and informally from real-life situations
 people learn and acquire knowledge.
- The teaching-learning process is a tri-polar communication process.

 These three poles are teacher, students, and teaching environment.

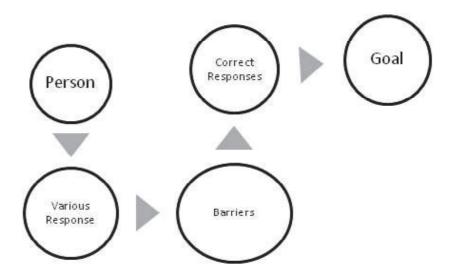
 All these three poles make the teaching-learning process effective.
- Teaching learning is an interconnected process. One is always dependent on others. Teaching is incomplete without learning and learning is incomplete without the discussion of teaching.
- The teaching-learning process helps the learners to adjust to the social environment. With the help of new knowledge and experiences, one can adjust to new situations.
- Teaching learning activities improve the interaction between teachers and students. This interaction motivates the teachers to teach effectively and students to make the acquired knowledge permanent.

3.6 Steps in the Learning Process:

Learning is a continuous, comprehensive, and lifelong process due to which there is a change in the behaviour of the person. Learning is not accidental; rather it requires the accumulation of various experiences. Learning is a conscious mental process that is initiated by some need or motivation. When a person learns a new thing, the object that attracts him is the goal. Some obstacles are also experienced in achieving it. Thus the process of learning shows several stages of analysis. For example- when the child feels the need for food due to hunger impulses, he reaches to the almirah while searching for food, where the box of sweets is kept at a height. The goal of the child is to get the box of sweets, but due to the high height, he feels an obstacle in getting that box and tries to get it by standing on a stool, chair, or post. In this way, after being successful in his objective, he learns how to reach the object kept at a higher height, and in the future, he uses this learning to solve other similar problems.

STOP TO CONSIDER

Teaching learning process is a means through which the teacher, the learner, the curriculum and other variables are organized in a systematic manner to attain pre-determined goals and objectives. It is a tri-polar communication process. The process has pre-determined aims and objectives.



The relationship of these stages has been described by Miller and Donald in this way-to learn, a person should need something, he should see something, understand something, he should do something and finally, he should achieve something.

The different steps of the learning process are described below:-

1) Motivation: There is some motivation behind every work of a person. Innumerable human needs are not easily satisfied, and to fulfill them he/she has to be active. Therefore, motivation is that dynamic source of power, which provides strength to behaviour and inspires the child to do something and this motivation takes the person towards his/her objective.

- 2) Goal Oriented: Learning is always goal-oriented. No action of a person is without purpose. Therefore, he/she has to set some clear goals and objectives, and to achieve these goals; he/she has to go through some learning process. The clearer the goals and objectives are, the stronger the learning process.
- 3) Obstacles/Barriers: Under this, some kind of obstruction, barriers, difficulty, and obstacles come to the fore. If there is no obstacle or difficulty, then the person will not have any desire to change his behaviour and acquire new knowledge and skills. Therefore, obstruction or hindrance is also a necessary step in the process of learning.
- 4) Various Possible Responses: A person tries again and again to do any work or activity that he knows how to do and in these attempts, he corrects his earlier mistakes. For this, he takes the help of logic, reasoning, trial and error, etc., and ultimately succeeds in doing the work correctly. Thus, to carry out a process or task correctly, several possible responses are usually required.
- 5) Reinforcement: To overcome the obstacles in the process of learning, a person makes different types of efforts and becomes successful in removing the obstacle by any one effort. So he/she experiences it and wants to repeat it again and again. This repetition is a very important step in the process of reinforcement.
- 6) Organization/Generalization: Learning is organizing to select appropriate and successful responses. The last step of learning not only fulfills the need and goal of the individual but also connects the new successful response with the previously learned responses. In this way, he/she goes on coordinating his/her new or previous knowledge which is called integration or equalization.

CHECK YOUR PROGRESS
Que 4: What is meant by teaching-learning process?
Que 5: Mention two steps of the learning process.

3.7 Summing Up:

- Throughout life, human beings change, modify and improve their crude instinctive behaviour. This change, medication, and improvement are called learning.
- The main aim of learning is to modify the instinctive behaviour of human beings.
- Learning helps the individual to find out the problem properly and with the help of experience and proper education one can solve his/her problem.
- The teaching-learning process is a means through which the teacher, the learner, the curriculum, and other variables are organized in a systematic manner to attain pre-determined goals and objectives.
- Teaching-learning has four aspects. These are teacher, student, learning process, and learning situation. The effectiveness of all these aspects makes the teaching-learning process successful.
- The teaching-learning process is a tri-polar communication process. These three poles are teacher, students, and teaching environment. All these three poles make teaching teaching-learning process effective.

3.8 Answer to 'Check Your Progress':

Answer to Q. No. 1: Learning is the modification of behaviour through experienceand training.

Answer to Q. No. 2: One important aim of learning is to help individuals to adjust the new situation. With the help of learning, an individual can adjust himself to new situations very easily.

Answer to Q. No. 3: Learning is always depending upon motivation. It gives readiness to the learner to learn something. Learning effectiveness is the result of the motivation of the learner.

Answer to Q. No. 4: In the words of J. C. Aggarwala, "Teaching learning process is a means through which the teacher, the learner, the curriculum, and other variables are organized in a systematic manner to attain predetermined goals and objectives".

Answer to Q. No.5: Two steps of the learning process are motivation and reinforcement.

3.9 Questions and Exercises:

Short-Answer Questions

- 1. Define learning.
- 2. Write two characteristics of learning.
- 3. Mention any two characteristics of the teaching-learning process

Long-Answer Questions

- 1. What is learning? Discuss the aims of learning.
- 2. Describe the different steps of the learning process.

3.10 References and Suggested Readings:

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UNIT- 4 LEVELS OF TEACHING

Unit Structure:

- 4.0 Introduction
- 4.1 Objectives
- 4.2 Levels of Teaching Learning
 - 4.2.1 Memory Level
 - 4.2.2 Understanding Level
 - 4.2.3 Reflective Level
- 4.3 Summing Up
- 4.4 Answer to 'Check Your Progress'
- 4.5 Questions and Exercises
- 4.6 References and Suggested Readings

4.0 Introduction:

Teaching is a systematic, scientific, and complex process through which teachers can make the learning of students possible. In teaching, teachers systematically present teaching content to students in the classroom. Teaching is not just about presenting the teaching-learning content in the classroom. Teaching is not just presenting the teaching-learning content in the classroom as teaching also focuses on how successfully the students have absorbed the teaching-learning content presented. Teachers' teaching is deeply involved in the mental skills, intellectual abilities, efficiency, sense of life, social awareness, etc. of students. Teachers use different levels to teach students. From ancient times to the present, various levels have been used to make teaching successful. As a result of various scientific studies and analyses of teaching, the levels of teaching have gained a stable form. In this unit, we will discuss the different levels of teaching in detail.

