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# UNIT 8 UNDERSTANDING TEACHING

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## 8.1 INTRODUCTION

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Man is a social animal because he learns to live according to social norms. The main difference between a man and animal is that a human being tries to adjust himself/herself according to her/his culture and surroundings which an animal cannot. S/he learns all these from a teacher. The first teacher in his/her life is his/her mother and then the family members and lastly, the society. But the formal teaching is possible in an educational institution only. Here comes the role of a teacher and teaching process. In this unit, we shall try to understand what actually the word 'teaching' means. The dual nature of teaching i.e. science and art will be taken up. Besides, the various techniques, strategies and models of teaching shall be discussed. You must have observed that all learners or classes cannot be

taught in the same manner. Different learners have to be dealt with in different teaching style. We already know that a teacher has to make preparation before taking a class and plan the teaching process to be taken up in the class room. We must understand the different phases of teaching and how they should be dealt with. We shall also try to understand how complex teaching profession is and how it can be simplified. Hopefully at the end of unit, you will have deep understanding of teaching.

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## 8.2 OBJECTIVES

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After going through this Unit, you will be able to:

- understand the concept and nature of teaching;
- examine the morality behind teaching profession;
- elucidate the interrelationship between teaching, learning, instruction and pedagogy;
- critically analyze the different phases and styles of teaching;
- discuss various models and maxims of teaching;
- reflect upon the condition and consequences of taking teaching as profession;
- and
- understand the role of teachers in the life of learners.

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## 8.3 NATURE OF TEACHING: DUAL NATURE

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According to Oxford Dictionary 'Teaching' means "impart knowledge or skill, give instruction or lessons, instill and inspire with". By analyzing this meaning, we can say that teaching is an activity that facilitates learning. Teacher is a facilitator who tries to satisfy the educational needs of the learners in such a manner that they play important and positive role for the upliftment of society. Thus, a great responsibility lies on the shoulders of teachers— the future of any society. They have to justify their profession. The role of a teacher is full of diversity. The learners look up to them as their ideal, model, guide, mentor, supervisor and much more. The overall personality development i.e. physical, mental, emotional, social, moral, etc. of a learner lies in the teaching of a teacher.

### 8.3.1 Teaching as Art

Elliot Eisner, in his book *The Educational Imagination* (1985) gives four reasons to consider teaching as an art. They are as follows:

- i. Teaching can be performed with such skill and grace so that both teachers as well as learners experience the whole process aesthetically.
- ii. Teacher's activities are dynamic i.e. they are influenced by various qualities and contingencies and change accordingly. They are not performed in strict routines and regimes.
- iii. Teachers with good aesthetic sense usually incorporate them in their teaching process irrespective of the subject being taught.
- iv. The end of teaching is not pre-decided, it is often created in the process.

Thus the four senses of teaching are- as a source of an aesthetic experience, as dependent on the perception and control of qualities, as a heuristic or adventitious activity and as seeking emergent ends; these prove that teaching can be regarded as an art (pp.175-177).

**We can say that teaching can be considered as art because:**

Every individual teacher teaches according to her aptitude, ability, personality and knowledge. For example, during teaching of the 'structure of flower', one teacher may explain in traditional method that it consist of four whorls viz: calyx, corolla, androecium and gynoecium and their structure and functions are. . . . Another teacher may explain in a more aesthetic way to explain it in an interesting manner. The teacher shows a flower of hibiscus to the children. The colour and beauty of the flower will attract learners' attention. One by one, each part can be shown and explained by visual beauty of the flower. Thus the structure can be explained aesthetically.

The kinesics of teacher can be effective in teaching too. The voice, gestures, facial expression, body language and appealing personality of teacher adds beauty to the teaching process.

Artists are who excel in their art; similarly, a teacher highlights her strengths instead of teaching in a traditional manner. The teacher uses her positivity and talents to teach the learners successfully.

There is a flexibility in teaching. There is freedom of expression for both teacher and learners.

The teacher accepts criticism and appreciation both and gives scope for creativity.

It has more of personal touch or we can say humanistic approach is observed.

Here I would like to mention my student life experience regarding our history teacher. Many of us find history boring as a subject. But luckily I got a very brilliant history teacher in high school. Whenever we were not in mood to study in the traditional manner we used to rub 'Hi' from the subject 'History' before she came. As soon as she used to enter the class and see 'story', a smiling face turned towards us and she commented, "Oh, so you want to hear a story". We replied excitedly, "Yes, Miss". Now I realize how easily she taught us about World War, Pearl Harbour, Battle of Panipat, Boston Tea-Party, etc. with the help of story illustration.

### 8.3.2 Teaching as Science

Many educationists feel that teaching is a 'science'. Its origin can be found in educational thinking in the second half of the 20<sup>th</sup> century, largely due to the widespread influence of Johann Friedrich Herbart's writings and the ensuing 'Herbartismus' (Lutzker,p.2007). On the basis of this, the teacher training courses were determined from a scientific approach and trained accordingly.

The approach to teach is based on scientific inquiry, logical sequencing of content and systematic dissemination of it. The objectives are set as goal of teaching. The teaching plan revolves round the achievement of these objectives. For this, the activities are logically arranged and taught in traditional systematic manner. Since teachers are accountable for the result of the teaching, they rarely try to deviate from the sequential teaching pattern.

We can say that teaching is science as:

It is systematic, logically planned and executed in the class

Before teaching begins, the objectives are fixed to bring about desired behavioural changes in the learner.

All the tools, techniques and strategies are planned beforehand.

It has an impersonal touch to it.

We cannot forget that after all the content of class level has to be transferred within limited time so approach of teaching is justified.

Humanistic approach may create excitement and interest but good systematic teaching too can do the same.

Recently new pedagogical approaches which are scientific in nature are also equally beneficial as aesthetic approach.

We can say that teaching observes dual role and a teacher must balance both of them so that the main objective of education is fulfilled successfully. Whenever and wherever required, the role of teaching should be interchanged.

**Activity 1**

Observe few teachers colleagues around you and try to differentiate between teachers who teach keeping humanistic approach and those using scientific approach. Discuss, how you could differentiate between these two approaches?

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**Check Your Progress**

**Note:** a) Write your answers in the space given below:

b) Compare your answers with those given at the end of the Unit.