4.1 Objectives:

After going through this unit you will be able to –

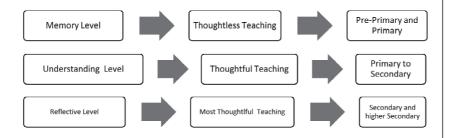
- *know* the basic concept of levels of teaching-learning,
- *understand* the different levels of teaching-learning.

4.2 Levels of Teaching Learning:

The main objective of teaching is to bring about desired changes in the behaviour of the learner and to help him to make suitable adjustments in his personal and social life. To achieve those objectives of education, keeping in mind the level of physical and mental development of the child, teachinglearning has been divided into three major levels.

The three levels of teaching-learning are:

- 1. Memory Level
- 2. Understanding Level
- 3. Reflective Level



4.2.1 Memory Level:

The main objective of teaching-learning at this level is to develop the child's memory power. The child is unaware of school and educational activities. He is immature in terms of physical and cognitive development. Memory is a mental process, which is found in some or the other quantity in every living being. When a person sees an object, substance, or place, the reflection or symbol of that object, substance, or place becomes in his mind, remembering these accumulated symbols or things learned in the past is called memory.

The different stages of memory are stated below:-

- 1) Learning: This is the initial stage of memory where the individual acquires new information or experience through various means such as reading, seeing, hearing, or doing. Learning can be intentional or unintentional. For example, when a person learns to ride a bicycle, he is consciously trying to acquire a new skill.
- 2) Retention: This is the stage of memory where the learned information or experience is stored in the brain for a longer period. Retention can be affected by a variety of factors such as repetition, relevance, and sentiment. For example, a person may remember the lyrics of a song that he or she has heard over and over, or he or she may remember an event that had a strong emotional impact on him.
- 3) Recall: It is the stage of memory where a person retrieves or brings back the stored information or experience into conscious awareness. Recall may be spontaneous or may be prompted by external cues. For example, a person may recall a childhood memory after seeing a picture or hearing a familiar sound.
- 4) Recognition: This is the stage of memory where a person recognizes or accepts that they have seen or experienced something before. Recognition can be based on different cues such as visual, auditory, or contextual. For example, a person may recognize a former classmate after seeing him in a different setting or he can recognize a song that he had previously heard on the radio.

Model of Memory Level of Teaching:

The memory level model of teaching-learning is a framework that describes how information is processed and stored in memory during the teaching-learning process. It consists of the following components:

Aim: Teaching aims to provide new information and knowledge to the students that they can use in their lives. This includes setting clear learning objectives and providing relevant and meaningful content.

Syntax: The structure or syntax of teaching refers to how information is organized and presented to the students. It involves breaking down complex information into smaller, more manageable pieces and presenting it logically and coherently.

Social System: The social system of teaching refers to the interactions and relationships among teachers, students, and peers. This includes creating a positive and supportive learning environment where students feel safe asking questions and sharing their ideas.

Support System: The support system of instruction refers to the resources and equipment available to help students learn and retain information. This involves providing feedback, guidance, and reinforcement to help students develop their memory skills and improve their learning outcomes.

Elements of Memory Level of Teaching-Learning:

Memory level of teaching-learning is the first level of education, where the aim is to develop the memory power of the child. Here are the key elements of this level:

- 1. Objectives: The main objective of teaching at this stage is to provide factual information and knowledge to the learner. The learner needs to memorize these facts and identify them as and when required.
- 2. Nature of subject matter: At this stage, the subject matter is simple. The learner learns by rote method, where the teacher presents factual material for memorization.
- **3. Teaching methods:** The teacher is active at this stage and uses methods such as drill exercises, repetition, recall, and questions to help the learner remember the subject matter.
- **4. Role of the teacher:** The teacher plays an effective, active, and dominant role at this stage. They have direct contact with the learner, and the relationship between them is important.
- **5. Role of the learner:** In this stage the role of the learner is passive. They need to follow the teacher's orders and remember the facts, words, and concepts presented to them.

- **6. Teaching equipment:** The use of audio-visual aids like charts, models, radio, television, tape recorder, etc. can help in making teaching interesting and sustainable.
- 7. **Nature of motivation:** In this stage, the motivation of the learner is completely extrinsic. The teacher motivates the children to studyand stresses the importance of memorizing the subject matter.
- **8. Evaluation system:** The evaluation system is an essential part of teaching, as it helps in measuring the achievement of educational objectives.

Example: In a primary school, students are taught multiplication tables at the memory level of teaching. The teacher presents the tables to be memorized, and the students are required to memorize them and refer to them when needed. The teacher uses repetition and questioning to help students memorize the tables. The motivation for students is extrinsic, as teachers stress the importance of memorizing tables to do well in mathematics class. The evaluation system measures the extent to which the students memorized the tables.

Merits of Memory Level of Teaching:

- 1. **Developmentally appropriate:** The memory level of teaching is appropriate for young children because it aligns with their cognitive development level. Example: A teacher is teaching a nursery rhyme to preschoolers using repeating phrases and songs.
- 2. Learning simple concepts: This learning level helps children to learn about simple objects, substances, situations, and elements of their environment, which form the basis of future learning. Example: A teacher uses pictures of fruits and vegetables to teach a preschooler about healthy eating habits.
- **3. Development of memory:** Memory power is important at all stages of life, and this learning level helps in the development of memory power of the child. Example: A teacher is asking students in elementary school to memorize the multiplication table.

- 4. Useful for special needs students: The memory level of teaching is helpful for students with special needs, such as those with learning disabilities or mental retardation. Example: A teacher uses flashcards to teach basic vocabulary to a student with autism.
- **5. Foundation for higher learning:** This level of learning lays the foundation for the next level of learning, which includes the levels of understanding and thinking. Example: A teacher teaches a child to write the alphabet using repetitive exercises as the basis for later spelling and reading skills.

STOP TO CONSIDER

Three levels of teaching-learning are:

- 1. Memory Level
- 2. Understanding Level
- 3. Reflective Level

Limitations of Memory Level of Teaching:

- 1. Rote learning: This teaching method relies on memorization without practical application, which leads to a lack of deep understanding of the subject matter. Example: A teacher asks students to memorize a list of historical dates without explaining the context.
- 2. Passive learning: The teacher plays a major role in this level of learning, with little autonomy or active participation of the children in the learning process. Example: A teacher lecturing to a class of students without conversation or discussion.
- 3. Lack of socialization: Children engage only in physical activities related to memory and do not get opportunities for socialization. Example: A teacher is asking students to memorize vocabulary words individually without group discussion or collaborative activities.
- **4. Limited opportunities for self-learning:** This teaching level does not encourage self-teaching or initiative in learning. Example: A

- teacher provides a list of questions and answers for students to memorize without encouraging critical thinking or problem-solving.
- 5. Lack of intrinsic motivation: The material presented may not intrinsically motivate the children to learn, which may lead to disinterest and alienation. Example: A teacher is teaching a subject that has no interest or relevance to a student's life.

CHECK YOUR PROGRESS
Que. 1: What are the levels of teaching?
Que. 2: Write the name of the second level of teaching.
Que. 3: The teacher plays a pivotal role in the memory level of teaching.
(Write true or false)
Que. 4: Importance should be given to memorization in the memory
level of teaching (Write true or false)

4.2.2 Understanding Level:

The literal meaning of understanding is perception, receiving, knowing, and explaining. Understanding means knowing the meaning of an object, the subject matter the determination of a concept, and the evaluation of other concepts. Understanding level of teaching is the middle level of teaching, it includes those students whose intelligence is developing. Teaching at the understanding level requires that the teaching has already taken place at the memory level. At the understanding level, the emphasis is on generalizing and making students aware of principles and facts. If the teacher is successful in his endeavor, the students develop the ability to identify, understand, and apply the rules. In understanding-level teaching, the teacher presents the subject matter to the students in such a way that the students get maximum opportunities to understand and the necessary understanding is generated in the students.

In education, the understanding level of teaching refers to the level where learners not only receive information but understand it and apply it in real-life situations.

Here are some key points that explain the level of understanding of the teaching-learning:

- 1) Objectives: Learning objectives at this level include translation, interpretation, and extrapolation. Learners should be able to use the acquired knowledge or information in other similar and different situations.
- 2) Nature of Subject Matter: At this stage, learners acquire information about new concepts, factors, topics, and facts and they understand, learn and retain them. Students also learn to apply the acquired knowledge to real-life situations.
- 3) Methods Used: At this level, teachers use different methods of teaching such as lecture method, lecture-demonstration method, debate method, inductive-deductive method, and descriptive method.
- 4) Role of Teacher: The role of the teacher is prominent at this level as well, but the role of the children in the teaching-teaching activities increases. In this stage, children ask questions, argue, and present their arguments to the teacher to increase their knowledge.
- 5) Role of Learner: At this stage of education children participate more actively in the teaching-learning process. They demonstrate the active participation and understanding of the presented subject material, the integration of reading materials, and the creation and application of principles and rules.
- 6) **Teaching Equipment:** Teaching equipment is an important aid for the teacher. Their use makes learning simple, interesting, and easy for children. In modern times, apart from charts, pictures, and models, electronic devices like TV and radio are also available.
- 7) Nature of Motivation: Due to the involvement and participation of the children in the teaching-learning process, their motivation level for learning remains high. The motivation level can be made

- even higher if the teacher uses proper teaching skills and understanding.
- 8) Classroom Climate: The level of teaching at this level is more vibrant and encouraging. Children are more active here and take an interest in the subject. There is student participation in the teaching-learning process, so the problem of the disciplinary system is also relatively less.
- 9) Evaluation: The testing methods and tools used for evaluation should test children's abilities to apply the understanding gained from generalized rules to other situations. It should be able to determine how capable the child is of doing this.

Example: In the physics class, the teacher is explaining the concept of electricity to the students. At the understanding level of teaching, the teacher not only defines electricity but also explains its properties, types, and uses. The teacher uses various teaching methods, such as demonstrations and illustrations, to make it easier for the students to understand. Students are actively participating by asking questions and presenting their examples of electricity in real-life situations like the use of electric bulbs in homes. The teacher uses assessment methods that test the understanding of students' concepts and their ability to apply them in other situations, such as solving problems related to electricity in daily life.

Model of Understanding Level of Teaching

Focus: The aim of teaching-learning at this level is to ensure that learners acquire the knowledge and skills necessary for their personal and professional development. Teachers need to have a clear understanding of what they want their students to accomplish and how they can help them reach their goals. For example, a high school English teacher's objective may be to help students improve their reading and writing skills by the end of the academic year.

Syntax: The structure of teaching refers to how information is presented to the learners. Teachers should organize their lessons clearly and logically so that learners can easily understand the material. For example, a mathematics teacher might begin by reviewing the basic concepts of addition

and subtraction, then move on to multiplication and division, and finally teach more advanced topics such as algebra and geometry. Morrison divides the teaching structure of this level into five parts. These are mentioned below:

- (i) Exploration: Morison includes the following activities in this stage-
 - Testing prior knowledge for content analysis.
 - Arranging the elements in a psychological perspective for content analysis.
- (ii) **Presentation:** At this stage, the teacher should be more active and perform the following tasks.
 - The teacher should present the content elements in small parts and finally relate all the parts as a group.
 - When presenting the content, the teacher should also pay attention to whether the students understand the content or not.
 - Teachers should re-teach the content until most of the students understand it.
- (iii) Assimilation: During the presentation of the content, the teacher concludes that most of the students have acquired new knowledge.

 The teacher then provides opportunities for students to assimilate.

 Its main features are-
 - Students should be allowed to generalize the subject matter through assimilation to gain proficiency.
 - Students should be provided with assimilation opportunities for understanding the depth of the subject matter.
 - All students should be allowed to study according to their needs during assimilation. This means providing the best opportunities for personal performance.
 - In assimilation, students study in laboratories and libraries. So let them do their homework.

- Supervision is essential during assimilation. Teachers and students are all active during this activity. Teachers supervise and assist students as they perform individual tasks as needed.
- During assimilation, the teacher checks whether the students have acquired proficiency in the subject matter.
 If proficiency has not been achieved, the teacher should restore the opportunity to assimilate to the students.
- **(iv) Organization:**Organization refers to how the classroom is structured and managed. Teachers must create a positive learning environment that fosters collaboration, respect, and active participation. For example, a teacher might create group projects that encourage students to work together and learn from each other.
- (v) Description (Recitation): Description refers to the process of teachers explaining concepts and ideas to their learners. Teachers should use clear and concise language to help learners understand the material. For example, an art teacher might describe techniques used by famous painters to help students understand how to create different styles of art.

Social System: Social system refers to the relationships that exist between teachers, learners, and other members of the learning community. Teachers should create a supportive and inclusive learning environment that encourages learners to feel comfortable sharing their ideas and asking questions. For example, a history teacher might create a discussion forum where students can share their opinions on various historical events and debates.

Support System: Support systems refer to the resources that are available to help learners achieve their goals. Teachers should provide learners with access to additional learning materials, such as books, videos, and online resources. For example, a language teacher may provide their students with access to language learning software or online language courses to help them improve their language skills.

STOP TO CONSIDER

Understanding level of teaching is the middle level of teaching, it includes those students whose intelligence is developing. Here the teacher presents the subject matter to the students in such a way that the students get maximum opportunities to understand and the necessary understanding is generated in the students.