1. Which role of teaching (as science/art) do you find appropriate and why?

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**8.4 TEACHING AS A MORALLY LADEN ACTIVITY**

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The development of character has been an explicit aim of education ever since the emergence of common schools and the rise of systems of education (McClellan, 1999). As we have already discussed and are well aware of it that education aims at overall development of a child. Thus the teacher has an important role to play to attain this aim. In other words, it is not wrong to say that teaching is a morally laden profession. There is a struggle going on within the teacher as well as within the society where we usually hear the comments like teaching profession has become a business where only money is reaped and morality is neglected, teachers do not teach properly in class so that they can earn money through private coaching, teachers do not work hard in school as they are paid low salary by the management etc. We cannot overlook or avoid these remarks as they are showing us the mirror of our present youth.

The environment in the classroom has totally become academic and moral development has taken a backseat. The learners also need teachers who impart

them content knowledge properly and nothing else. The affective domain states that the final achievement is characterization but that level is reached rarely. The classroom teaching should be a value laden activity i.e. they form intrinsic part of education. The teacher has to decide by what methods it can be achieved. Any content that is taught in class should also have some value based on look or explanation. This can be incorporated during teaching, interaction between teacher-learner or peer discussion. It is a real challenge for teachers to keep in consideration the moral aspect during teaching process. It may vary like use of moral language, to judging right and wrong deeds, attendance, regularity and respecting relations in the class. Thus a teacher has a huge responsibility while teaching a class. To achieve these following strategies can be adopted:-

This can be taught during training period of trainee teachers. During lesson planning and its implementation, this fact should be taught by teacher educators.

To attain the above objective, the teacher educators should themselves be equipped with this character.

But before this the curriculum is too designed such that moral and ethical aspect is integrated in it.

Teaching should be made effective so that character development is one of the behavioral outcomes of the learners.

It is the responsibility of teacher educators and teacher training institutions to mould the trainees into effective teachers.

Only teachers can help the learners to develop the bond with their school similar to that they have for their home i.e. a sense of belongingness is to be developed.

We all know that school is miniature representation of our society or community. Through teaching the norms, ethics and expectations of the society can be inculcated in learners.

The feeling of brotherhood, communal unity, and strength and community service can help to drive youth towards positivity and thus reduce vices and delinquency in them.

The learners who acquire the above mentioned values excel academically, too.

Teacher has the moral responsibility of taking into consideration the ability and aptitude of learners and guide them accordingly.

Teacher should try to make the class an environment which motivates learners to fare according to their capability and capacity. The learners in the class must have respect and trust for each other.

Teaching should incorporate such activities which shall strengthen the bonding between all in the classroom and all get equal opportunity of expression.

Teacher must teach that character building is higher than academic achievement. Good morality is a precursor for a successful life.

Teacher should not avoid the inquisitiveness of learners related to sex, attraction, drugs, stress, abuse, suicide, bribery etc.

Teacher should arrange workshops on 'life-skills'.

Learners dislike direct lectures on morality. It is upto teacher to try different interesting ways to convey these messages.

## Teaching - Learning Process

Teaching in a class involves cognitive, affective and psychomotor aspects. In our country we are more bothered about the cognitive gain only. NCERT has taken a good step in designing curriculum where teaching involves moral value dissemination with the content.

The value based exercises must be taken up seriously by the teachers during teaching process.

At last we can say that the moral values cultivated in schools have long lasting effect in our life.

### Activity 2

During teaching any lesson of your choice (eg: pollution) ask learners what have they observed about pollution. Have they felt the urge to do anything for their environment? Have they participated in any nature friendly activity, if yes then describe it.

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### Check Your Progress

**Note:** a) Write your answers in the space given below:

b) Compare your answers with those given at the end of the Unit.

2. What moral lessons can a science or arts teacher give during teaching. Explain with the help of any topic.

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## 8.5 INTERRELATIONSHIP BETWEEN TEACHING, LEARNING, INSTRUCTION AND PEDAGOGY

We have already discussed about teaching concept and its nature in the beginning of this unit (see 8.3). So let us move on to understand the term 'Learning'.

### 8.5.1 Learning

Before understanding what 'learning' actually means, let us go through some definitions given by eminent educationists.

"Learning is selecting the appropriate response and connecting it with the stimulus"- Thorndike

"Learning is the change in behaviour resulting from behaviour"- Guilford

"Learning is an organization of behaviour"-Garret

"Learning is a process of progressive behaviour adaption"-Skinner

When you go through all the above definitions, one thing is common, that is the phrase 'change in behaviour'. The teacher is the one who can facilitate this in

classroom teaching. The teacher must integrate metacognition in the children. The teaching must begin by testing the previous knowledge of the learners and then accordingly begin the teaching of new content relating it to the prior knowledge. This helps the learner to establish a bond with old and new knowledge and thus a familiarity with content arises. This process brings about the expected behavioral change in the learner. This classroom experience is impossible without effective teaching by the teacher.

According to Dashiell, the process of learning involves following steps:

First step is the rise of need and necessity in the learner. At the second step, motivation is received which takes the learner to third step of setting the objectives. The learner becomes active at the fourth step and shows various actions and reactions. The correct responses are imbibed in the fifth stage and try to utilize that to solve other problems at the sixth stage. This revision helps the learner to master it.

**When different types of teaching methods, styles and variations (e.g.: group discussing, activity based learning, individualized instruction, discovery based learning etc.) are incorporated in the teaching process then it becomes pedagogy.**

### 8.5.2 Instruction

According to Gagne’s instructional events, they should have following learning events:



Figure 8.1: Gagne’s 9 Steps of Instructional Process

### 8.5.3 Pedagogy and Its Relation with Teaching, Learning and Instruction

As already mentioned that pedagogy is ‘process of teaching’; we can say that it is the discipline concerned with theory as well as practical aspect of education. It elaborates that how best a teaching can occur in a classroom for complete development of the learners. According to John Dewey “Pedagogy involves the organic relation between curriculum and teaching, and it entails study based, socially just and ethically sound practices resulting from negotiations among the teacher, learners and others.”