Merits of Understanding Level of Teaching:

- Active Participation: In this level of learning, students actively
 participate in the learning process which helps them to understand
 the subject material more effectively. Example: During a science
 class, students actively participate in practical experiments, group
 discussions, and critical thinking exercises.
- **Skill Development:** The understanding level of teaching helps students to develop important skills that can be useful in the future. Example: Students can learn problem-solving, critical thinking, and decision-making skills by understanding the levels of learning.
- Flexibility: There is flexibility in the teaching process at this level,
 which allows teachers to use a variety of teaching methods and
 materials to enhance student learning. Example: A teacher can use
 different teaching methods like group discussion, debate, lecture,
 case study, and role-play to cater to the different learning styles of
 the students.
- Increased Participation: At this level of teaching, the participation of children in the teaching-learning process is more than the memory level. They ask questions, present arguments, and engage in debate, thereby improving their understanding of the subject. Example: During a social studies class, students can engage in a debate on a controversial topic related to the subject matter, which helps them understand different points of view better.
- Co-curricular Activities: The understanding level of learning encourages students to participate in co-curricular activities, which helps in their overall development. Example: Students can participate

in extra-curricular activities like sports, music, and drama, which can help in their physical, emotional, and social development.

Demerits of Understanding Level of Teaching:

- Low Motivation: At this stage of learning, the motivation of the students is usually low and controlled by external factors. Example: Students may not be motivated to learn a subject if they do not see its relevance in their daily lives.
- The dominance of teachers: Children's participation in teachinglearning is less and teacher's dominance is relatively high. Example: A teacher may use the lecture method and not allow students to ask questions or participate in the learning process.
- Teacher-centered approach: All educational work at this level is based on a teacher-centered approach, which cannot meet the individual needs of all students. Example: A teacher may teach in the middle of the class and not differentiate instruction for students who are struggling or need enrichment.

4.2.3 Reflective Level:

At this level of teaching-learning, the teacher increases the thinking, reasoning, and imagination power in his students, so that the student can solve his problems through both the memory and the understanding level. Learning at the level of teaching is problematic. At this stage, the teacher puts a problem in front of the children and gives the children time to think about it independently. In this stage, critical and original thinking develops in children. At this level, students can test the facts themselves through teaching. They independently create hypotheses. Let's examine them and gather their supporting facts and evidence against them. They create new hypotheses according to the need and also try to test them. Children can apply the knowledge gained in real-life situations.

Model of Reflective Level of Teaching:

• Focus: Reflective teaching-learning aims to help learners develop critical thinking and self-awareness skills. Teachers should encourage learners to reflect on their own learning experiences and to evaluate

their progress toward achieving their goals. For example, a college professor may encourage students to reflect on their writing process and identify areas where they can improve their writing skills.

- Syntax: The structuring of reflective teaching-learning refers to the way through which learning activities are organized and presented to the learners. Teachers should create a structured learning environment that encourages learners to think deeply about their own learning experiences. For example, a science teacher might use inquiry-based learning activities that encourage students to ask questions, explore different hypotheses, and evaluate evidence so that they can develop their conclusions.
- Social System: The social system in reflective teaching-learning refers to the relationships that exist between the teacher, the learners, and other members of the learning community. Teachers should create a supportive and collaborative learning environment that encourages learners to share their thoughts and experiences with others. For example, a language teacher might create a peer-editing group where students can review each other's writing and provide feedback to help each other improve their writing skills.
- Support System: Support systems in reflective teaching-learning refer to the resources and tools that are available to help learners reflect on their own learning experiences. Teachers should provide learners with access to a range of resources, such as journals, self-reflection prompts, and reflective writing exercises. For example, a history teacher might provide students with a self-reflection prompt that asks them to think about how their own experiences have influenced their understanding of a particular historical event. Teachers can also provide resources to help students learn how to write effective reflective essays.

Elements of Reflective Teaching-Learning:

Reflective teaching-learning is a process where a teacher evaluates their teaching practices and reflects on their teaching strategies to improve student learning outcomes. There are several key elements of reflective learning, which are described below:

1) Objectives:

- Generating prompts for problem-solving: The teacher should create opportunities for students to identify problems and find solutions. For example, a science teacher may ask students to design an experiment to test a hypothesis.
- Developing logical and critical thinking: The teacher should encourage the students to think critically and logically. For example, an English teacher might ask students to analyze a piece of literature and make connections to real-world issues.
- Developing the ability of self-thinking and decisionmaking: The teacher should help the students to develop their thoughts and ideas and encourage them to make informed decisions. For example, a social studies teacher might ask students to research and present a controversial topic.

2) Nature of subject matter:

The main objective of teaching and learning is to find and identify problems and then find appropriate solutions. For example, a math teacher may ask students to solve real-world problems using mathematical concepts.

3) The method used:

The teacher should use teaching methods that encourage student participation and engagement. For example, a history teacher might use role-playing activities to help students understand historical events from different perspectives.

4) Role of the teacher:

The teacher should act as a facilitator of learning, helping students discover and learn on their own. For example, a music teacher might encourage students to explore different instruments and styles of music.

5) Role of the learner:

The student should be actively involved in the learning process and motivated to learn. For example, a language teacher might encourage students to practice speaking and writing in the target language outside of the classroom.

6) Teaching-learning Process:

The teaching-learning process should be dynamic and flexible, allowing for student input and creativity. For example, an art teacher may allow students to choose their own medium and subject matter for a project.

7) Guided problem-solving:

The teacher should guide students through the problem-solving process, helping them develop their solutions. For example, a physics teacher might guide students through an experiment to help them discover the laws of motion.

8) Evaluation:

- Testing Analysis and Synthesis: The teacher should evaluate the student's ability to analyze and synthesize information. For example, a social studies teacher may ask students to write a research paper on a historical event.
- Testing Reasoning and Critical Aptitude: The teacher should evaluate student reasoning and critical thinking skills. For example, a philosophy teacher may ask students to analyze and evaluate arguments.
- Testing Independent Judgment: The teacher should evaluate the student's ability to make independent decisions and make informed decisions. For example, a health teacher may ask students to research and present a health-related issue.

The Merits and Demerits of Reflective Level of Teaching-Learning:

The reflective level of teaching-learning is an approach that emphasizes the development of higher cognitive abilities in learners. Here are some of the merits and demerits of the reflective level of teaching-learning:

***** Merits:

• **Development of Higher Cognitive Abilities:** The reflective level of teaching-learning helps in the development of higher cognitive abilities in learners. By engaging in reflective thinking, learners can analyze, synthesize, and evaluate information, which are the skills necessary for problem-solving.

- Child-Centered Approach: This approach is focused on the learner, making the role of the student paramount. It allows learners to actively participate in their learning process, and promote selfdiscovery and independent thinking.
- Opportunities for Problem Solving: The reflective level of teaching-learning provides opportunities for the learners to develop the ability to solve problems inside and outside the school. These skills are essential for success in both academic and professional situations.

Example: A science teacher using a reflective approach to teaching might ask students to reflect on a recent scientific discovery and analyze its implications. The teacher can then ask the students to use this information to solve a problem or design an experiment.

Demerits:

- (i) Not Suitable for All Students: Not all students are capable of learning at the reflective level of teaching. This method may not be suitable for very young and mentally retarded children.
- (ii) Slow Pace of Learning: With this approach, the pace of learning becomes extremely slow. It takes a lot of time to impart education by that method.
- (iii) Lack of Physical Facilities: In the modern prevalent education system, our educational institutions lack physical facilities for problem-solving studies.

Example: An art teacher using a reflective level of teaching may find it challenging to engage young students who may have limited attention spans and may not have developed the cognitive abilities necessary for reflective thinking.

Reflective layering of teaching-learning can be an effective approach to promote higher cognitive abilities and problem-solving skills. However, it may not be suitable for all students and may require more time for effective teaching and learning. Ultimately, the choice of teaching method should be based on the individual needs of the learners and the availability of appropriate resources.

CHECK YOUR PROGRESS	Space for Learners
Que. 5: What is meant by the understanding level of teaching?	
Que. 6: Write two merits of the reflective level of teaching.	
3 Summing Up:	
• To achieve those objectives of education, keeping in mind the level of physical and mental development of the child, teaching-learning has been divided into three major levels. The three levels of teaching-learning are memory level, understanding level, and reflective level.	
The main objective of teaching-learning at the memory level is to develop the child's memory power.	
• The memory level model of teaching-learning is a framework that describes how information is processed and stored in memory during the teaching-learning process.	
• Understanding level of teaching is the middle level of teaching, it includes those students whose intelligence is developing. Teaching at the understanding level requires that the teaching has already taken place at the memory level. At the understanding level, the emphasis is on generalizing and making students aware of principles and facts.	
• Understanding the level of teaching helps students to develop important skills that can be useful in the future. Example: Students can learn problem-solving, critical thinking, and decision-making skills by understanding the levels of learning.	
• At the reflective level of teaching-learning, the teacher increases the thinking, reasoning, and imagination power in his students, so	

and the understanding level.

thinking and self-awareness skills.

that the student can solve his problems through both the memory

Reflective teaching-learning aims to help learners develop critical

4.4 Answer to 'Check Your Progress':

- Q. No. 1: There are three levels of teaching.
- **Q. No. 2**: The name of the second level of teaching is the understanding level.
- Q. No. 3: True.
- Q. No. 4: True
- **Q. No. 5**:Understanding level of teaching is the middle level of teaching, it includes those students whose intelligence is developing. Teaching at the understanding level requires that the teaching has already taken place at the memory level. At the understanding level, the emphasis is on generalizing and making students aware of principles and facts.
- Q. No. 6: Two merits of a reflective level of teaching are as follows:
 - Development of Higher Cognitive Abilities: The reflective level
 of teaching-learning helps in the development of higher cognitive
 abilities in learners. By engaging in reflective thinking, learners can
 analyze, synthesize, and evaluate information, which are the skills
 necessary for problem-solving.
 - Child-Centered Approach: This approach is focused on the learner, making the role of the student paramount. It allows learners to actively participate in their learning process, and promote selfdiscovery and independent thinking.

4.5 Questions and Exercises:

Short-Answer Questions

- 1. What is meant by the memory level of teaching?
- 2. Write the meaning of understanding.
- 3. Write two merits of understanding level of teaching.
- 4. Write two demerits of the reflective level of teaching.

Long-Answer Questions

- Space for Learners
- 1. Explain the models and elements of the memory level of teaching.
- 2. Critically evaluate the memory level of teaching.
- 3. Describe the model of understanding level of teaching.
- 4. Discuss in detail the elements of the reflective level of teaching.

4.6 References and Suggested Readings:

- Aggarwal, J. C. (2014). Principles, Methods & Techniques of Teaching. New Delhi: Vikas Publishing House Pvt. Ltd.
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UNIT- 5 MODELS OF TEACHING

Unit Structure:

- 5.0 Introduction
- 5.1 Objectives
- 5.2 Meaning of Teaching Model5.2.1 Characteristics of Teaching Model
- 5.3 Significance of Teaching Model
- 5.4 Elements of Teaching Model
- 5.5 Classification of Teaching Model
- 5.6 Role of Teacher in Application of Teaching Model
- 5.7 Summing Up
- 5.8 Answer to 'Check Your Progress'
- 5.9 Questions and Exercises
- 5.10 References and Suggested Readings

5.0 Introduction:

The Report of Secondary Education Commission, 1952-53 suggested that even the best courses and the most appropriate curriculum would be considered dead unless there were good methods of teaching and the life of good types of teachers. There was a time when too much emphasis was placed on methods of learning. Later on, experience and research have shown that learning methods are not adequate to solve teaching problems. Therefore, educators and psychologists are now starting to use technological theory to understand the nature of teaching. This has led to the development of teaching theories. To date, there are no theories of teaching that can be recognized as good or universal. A teaching model is an attempt to shape itself like the theories of teaching. Some people like to call teaching models incomplete teaching theories. Models of teaching provide basic material and scientific basis in the theory of teaching. Teaching models occupy a special place in the entire teaching process.

5.1 Objectives:

After going through this unit you will be able to—

- know the basic concept and nature of the teaching model,
- *understand* the different types of teaching models.

5.2 Meaning of Teaching Model

Teaching models play an important role in developing teaching principles. Teaching is purposeful action. Its main objective is to correct the initial behaviour of the students and develop a personality full of the desired development of latent talents. Teaching is a combination of art and science, therefore it requires techniques, skills, and practical methods to deliver this task successfully. For this purpose, teachers should prepare a model related to the classroom and teaching programme. The word 'Model' means a pre-planned design or scheme or sample, which helps to carry out a task properly. There is an urgent need to develop implementation mechanisms to create a suitable environment for teaching. The teacher should develop an attractive and interesting model using his/her personality, behaviour, actions, language, etc., considering what, where, and how to present the content of the lesson. Through such models, teachers can carry out meaningful and effective teaching.

Teaching models have been used in the teaching and learning process since ancient times to make teaching more realistic, lively, and effective. A look at the history of the use of teaching models shows that the Greek philosopher and educator Socrates was the first to teach students using the 'Question-answer or Dialect' model. Similarly, the ancient teachers taught their disciples by applying various models based on their wisdom. Western countries can be considered the pioneers of modern teaching models based on the widespread use of teaching models developed in Western countries today. The rapid development and application of recent science and technology have brought about changes in the learning environment, content of study, curriculum, teaching methods and techniques, teaching tools, etc. Consequently, various teaching models have been developed as a result of psychological theories of learning and the successful application of such models has paved the way for innovation in the world of education.