Herbart said that ‘pedagogy’ is assumptions by a teacher and a specific set of capabilities with a fixed aim. He stated that there is a correlation between personality development and the final outcomes which will benefit the society and mankind as a whole. He suggested five elements which are as follows:

Preparation,

Presentation,

Association,

Generalization, and

Application in order to develop them as an ideal citizen.

As already stated in this definition Pedagogy involves steps which begin the moment is assigned the work of teaching any subject. It can be represented as follows:-

- i. Teacher- personality, content knowledge, communication skill, behaviour, style, conduct and character etc.
- ii. Organizing various activities- planning the format of teaching, logical arrangement of content, use of supporting aids etc.
- iii. Dissemination of the content- Teaching the content according to the step (ii), using reinforcement and motivation, increasing interaction, giving stimulus variation to maintain interest, creativity.
- iv. Evaluation of achievements of learners- through oral or written test, observation or continuous class evaluation to see the positive change in behaviour.

[Note: Piaget, Bruner, Vygotsky etc. are some who worked a lot on the science of pedagogy.]

Let us discuss more about the relationship amongst teaching, learning, instruction and pedagogy.

***“Teaching is the stimulation, guidance, direction and encouragement of learning”- Burtan.***

It is rightly defined in the above sentence that teaching paves the way which directs an individual for learning.

The teaching process takes the learner along with himself in order to stimulate, promote and endorse learning.

Learning occurs on the basis of some principles and laws (laws of readiness exercise and effect etc.); if these are followed in teaching methods, learning becomes more effective.



Pedagogy targets teaching which prepares for future life such as social skills and cultural norms and ethical beliefs.

Instruction is teaching to help procure knowledge and skill which is more well-organized, resourceful, effective and engaging.

Paulo Freire referred to his method of teaching as ‘critical pedagogy’ in correlation with instruction, the instructor’s own philosophical beliefs of instructions are harboured and governed by pupil’s background knowledge and experience, situation and environment; as well as learning goals set by the learner and teacher. e.g. : Socrates school of thoughts

Robert Gagne’s main focus was instructional theory i.e. how to connect instruction and learning systematically.

Usually teaching and instructions used synonymously as there is very little but important difference between the two. Teaching begins its journey much before it comes into action in the classroom whereas instruction begins only when the teacher enters the classroom.

Learning is a sequential process which begins with teaching, progresses through instructions while obeying the pedagogy and results into behaviour change in the learner.

**Check Your Progress**

- Note:** a) Write your answers in the space given below:  
 b) Compare your answers with those given at the end of the Unit.

3. What is the relation between teaching and instruction?.

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**8.6 CONCEPTS RELATED TO TEACHING**

Teaching involves various facets in it. The different aspects attached to it decide its success rate and level. Teaching involves teaching styles, teaching content, teaching methods, techniques, strategies, environment of the classroom etc. The appropriate concoction can make teaching effective and impressive. Let us discuss few of these in detail.

**8.6.1 Teaching Styles**

Let us begin with an activity.

**Activity 3**

Observe few teachers when they are teaching in class. Just try to observe their style and mannerism of teaching. List what are positive and impressive points you liked and those you disliked which you would like to avoid in your teaching style.



Figure 8.2: Various Teaching Styles

Source: [[https://www.pinterest.com/angel\\_lady/teaching\\_style](https://www.pinterest.com/angel_lady/teaching_style)]

As the above figure clarifies, all teachers try different styles of teaching according to the situations and there are factors which affect the teaching styles. All the mentioned factors like personal, professional, knowledge, curriculum, institutional and career-stage factors. Actually, dominance of any one or more of these factors in teaching process decides the style. Thus we can say that there is no such fixed teaching style which will lead to effective and successful teaching.

Effective teachers use mixture of styles and they are well aware of how and when to choose the most suitable one for teaching.

Daniel K. Schneider thinks that *teaching style* refers to the teaching strategies and methods employed plus use of certain kinds of rhetorics.

On the other hand Galton states that the term ‘teaching style’ has no agreed definition but the more widely accepted definitions refer to it as “a set of teaching tactics”.

Thornton, B. Paul (2013) has suggested three basic teaching style:

’ **The directing style:** This style is basically based on instructional based teaching. The teacher guides the learners through whole teaching learning-process going on in the classroom. Usually methodologies used during teaching are lecture, demonstration, lecture-cum-demonstration, AV presentation, reading, writing etc. In this style the teacher ensures that all the learners follow instructions and guidelines properly. This is almost traditional type of teaching.

**The discussing style:** In this style the learners get a bit more freedom of speech and open environment to discuss their point or question. The teacher-learner interaction is quite obvious in this style. Here the teacher acts as a

facilitator who gives immense opportunity to the learners to think critically, analyze and discuss. The teacher ensures that there is relevance and logic behind discussion. Learners' creativity and thought process is activated and they become more opinionated.

**The delegating style:** In this style the learners are entrusted upon with their assignments. The learners do their allocated assignments individually and independently. During this process the teacher gives them the authority to decide how to work; which will ensure success in performing their task.

## SUGGESTIONS FOR ADOPTING EFFECTIVE TEACHING STYLE

Teaching style must be such that both teacher and learners are clear about the content to be taught and its objectives.

Triple 'C' i.e. Clarity, Conciseness and Comprehensiveness are the essence which should be included in any good teaching style.

Any confusing, dicey or ambiguous contents are not acceptable by learners so they should be avoided.

Confidence in a teacher regarding content knowledge is essential.

Teacher should always be ready for any unexpected situations, too. This enhances his teaching style.

Unbiased and non-partial teachers are always respected. All learners must be given equal opportunities during class activities.

At the end we can say that teaching style is an individualized talent which has to be developed by oneself.

### 8.6.2 Teaching Models

*“School faculties and individual teachers create life in schools by models of teaching, they choose and create.”-Bruce Joyce.*

As discussed above, one needs a good teaching style but with that the teacher must be aware of the teaching models that should be used in classroom. The teaching has to be given a direction and for this a proper draft or format is helpful which we can call as teaching model. As an architect makes a detailed plan of the building to be constructed on a paper similarly a teacher has to be prepared with a design or idea before teaching the learners.

Paul D. Eggen has rightly stated that models are prescriptive teaching strategies designed to accomplish particular instruction goals. A teaching model helps a teacher to reach out to all the learners effectively and successfully.