A teaching model is a plan prepared in advance that includes the teaching strategies, structures, and instructions required to achieve the educational goals and objectives set to make teaching easier, more interesting, and more lively. Modern education is child-centered education and therefore efforts should be made to correct the behaviour of students in the learning environment to develop their personalities. It is worth mentioning that if the teacher does not make the whole teaching period lively and interesting in the classroom, the students will become bored and the whole teaching period will be wasted. Therefore, teachers should develop teaching models strategically to create a vibrant environment. In short, the teaching model is the model of teachers' creative activities.

Different educators have given different definitions of teaching models at different times. Some of the most notable definitions are mentioned below:

- In the words of Allen and Ryan, "Modeling is an individual demonstrating a particular pattern which the trainee learns through imitation."
- According to Bruce Joyce and Marsha Weil, "A model of teaching consists of guidelines for designing educational activities and environments. It specific ways of teaching and learning that are intended to achieve certain kinds of goal."
- According to Paul D. Eggen and others, "Models are perspective teaching strategies designed to accomplish particular instructional goal."
- In the words of N. K. Jangira and Ajit Singh (1983), "A model of teaching is a set of interrelated components arranged in a sequence which provided guidelines to realize a specific goal. It helps in designing instructional activities and environmental facilities, carrying out of these activities, and realization of a stipulated objective."
- B.K. Passi, L.C. Singh, and D. N. Sansanwal opined that"A model
 of teaching consists of guidelines for designing educational activities
 and environment. Models of teaching is a plan that can also be utilized
 to shape the course of studies to design instructional material and
 guide instruction."

Based on the above definitions, it can be clearly stated that a teaching model is a pre-planned design or scheme that is prepared before teaching and through which an interrelationship between teacher and student is established. It can make the teaching and learning process effective by configuring the curriculum, specializing teacher-student tasks, and controlling student behaviour. In short, a teaching model is a scheme that contains the educational structure and guidelines necessary to achieve predetermined learning objectives to improve student behavior.

STOP TO CONSIDER

'Model' means a pre-planned design or scheme or sample, which helps to carry out a task properly. A teaching model is a pre-planned design or scheme that is prepared before teaching and through which an interrelationship between teacher and student is established. They are closely related to the effectiveness of the educational process.

5.2.1 Characteristics of Teaching Model:

Some characteristics of teaching models can be determined based on the opinions given by different educators at different times. These characteristics are discussed below:

- (1) Scientific Procedure: The ideal teaching model is based on systematic procedure and sequential methodology. Teaching models are based on systematic approaches to correct student behaviour.
- (2) Specification of Learning Environment: The outcome of the learning process depends on the desired classroom or educational institution environment. Emphasis should be placed on developing teaching models in an environment in which the behavioural correction of learners is considered.

- (3) Specification of Teaching Operation: The teaching model specifies the protection provided for the learner's reaction and interaction with the environment. This means that the teaching model emphasizes the interaction between teachers, students, and the environment.
- (4) Specification of Criterion of Performance: Judging the quality of the learner's performance is a considerable aspect of the teaching model. Such models specify criteria for editing what learners have acquired after teaching.
- (5) Specification of Learning Outcome: The teaching model ensures the outcome of the learning instruction of the given subject at the end of the teaching. The teaching model specifically specifies the behaviour to be exhibited after teaching.
- (6) Guideline to Teaching: The teaching model guides the teacher in carrying out the teaching duties. The teaching model guides how to proceed with the lesson to keep the whole learning environmentalive.
- (7) New Innovation in Teaching: Teaching models help in making the desired changes in students' behaviour and moving them in the right direction. These teaching models, and innovative creations of modern technology, have sparked innovative thinking in the world of education.
- (8) Unification of Analytical and Synthetical Attitude: Both analytical and synthetical aspects of the learning process are reflected in the teaching model. Therefore, such models are useful for both teachers and students.
- (9) Consideration of the Principle of Individual Differences:

 Teaching models are prepared from a psychological perspective by considering the tastes, interests, tendencies, abilities, etc. of the students.

In short, a teaching model is a comprehensive analysis of the learning environment or a reflection of scientific thinking.

5.3 Significance of Teaching Model:

Teaching models help in solving various problems of the learning environment rationally by making the teaching and learning process more realistic and effective. Teaching models are closely related to the effectiveness of the educational process. Such depth determines the significance of teaching models in education. They are—

- (1) It helps in achieving the objectives of the teaching and learning programme.
- (2) Teaching models help in creating systematic teaching.
- (3) It helps to make the teaching and learning process more effective and easier to understand.
- (4) The teaching model assesses learner behaviour.
- (5) It helps in specifying the teaching and learning programme.
- (6) The teaching model helps in selecting appropriate teaching tools.
- (7) It helps in the qualitative development and social competence of teachers.
- (8) The teaching model assists in the adoption of necessary measures and strategies based on the behavioural aspects of the learner.
- (9) The use of teaching models helps to introduce innovation in education.
- (10) It helps in making the teaching and learning process scientific and accurate.
- (11) It helps to make the education process research-oriented.
- (12) Teachers enhance student relationships and help them learn about their strengths and abilities.
- (13) It helps to determine the content of the curriculum in line with the teaching objectives.
- (14) It helps in the development of teacher and student skills in any aspect of education.

Based on the above discussion, it is clear that the main objective of the teaching model is to improve the quality of the teaching system. Therefore, these teaching models are important in creating an appropriate environment for teaching and developing students' cognitive, emotional, and practical behaviour.

5.4 Elements of Teaching Model:

Based on the analysis of the teaching model, some of its basic elements can be discussed. They are:

- 1) Focus: This is the context of the subject to be learned.
- 2) Syntax: Syntax is the description of the teaching model. Layout is the description of what, where, and how the subject matter will be presented in the teaching process.
- 3) Principles of Reactions: Firmness and relaxation of the teaching model is the principle of reaction. This component explains how teachers will consider students' reactions, how they will behave towards them, etc.
- 4) Social System: The relationship between teacher and student is the social system. Social systems are the descriptions of how teachers and students will play roles and establish relationships in the learning environment.
- 5) Support System: A support system is a method or technique applied in the learning environment to provide useful facilities. These facilities can be used to assess the success of education. It has been identified as a component of the teaching model, although not a major part.
- 6) Application Context: This component covers making each model easily usable in all three aspects of the individual's mind: cognitive, affective, and psychomotor.