## FEATURES OF A GOOD TEACHING MODEL

It should be interactive in nature.

It should help for better performance of both teacher and learners.

It should have both philosophical and psychological background.

It should complement the content which is to be taught.

It should help in building interesting and motivating environment in the classroom.

It should help in developing creativity and innovative ideas in teacher as well as learners.

It should help in bringing out the expected behavioural changes in the learners.

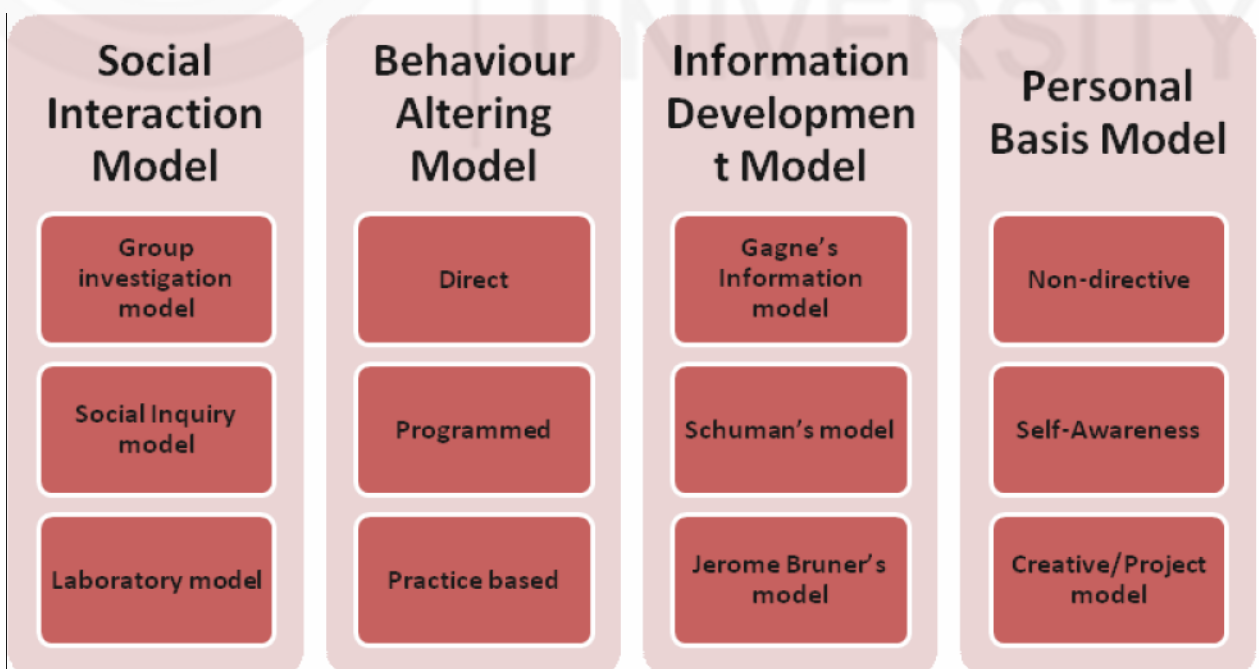
It must be viable in recognizing the strengths and weaknesses of the learners and assess them by their feedbacks.

### FUNDAMENTALS OF TEACHING MODELS

- i. **Focus:** It is the axis of any teaching model i.e. the main objective for whom it is to be used.
- ii. **Syntax:** All the dimensions of the model are organized sequentially.
- iii. **Principle of Sensation:** The concept of action-reaction is to be maintained to create a bond between teacher and learner.
- iv. **Social System:** The bond and interaction between teacher and learners should prepare them for the society by bringing behavioural change according to the norms of society.
- v. **Support System:** The model should be as a supplement to the regular teaching process which enhances the teaching effectiveness and learning experiences.
- vi. **Application Perspective:** The use and presentation of the model should be according to the content to be taught.

### Types of Teaching Models

There are **four types** of models:



## 1. Social Interaction Model

- **Group investigation model** is given by John Dewey and Herbart Thelmin. It is a source of social interactivity which includes working in a group consisting of both pro- and anti- type of personalities.
- **Social Inquiry model** is given by Benjamin Cox and Byron. It deals with social and humanity related topics which are researched and proved with the help of data.
- **Laboratory model** is based on the experiments to be undertaken in science or biology subjects

## 2. Behaviour Altering Model

- **Direct model:** It is almost like directive style of teaching discussed earlier in this unit. Teacher takes the main position of class and guides the learners through the class.
- **Programmed:** It is programmed instruction style of teaching i.e. CAI (computer assisted Instruction) where computer and web technology is used for teaching. It was first given by B.F.Skinner.
- **Practice based:** It involves teaching with the help of suitable methods; aids etc. and then after getting feedback arrange remedial classes to get mastery over the content.

## 3. Information Development Model

- **Gagne's model** deals with sensory memory. It depends on memorization and practice. There are various aspects like learners' readiness, motivation, perception, transfer of learning and retention
- **Bruner's model** is based on the fact that all the objects or events in this environment have relations with each other. Our surrounding has so many complexities that it can be understood by classifying them into smaller parts.
- **Schuman's model** is based on the strategies and assumptions used by scientists. It is basically scientific inquiry model. The problem is solved by both teacher and learners following scientific approach.

## 4. Personal Basis Model

- **Non-directive model** was given by Carl Rogers. He believed in concept of human relations and thus suggested instructions to be based on this model. This is similar to discussion style of teaching as discussed earlier.
- **Self-Awareness:** It was given by Fritz Pauls and W. Schutz. Here, the development of self is emphasized where the innate strengths and creativity of learner is given freedom to grow. This gives them opportunity to know about themselves and their peers.
- **Creative model:** It was given by William Gordon which states that projects can be assigned to the learners and they can learn by doing themselves. Teacher is just a supervisor and the learners either go in for field work or prepare a project on any activity. It is quite similar to delegate style of teaching.

### 8.6.3 Teaching Methods and Approaches

Teaching methods and approaches play an important role during teaching of content. Teacher must be capable enough to decide which method will suit the learners. The teacher is guided to impart education with correct approach of teaching.

“An approach may be explained as a comprehensive way of dealing with a particular problem. It is a general plan of action, on the basis of which, various methods and models are evolved. However a method is an orderly and logical arrangement of ideas based on a particular approach. It is a procedural illustration of systematic and clearly defined steps of accomplishing particular objectives. An approach hence can be called as a precursor on which a method is designed (extract taken from IGNOU, SOE, 2009, p. 31).

There are many methods used by teachers depending on the level of class, curriculum, interest of learners, availability of resources etc. The methods used may be teacher centered or learner centered. When planning a lesson to be taught in the class, a teacher has to analyze many aspects of using approaches for teaching. This planning varies from person to person. Let us take up some important and frequently used methods in detail.

- 1. Lecture method:** In this method the teacher plays a major role whereas learners have minor or no role to play. This method is useful for higher class where syllabus is vast. This method is commonly and frequently used in the classroom. But there is tendency of lecture becoming boring many a times. Therefore the teacher must try to plan her lecture with interesting tools like illustrations, experiences, anecdotes etc.
- 2. Demonstrative method:** This is a very common method used in science and mathematics teaching. The senses of sight and hearing make the learner more alert. The drawback is that learners are not allowed to handle the equipment used in demonstration. This can be seen in many schools where computer classes are run. The teacher demonstrates by using computer in front of learners but they are not allowed to touch the sets. It is very clear that this hinders in complete transfer of the content to the learner.
- 3. Lecture-cum-Demonstration method:** This is just the concoction of both the methods discussed above. The best of both methods can be used by the teachers for better results. This is almost teacher centered. For eg: In science, when different types of lever are to be explained teacher can bring real objects for demonstration like scissors, pliers, tongs etc. By showing these objects, she can give explanation too.
- 4. Heuristic/Discovery method:** According to Prof. H.E. Armstrong, “The soul of the learning of science is exploration. The learners should explore the facts and principles themselves.” This definition clearly explains that ‘heuristic’ means finding through experience. To get experience one has to strive for exploration. By this method, the learner reaches the solution and learns from it. This method is very good for higher classes since it is a learner centered approach. The teacher can guide the learners through this journey and also supervise so that the learner does not lose his path. This helps learner to achieve confidence in himself. Besides, he starts thinking at higher level and is motivated by his inquisitiveness. But again the same limitation is faced i.e.

it alone cannot be a beneficial method; it has to be combined with some suitable ones and then teaching should proceed.

**5. Problem solving method:** “Problem solving is a set of events in which Human being wants to achieve some goals”-Gagne

A child cannot solve a problem unless and until he has a sense of familiarity with it. Thus the problem should be such that it motivates and attracts the learner to try to solve it. The problem solver must be aware of the nature of the problem and whether it is practical for him or not. If the objectives are clear, the learner will involve himself wholeheartedly finding the solution. Ausubel states “Problem solving involves concept formation and discovery learning.” The steps to be followed in this discovery learning method must be outlined by the teacher. The main steps are:- Problem; Why it is taken up; Hypothesis framing; Data collection; Analysis of data, Interpretation and conclusion.

This method is commonly used in mathematics, physics, chemistry etc. During this method the learning process sometimes gets slowed down. This is because many learners are slow in this process and their problems are taken up by the teachers then.

**Activity 4**

Ask the learners to place some iron nails outside in the open environment. Tell the learners to bring those nails to show in class. What was the reason that iron nails have become brown whereas the painted iron window was shining as usual?

**6. Project Method:** They can be of two types. One, when some static or working model is made as in science or social science. Second is the investigatory project where some research or survey is done and then a report is made based on the findings. This method also comes under experimental method or laboratory method. This method was given by Kilpatrick- “A project is a wholehearted purposeful activity proceeding in a social environment”. This method is helpful in bringing out the creative and investigating aspect of the child. It requires lot of logical thinking. But again the same limitation occurs that in itself it is not a perfect method of teaching.

**7. Inductive and Deductive method:**

Inductive method is moving from specific to general and deductive method is from general to specific. Specific facts or examples are given and the learner reaches generalization and vice versa for deductive approach.

Let us understand this with the help of an example:-

“Electricity consumption is increasing day by day. The electricity cost has increased. The petrol and diesel prices are rising. The coal deposits are depleting. Forests are reducing day by day.”- all these statements can be generalized into one sentence and that is “Natural Energy Resources are decreasing with increasing population.” –Inductive

Another example-

“Save Natural energy resources”. Population is increasing and so is the consumption of natural resources. Forests should be protected and massive plantation should be done. Mining should be controlled. Country should now move towards generating electricity by nuclear energy instead of coal. People should move through public transport or opt for car-pooling, electricity at home should not be wasted unnecessarily.-Deductive

**8. Analytic & Synthetic method**

Analysis means taking a big or complicated problem or concept and trying to understand by breaking into smaller units to understand better. In this method, we move from unknown to known or from conclusion to hypothesis.

Let us understand with the help of an example-

“Stomach is an organ made up of group of different kinds of tissues”. Now the analysis of the various tissues is done i.e. the different kinds of tissues like epithelium, squamous, columnar, connective, blood tissues etc. are analyzed.

“During the reign of Akbar people of all religion progressed a lot and lived with love and brotherhood”. Now the rules and regulation under his rule, various developments like buildings, economy, culture, equality etc. are analyzed to prove the above statement.

Synthetic is just opposite of analytic method. It proceeds from known to unknown or from hypothesis to conclusion. It is as if you are given two hands, two legs, one head, one trunk and asked to join together to form a human body. But a human body will be made by joining together depends on your knowledge about the structure of human hand, leg, head etc.

We can say that analysis insists on discovery and synthesis depends on memory.

**Check Your Progress**

- Note:** a) Write your answers in the space given below:
- b) Compare your answers with those given at the end of the Unit.

4. According to you which combination of teaching methods you find the most appropriate one to teach lower secondary learners.

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**8.7 PHASES OF TEACHING**

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All of you must have observed that teaching is a process which occurs in different stages. Philip Jackson divided teaching operation into three phases and they are-Pre-active, Interactive and post-active phase. Let us discuss them individually so that we can understand what role they play to make a teaching process complete.