	CHECK YOUR PROGRESS	Space for Learners
Que	. 1: Define teaching model.	
Que	. 2: Mention any two elements of teaching model.	
5.5 C	lassification of Teaching Model:	
	Studying the history of education shows that since ancient times,	
various	s philosophers and educationists have applied different teaching models	
	on their philosophy of life. Many teaching models have been	
•	nented since the 'Question-Answer Model' of the Greek philosopher	
	es or Gurukul education in India. Thus, many teaching models have	
	leveloped as a result of the thoughts and careful observations of	
	nt experts. There are five types of teaching models. These are	
mentic	aned below:	
i.	Historical Teaching Model	
ii.	Philosophical Teaching Model	
::: 111.	Psychological Teaching Model	
iv.	Teaching Model for Teacher Education	
V.	Modern Teaching Model	
	The names of the co-models under the above models and their	
invent	ors and a brief discussion of those models are given below:	
(I)	Historical Teaching Model:	
	Historical teaching models are those teaching models that have been	
used in	historical form. This model is also applied in the current education.	

system. Other models and inventors included in this category are as follows—

Models of Teaching	Name of the Inventor
The Socratic Teaching Model	Socratic
Classical Humanistic Model	Brody
Personal Development Model	Carl Rogers

The above models are explained below—

- (a) The Socratic Teaching Model: This model was invented by the Greek philosopher Socrates and is named after him. This model focuses on establishing teacher-student relationships through the provision of 'questions and answers'
- **(b)** Classical Humanistic Model: The thinker Brody is the inventor of this model. The essence of this model is to determine the teaching and learning programme according to the happiness and sorrow of the individual mind and humanistic feelings and experiences.
- (c) Personal Development Model: This model was invented by the American educator Carl Rogers. This model of teaching relies on the development of learners' competencies and abilities such as self-awareness, cognitive ability, self-discipline, self-concept, etc.

(II) Philosophical Teaching Model:

Philosophical aspects are the main foundation of education. The influence of philosophical approaches on teaching objectives, curriculum, teaching methods, assessment, etc. can be seen. This teaching model is based on a philosophical approach. Other teaching models in this category are listed below with the names of the inventors:

Models of Teaching	Name of the Inventor
The Impression Model	John Locke
The Insight Model	Plato
The Role Model	Kant

The above models are explained below—

- (a) The Impression Model: The famous philosopher John Locke was the inventor of this model. According to this model, the teaching experience provides verbal, numerical, and visual templates of sensations in the minds of the students.
- (b) Insight Model: According to the Greek philosopher Plato, the inventor of this model, teaching is the result of observation and observation of the learning material as a whole. It is not mechanical. According to this teaching model, teaching and learning are based on the whole which is always more effective than parts.
- **(c) Role Model:** Kant, the pioneer philosopher of logic, was the inventor of this model. According to this model, teaching experiences should develop students' reasoning tendencies and abilities. This model applies the conventional formulas of logic.

(III) Psychological Teaching Model:

The formulas, principles, and analysis of education provided by psychologists are the main themes of this model. Other teaching models in this category are listed below with the names of the inventors:

Models of Teaching	Name of the Inventor
Basic Teaching Model	Robert Glaser
Computer-Based Teaching Model	LowrenceStolyraw& Davis
Interaction Teaching Model	N. A. Flander
Teaching Model of School	John Carroll
Learning	

These models are described below—

(a) Basic Teaching Model: According to this model developed by Robert Glaser, teaching can be socially developed by raising the teaching and learning process to the stage of self-discovery and self-evaluation of teacher-student behaviour.

- (b) Computer-Based Teaching Model: This model involves teaching with the help of computers. The main objective of this model is to enable students to make problem-solving decisions by promoting personal development. LowrenceStolyrawand Davis were the inventors of this model.
- **(c) Interaction Teaching Model:** This model was invented by Flaender. The main feature of this teaching model is the establishment of interactive relationships between teachers and learners.
- (d) Teaching Model of School Learning: According to this model, invented by John Carroll, schools should try to teach students according to their own skills, interests, abilities, and abilities. This model demonstrates the importance of developing individual self-talent. According to this model, students can learn according to their inclinations within the time given to them.

(IV) Teaching Model For Teacher Education:

The teaching model for teacher education is based on teacher education or training. The main objective of this model is to transform the behaviour of teachers. Other models under this model are discussed below:

- (a) Taba's Teaching Model: This model is known as the Inductive Thinking Model. According to this model, how teachers apply thinking and design lesson plans is a reflection of their skills. The development of the three aspects of concept formation, interpretation of data, and application of principles can be seen in this model. This model explains why teachers review the whole learning environment rather than the information received as a whole.
- **(b)** Turner's Model of Teaching: According to Jonathan Balduin Turner, teaching is problem-solving behaviour. Problem-solving strategies can be measured according to teacher competence. Such qualifications give effectiveness to teachers.

- **(c) Model of Variation in Teacher Orientation:** Teachers can acquire teaching qualifications according to their judgment. Therefore, there is variation in the rearrangement.
- (d) Lifelong Teacher Education Programme Model: In the present society, teachers should prepare themselves in such a way that they can face all the challenges faced by the students and acquire the ability to lead a working and capable life. This model of teaching therefore involves preparing students for lifelong learning according to the curriculum through lifelong efforts rather than periodic efforts.

(V) Modern Teaching Model:

Modern teaching models are the teaching models proposed by education experts that are suitable for the current science and technology juncture and the teaching process. Other models and inventors belonging to this model are as follows:

Models of Teaching	Name of the Inventor
Behaviour Modification Model	Skinner
Information Processing Model	Jean Piaget
Personal Model	William Glasser, Carl Rogers, etc.
Social Interaction Model	John Dewey & Associates

The above models are discussed below—

- (a) Behaviour Modification Model: The main objective of this model is to develop and improve the social behaviour and skills of learners. The inventor of this model is B.F. Skinner. These teaching models are based on behavioural development through more organized learning activities and appropriate motivation. Some of the models under this model are:
 - (i) Programmed Instruction Model: The main objective of this model is to acquire, store, and develop concepts and functionality of learners.

- (ii) Set Control Model: The main objective of this model is to increase the self-control of the students by increasing their social behaviour skills.
- (iii) Anxiety Reduction Model: The anxiety reduction model is the correction of behaviour by reducing the anxiety of a learner or individual in social situations.
- **(iv) Assertive Training:** This model increases the ability of individuals to express their feelings directly or spontaneously in social environments.
- (v) **Direct training:** The purpose of this model is to master the method of behavioural techniques.
- (b) Information Processing Model: Information processing models are the intellectual techniques required by the teaching model to process or generalize information. This model organizes, classifies, and processes information received from various stimuli in the environment in the mind of the individual. This model helps in developing students' creativity, problem-solving ability, intellectual development, application of facts, idea formation, application of memory, and decision-making ability. Other models invented by Jean Piaget are as follows:
 - (i) Cognitive Development Model: The main purpose of this model is to apply the general intellectual development and rational thinking of the individual to social and moral development.
 - (ii) Scientific Inquiry Model: The purpose of this model is to develop scientific inquiry and provide training in research on a particular subject.
 - (iii) Memory Model: This model emphasizes improving the memory aspects of the students.
 - **(iv) Inquiry Training Model:** The main theme of this model is the development of inductive thinking and decision-making.

(v) Concept Attainment Model: The main objective of this model is to provide the power of concept attainment through the application of synthetic and analytical approaches.