### 8.7.1. Pre-active Phase

We can say that it is the preparation before actual teaching begins. Before entering the classroom teacher must be well prepared with her tools/ equipments. Teacher must be ready with her planning and how to implement them in the teaching process. This phase includes full proof preparation and scheduling before commencing any action in class.

#### Steps at this stage:

Fix the aims and objectives- Before beginning actual teaching the instructor must be aware of the goals to be achieved at the end of the process. The aims are fixed keeping in mind the level (interest, capability, aptitude, psychology, background etc.) of learners, content, and expectations (of teacher, learner & society) etc.

Sequential arrangement of content- After fixing the goals, we move to the next level of analyzing the content target we have to analyze deeply. As we know the level of learners, the analysis of the content should be done accordingly. During this process it should be fragmented into small, simple pieces which learner can understand. But these fragments must be organized sequentially and they must have cohesion between them. This will guide the teacher to proceed logically in the classroom.

Since the aims are clear and matter is organized, the teacher must prepare strategies to accompany the teaching and make it more interesting and creative. Efforts should be made to make learning experience of learner as effective as possible. These strategies may include the teaching style, model of teaching, method and techniques for transfer of learning. The teacher has to decide which method should be used through which any particular content should be taught effectively.

### 8.7.2 Interactive Phase

According to Jackson, “In the interactive stage, the teacher provides pupils verbal stimulation of various kinds, makes explanation, asks questions, listens to learner’s response, provide guidance etc. At this stage the teacher is now in the classroom with proper equipment. Now actual teaching-learning process is introduced. Interactive process occurs between teacher and learners wherein teacher presents new content by linking it with previous knowledge of learners. Also the learners try to absorb the experiences of classroom teaching. Cross questioning may occur many a times in this process and repetition of some content may be requested by the learners. Teacher’s activity at this level is based on the objectives set and planning done before coming to the class. The main activities performed at this phase are-

First of all the teacher must have a quick glance and overview of the class.

An attempt should be made to establish a connection with the learners so that they feel a sense of familiarity.

A quick review of the level of class, their interest, aptitude and ability should be done by asking questions based on the previous knowledge.

After judging them, teacher must utilize proper method and techniques to present the content before the learners.

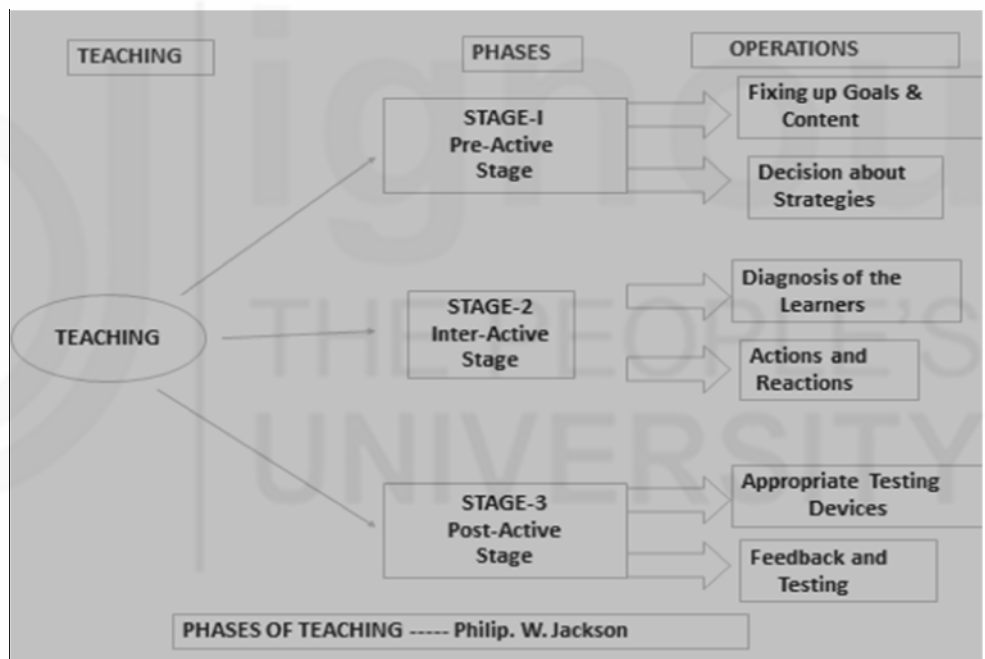
Communication process must be two way process so that it is an interactive class. It will help the teacher understand whether learners are getting the points as the teacher has presented.

The presentation as discussed is two way communication therefore when good response from the learner comes teacher must give reinforcement generously. This will motivate the whole class to put in more effort to analyze and respond.

Besides this teaching must be accompanied by stimulus variation, audio-visual aids, activities etc.

### 8.7.3 Post-Active Phase

This phase can be termed as winding up of the teaching process or in other words it is the beginning of new, better and modified teaching process of the same content. It begins as soon as the teaching process comes to an end. This phase is an acid test for a teacher because evaluation begins to check how far the teacher has been successful in achieving the objectives and bringing out the desired behavioural changes in the learners. Also, teacher is able to decide what technique, tool and strategy are beneficial in the classroom teaching. Let us recap with the help of a figure.



#### Check Your Progress

**Note:** a) Write your answers in the space given below:  
 b) Compare your answers with those given at the end of the Unit.

5. Discuss role of a teacher in interactive phase of teaching.

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## 8.8 MAXIMS OF TEACHING

Maxims are nothing but simple guidelines or principles which help the teachers to take decisions and act accordingly during the teaching process. According to definition given by Richard, “Teacher’s maxims appear to reflect cultural factors, belief systems, experience, training and the understanding of which maxims teachers give priority and how they influence teachers’ practices is an important goal in teacher development”. Let us see what features these maxims must have:

- They motivate the teacher
- Help teachers take decisions during teaching
- Make teaching interesting, creative and purposeful
- Make teaching a simplified affair
- Make teaching organized and effective

### Content of Maxims of Teaching

In a classroom, teacher can decide the activities which will help the learners to grasp the content. Therefore the maxims of teaching must have the following content. It should be from