Apart from these, the Information processing model is again subdivided into three types. These are:

- (i) Inductive Model: According to this model, education is carried out from the specific to the general.
- (ii) **Deductive Model:** Deductive model is the process of moving the learning of students from general to special.
- (iii) Inductive-Deductive Model: This model proceeds in two ways: from special to general and from general to special. It attempts to put educational theory into practice through a structure of a sequence of actions, interactive roles, organizational support, and application.
- (c) Personal Model: Educators like William Glasser and Carl Rogers are the inventors of this model. This model coordinates and realizes the emotional and cognitive needs of the individual. This model, which is essentially individual-centered and self-developmental, paves the way for personality development by building healthy and interactive relationships with one's environment according to one's personality. Some of the most important examples of this model are as follows:
 - (i) Social Problem Solving Model: According to this model, the main objective is to instill a sense of responsibility towards oneself and society. The social problem-solving model is also known as the classroom meeting model
 - (ii) Awareness Training Model: The main objective of this model is to increase the self-expression ability and self-awareness of the individual.
 - (iii) Non-directive Teaching Model: The main objective of this model is to acquire personal development skills by emphasizing self-concept, independence, and self-awareness.

- (iv) SyneticM odel: The main purpose of this model is to achieve the personal development of individuals through the development of creative and problem-solving abilities of individuals.
- (v) Conceptual System Model: The purpose of this model is to form correct concepts through planning to increase flexibility by removing individual complexity.
- (d) Social Interaction Model: This model was developed by John Dewey and his colleagues. The primary purpose of this model is to establish the relationship between the individual and society and the socialization process of the individual becomes possible as a result of the relationship thus established. This model socializes individual attitudes and behaviour, makes behaviours socially acceptable, awakens democratic values, and aims at the conscious economic development of solidarity. This model believes in social relationships as the main vehicle of learning. Some of the other major models under this model are as follows:
 - (i) Group Investigation Model: The purpose of this model is to establish interpersonal relationships and acquire investigative skills through enhancing participation skills in democratic social processes.
 - (ii) Jurisprudential Model: The main purpose of this model is to acquire the skills to analyze social problems in a planned manner.
 - (iii) Social Inquiry Model: The purpose of this model is to enhance the ability to solve social problems based on rationality.
 - **(iv)** Role Playing Model: The main objective of this model is to develop inquisitiveness by taking the students' own and social values as the focus of inquiry.
 - (v) Social Stimulation Model: The purpose of this model is to help the learner acquire various experiences, understand social processes, and observe reactions.

The above models consider the educational process of an educational institution from their own perspective. The teaching and learning process also varies from environment to environment. Therefore, teachers need to focus on improving work efficiency, identifying the objectives of each teaching model, and trying to master the techniques of using the models. Only then will the entire teaching and learning process become lively, effective, and entertaining.

5.6 Role of Teacher in Application of Teaching Model:

Successful and appropriate application of teaching models developed for different purposes requires a well-thought-out approach. Without proper application of these models, teaching cannot be made effective, and interesting. Therefore, teachers have to pay attention to certain aspects when applying these teaching models. The role of teachers in this regard is discussed below.

- (1) Teachers should choose the model based on the nature and purpose of the teaching model and try to combine different models accordingly as necessary.
- (2) Teachers should choose teaching models based on the individual differences and nature of students in the classroom.
- (3) The relationship between the theoretical aspects of teaching and the teaching models should be considered.
- (4) Teaching models should be selected based on the needs of the subject and try to apply multiple models as required.
- (5) When applying teaching models, teachers should try to apply them with the image of their classroom in mind and a well-studied inquisitive mind is required.
- (6) Teaching models should try to create an appropriate environment to improve student behaviour.

It is not easy to choose a universally accepted teaching model and apply it in the classroom, taking into account individual differences. The teacher must therefore be skilled and technical. Teachers must be very careful and always aware of the organizational changes and application of

teaching models given classroom teaching as needed only then teaching and learning will be successful.

STOP TO CONSIDER

Teachers must be always aware of the organizational changes and application of teaching models. They should choose teaching models based on the individual differences. Without proper application of the teaching models, teaching cannot be made effective, and interesting.

CHECK YOUR PROGRESS
Que. 3: How many models are included under the modern teaching model?
Que. 4: What is the objective of concept attainment model?
Que. 5: What is meant by Insight model?

5.7 Summing Up:

- Teaching models play an important role in developing teaching principles.
 Teaching is purposeful action. Its main objective is to correct the initial behaviour of the students and develop a personality full of the desired development of latent talents.
- The word 'Model' means a pre-planned design or scheme or sample, which helps to carry out a task properly.
- A teaching model is a scheme that contains the educational structure and guidelines necessary to achieve predetermined learning objectives to improve student behaviour.

- Teaching models help in solving various problems of the learning environment rationally by making the teaching and learning process more realistic and effective. Teaching models are closely related to the effectiveness of the educational process.
- Studying the history of education shows that since ancient times, various
 philosophers and educationists have applied different teaching models
 based on their philosophy of life. Many teaching models have been
 implemented since the 'Question-Answer Model' of the Greek
 philosopher Socrates or Gurukul education in India.
- Historical teaching models are those teaching models that have been used in historical form. This model is also applied in the current education system.
- Philosophical aspects are the main foundation of education. The influence of philosophical approaches on teaching objectives, curriculum, teaching methods, assessment, etc. can be seen. This teaching model is based on a philosophical approach.
- The formulas, principles, and analysis of education provided by psychologists are the main themes of this model.
- The teaching model for teacher education is based on teacher education or training. The main objective of this model is to transform the behaviour of teachers.
- Modern teaching models are the teaching models proposed by education experts that are suitable for the current science and technology juncture and the teaching process.
- Teachers should choose the model based on the nature and purpose of the teaching model and try to combine different models accordingly as necessary.

5.8 Answer to 'Check Your Progress':

Answer to Q. No. 1: In the words of N. K. Jangira and Ajit Singh (1983), "A model of teaching is a set of interrelated components arranged in a sequence which provided guidelines to realize a specific goal. It helps in

designing instructional activities and environmental facilities, carrying out of these activities and realization of a stipulated objectives."

- Q. No. 2: Two elements of the teaching model are-focus and syntax.
- Q. No. 3: There are five models included under the modern teaching model.
- **Q. No. 4**: The main objective of this model is to provide the power of concept attainment through the application of synthetic and analytical approaches.
- **Q. No. 5**: According to the Greek philosopher Plato, the inventor of the Insight model, teaching is the result of observation and observation of the learning material as a whole. It is not mechanical. According to this teaching model, teaching and learning are based on the whole which is always more effective than parts.

5.9 Questions and Exercises:

Short-Answer Questions

- 1. What is meant by teaching model?
- 2. Who developed the Inquiry training model?
- 3. Write two characteristics of teaching model.
- 4. Why teaching models are important for a teacher?

Long-Answer Questions

- 1. Explain the meaning and nature of teaching model.
- 2. Describe the modern teaching models with examples.

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