- a) **Simple to complex:** It is the psychology of a child that he wants the content in simplified form. Therefore the teacher must move from simple facts and then take learners towards a little more difficult state.
- b) **Known to unknown:** When the teaching starts from previous knowledge to new content to be taught, the learner does not find difficulty in moving from known to unknown.
- c) **Concrete to abstract:** This is based on the principles of psychology. When a learner perceives anything or event in its real and physical form he connects to it easily. Then he can be driven towards more immaterial and intangible facts or events.
- d) **Direct to indirect:** Whatever is to be taught cannot be put straightaway before the learner? It should be connected to the facts already known to him.  
e.g. If topic ‘Acid’ is to be taught then learners should be asked about sourness, sour fruits, cause for sourness, citric acid and then we can teach them about mineral acids.
- e) **Particular to general:** Specific facts are presented before the learners and these are joined in organized manner to reach a generalized statement.
- f) **Analysis to synthesis:** It is based on the principles of associative psychology. Whenever we come across new theory, we try to analyze it and then assimilate it into one. For eg- In biology we learn about cell and then tissues and organs later. In the end, we study about the whole body composed of different organs.
- g) **Empirical to rational:** The first-hand knowledge given to the learners is real and pragmatic which he gets from his own experiences and then it moves on to more balanced and sensible content.
- h) **Psychological to logical:** It is considered during the pre-active phase of teaching where the content is arranged in such a manner where the priority

is the learner’s psychology (like interest, ability etc.) and then real teaching comes in logical manner from simple to more complex.

- i) **Whole to part:** As insight theory states that any object or incident should be viewed as a whole and then it is considered in parts. A teacher when presents a content or topic to the learners as a whole then it is broken into small units and then dealt with them
- j) **Indefinite to definite:** The content to be taught in the class may be definite for teachers but may not be so for the learners. Therefore the teaching style should be such that the learners are able to get direct knowledge which is possible only when they are familiarized with it.

### 8.8.1 Levels of Teaching

Whenever a teaching happens in classroom, a proper ranking must be to the levels of teaching. By this the cognitive, psychomotor as well affective development may take place. Bloom has given taxonomy describing the levels according to the cognitive development. The teaching level is necessary to increase the level of thinking and learning.

According to Hokanson and Hooper, there are five levels of teaching. Each level is based on the previous type of activity.

**Level-I: Reception-** At this level the learner is there to receive information. The teacher has to give answers and responses. Many of the teachers tend to do all the activities in this level only but this does not lead to good result. This level is just a settling level for learners both physically and mentally. We can say there is one way communication from teacher to learners.

**Level-II: Application-** Now interaction between the teacher and learner begins. It may be in the form of question, inquiry, discussion etc. At this level, the class becomes more interesting and creative. The level of thinking and analyzing the concepts increases.

**Level-III: Extension-**As the word implies the learned content is taken a step further and the gained knowledge is used in new situation.

**Level-IV: Creation-** Now the level of knowledge has reached a higher level and learner is able to solve a problem in his own way. He is able to face more complex problems and tries to find multiple ways to find solution. The teacher helps the learners to guide and supervise them.

**Level-V: Challenge-** Now learner is ready to challenge his own limits. He dares to take exploratory attitude towards challenges.

#### Check Your Progress

**Note:** a) Write your answers in the space given below:

b) Compare your answers with those given at the end of the Unit.

- 6. Discuss role of maxims of teaching citing examples from your classroom teaching experiences.

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## 8.9 TEACHING AS A COMPLEX ACTIVITY

As already discussed teaching has dual nature i.e. as an art and as science. The nature of 'teaching' as an art means creative, natural and intuitive. The science of teaching means using research, inquiry and exploration methods to teach. Thus, teaching becomes a complex activity which requires distinct skills and abilities.

Teaching is a challenging job which involves numerous dimensions like:

Being intelligent with good IQ

Knowledgeable enough to satisfy learners' quest

Logical preparation and presentation with clear objectives and goals

Rational and sensibilities to be shown and developed in learners

Strength, both physical and mental, able to face stress and criticism

Expressive with ideas and thoughts without fear and apprehensions

Fervent and ardent i.e. enthusiastic and zealous towards his work

Warmth and empathy in order to bond with class

Sensitive towards learners who face problem

Simultaneously upgrading and updating oneself with new discoveries

Orienting oneself by continuous short term courses or workshops

Evaluating oneself and learners

Be updated with curriculum and content

Using innovative strategies in and out of class settings

Other miscellaneous work other than class teaching

Working directly or indirectly for the society etc. and much more; the teacher has to perform accordingly which is very tough.

All the activities have to be performed keeping in mind the level of school (govt., private, public, convent, rural, urban etc) and children (their interest, ability, attitude, background etc). Usually the teachers who undergo teacher training are somewhat prepared for the real teaching job. During teaching they are trained in many of the aspects discussed above but sometimes the real life situation takes a toll on the new teacher. The teacher has to face many challenges during the job period. Some learn gradually and some succumb and leave the job. Thus trained teacher must be made aware and oriented accordingly to face the practicality of the teaching job. It is better that trained teachers pass out confident enough to face the teaching job full with complexities. The future of many learners is in the hands of a teacher therefore keeping in view the individual difference among learners has to be tackled. Also the teacher has to strive for the holistic development of learners. Not only this, learners as well as teachers performance is evaluated which specifies their progress. Thus we can see that teaching is a multi-faceted activity. After evaluation step the feedback has to be collected so that the teaching can be modified into better activity. The weak learners should be tackled in such

a manner that they do not feel inferior. Teacher in herself is a learner who adapts daily to the new situation. With so many roles to play teaching is surely a complex activity.

**Activity 5**

Make a list of any teacher he / she performs during teaching in and out of the classroom. Compare your list with others to see if you find some other activities which you have missed.

**Check Your Progress**

**Note:** a) Write your answers in the space given below:

b) Compare your answers with those given at the end of the Unit.

7. Teacher has a multifaceted role to play. Justify this statement with the help of an example.

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## 8.10 TEACHING AS A PROFESSION

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Let us go back to Vedic period when “*Guru*” and his teachings were deeply revered. The pure and unselfish bonding between *Guru-shishya* was prevalent at that time. His position was considered above the God because he showed the path to reach the divine power.

“ *Guru Gobind Dau Khade, Kake Lagon Paun;  
Balihari Guru Apne, Gobind Deo Bataye.*”

But today the conditions have changed a lot. It is now the last opted profession. Those who go in for teacher training courses do so to get a government job. There are very few people who really want to do teaching with nobility. Besides, there has been mushrooming of coaching institutes around us. The teachers lure or force learners to join their coaching institutes as the salary packages in private institutions are less. They all are responsible for changing this noble profession into a money raising business. The various creative and innovative ways to teach learnt during training classes are rarely followed when actual teaching occurs. They don't want to take the pains or waste time and energy on these activities instead just try to wind up the course allotted. This is the reason respect for a teacher is at its minimum and empathy for learners is no more there. This is just cheating the small children who look up to their teachers as their role models or ideals.

Teaching like any other profession must be given the same respect. Engineers, Doctors, Architects, Officers etc get good salary package which private teachers do not get. The salary and working conditions in school need revamping. This

profession will get its due when all of us work for its upliftment as a profession. Teaching is in need of its well-deserved position in society. Teachers should be given role to take part in professional decisions, diagnosing related needs, planning instructional programmes and evaluation policies.

The school organizations should adopt professional relationships and recruit teachers on the basis of eligibility criteria and refrain from employing inexperienced teachers to save money. Because inexperienced teacher causes more dents than no teacher. Therefore, a standard has to be maintained. On the other hand, teachers should also show professionalism and work with sincerity and dedication.

**Activity 6**

Just think without biasness why you are pursuing this course. Have any goals or aims in your life that can be fulfilled by this profession? Introspect and write it in the space given below.

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**Check Your Progress**

- Note:** a) Write your answers in the space given below:  
 b) Compare your answers with those given at the end of the Unit.

8. What are your expectations with teaching profession and what efforts will you put in to make a difference in the school you work.

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**8.11 ROLE OF TEACHER IN PROVIDING DYNAMIC CURRICULAR EXPERIENCES**

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We all are well aware of the many faceted role of a teacher. “Brown Douglas (2007) mentions that teachers can play many roles in the course of teaching and this might facilitate the learning. Their ability to carry these out effectively will depend on a large extend on the rapport they establish with their learners and on their own level of knowledge and skills,”

A good teacher is aware of the dynamics of a classroom. The teacher has to maintain a conducive environment in the classroom and provide them with experiences through her experiences. The role of teachers is changing very fast. Now they have become more of facilitators providing knowledge of content and the curricular experiences. For this the teacher has to play the role of a creator

## Teaching - Learning Process

also as he has to develop the learners on the experiences of his own. This cooperative curriculum based experience in the classroom develops reflective level of thought process, operative skills and recent developments in the field of education.

In today's education scenario interdisciplinary approach has become common. So a teacher can use her knowledge in different fields to give knowledge to the learners. In this way, good concepts and experiences of different disciplines can be incorporated during teaching. The only thing to be kept in mind is that these experiences are only limited to curriculum and no irrelevant and complex things are discussed. Today a teacher's role has become challenging when so many technological advances has taken place. In the age of Globalization teacher is not only the resource but various search engines of internet are there. And for this the teacher has to instill in them a sense of responsibility when using this source of information.

### Ways of providing dynamic curricular experiences

Learners must be made aware that curriculum covering is not at all theory driven but there are other aspects attached to it.

It involves healthy communication and interaction within and outside the classroom.

Whatever the curricular developments are there, the positive behavioural outcome should be the ultimate goal.

The teaching style, method, strategies, approaches etc. should be modified according to the curriculum changes.

Curriculum development should be according to the human development

The instructor of the class has to plan and engineer his role according to the curriculum with respect to the learners

The teacher has to be clear of the objectives related to curriculum instruction and the learners also have the right to know about these objectives.

Curriculum should not limit either a teacher or the learner. They should get opportunities to explore avenues related to the content.

We must understand that curriculum is developed with psychological, philosophical, and social context but these have dynamic nature so does the curriculum. Here teacher has to be updated with these modifications.

The curriculum is not to be tackled superficially but rationally.

At the end of curriculum transaction it is the child only who matters. It is upto him what he 'wants' to receive; but the teacher can help and guide him through this process which is in harmony with society, environment and himself. There should be minimum scope of conflict.

Activities and aids to be used should be used flexibly and interdisciplinary approach has to be used.

Integrated curriculum is the new concept which helps teacher to perform effectively.



We must not forget that the technological advancement has changed the role of teachers drastically.

Curriculum gives a defined path to teachers and learners for smooth teaching learning process.

A successful curriculum is one which engages both the teacher and learner to enhance the performance of both as well as institution so that a society benefits from it. Also the dynamics of curriculum must be known to the teachers as well as to the learners.

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## 8.12 LET US SUM UP

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In the unit, we tried to understand the dual nature of teaching where it shows both aesthetic and scientific approach. There are certain responsibilities, duties and rights of a teacher towards his/her profession that have been taken up. The teaching must inculcate the values and prepare an overall developed individual who can adjust in the society. Teaching has a wide spectrum all around it. All these were discussed with respect to different teaching styles, methods, approaches, phases and maxims. How teaching should be taken up at different levels was also detailed. At the end the dignity of teaching profession and need and ways to uplift were also critically seen.

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## 8.13 UNIT END EXERCISES

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1. Discuss the dual nature of 'Teaching'
2. What is the relationship between 'Pedagogy and Instruction'.
3. What is the difference between (a) inductive and deductive approach (b) Analytic and synthetic approach of teaching
4. What is the importance of Post-active phase of teaching?
5. Describe maxims of teaching.
6. What difference do you find between teaching and other professions?

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## 8.15 ANSWERS TO CHECK YOUR PROGRESS

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- 1 Answer based on your understanding.
- 2 Explain based on your classroom experience.
- 3 Teaching is the stimulation, guidance, direction and encouragement of learning. Teaching begins its journey much before it comes into action in the classroom whereas instruction begins only when the teacher enters the classroom. We can say that instruction is a part of teaching process in the classroom.
4. Answer based on your observation & understanding.
5. The interactive stage is where the teacher provides pupils verbal stimulation of various kinds makes explanation, asks questions, listens to learner's response, provide guidance etc.
6. Answer based on your classroom experiences.
7. Justify as per your understanding.
8. (i) They make teaching simplified  
(ii) They make class more creative and interesting