PGED S1-04

Methods and Techniques of Teaching and Teaching Practical

SEMESTER - I

EDUCATION

COURSE 04

KRISHNA KANTA HANDIQUI STATE OPEN UNIVERSITY

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COURSE INTRODUCTION (COURSE 4)

COURSE INTRODUCTION

The fourth course of MA 1st Semester in Education, is divided into two parts i.e. Theory and Practical or Practice Teaching. The total marks of the paper is divided into the following segments:

Theoretical Part	**:**	**50 Marks**
Lesson Plan	**:**	**20 Marks**
Presentation of the Final Unit	**:**	**10 Marks**
Viva-Voce	**:**	**20 Marks**

The detail instruction for the practice teaching with the model units are available in the university website i.e. ***www.kkhsou.in.***

This SLM is designed for the first part i.e. Theoretical Part which consists of 50 Marks. There are a total of 6 units for the course. The *First Unit* deals with the general principles of teaching, marks of good teaching and the factors that influence the learning process. The *Second Unit* discusss the taxonomy of educational objectives. The *Third Unit* explains the teaching techniques and maxims of teaching. The *Fourth Unit* deals with the teaching devices that are used during the teaching learning process. The *Fifth Unit* explains the importance of using teaching aids. The *Sixth Unit* discusses the procedures of lesson plan, types of lesson and methods of teaching in different subjects namely Language, Mathematics, General Science and Social Science.

While going through this course, you will come across some along-side boxes, which are put on the left side or right side of the text. These boxes will explain you meaning of some words and concepts within the text. Apart from this, there will be some broad and short questions which have been included under ‘ACTIVITY’ and ‘CHECK YOUR PROGRESS’ in every unit. Activities will increase your thinking capacity because qestions put in Activity are not directly derived from text. Hints on the answers to the short questions have been put under section ‘ANSWERS TO CHECK YOUR PROGRESS’. Besides, a few text-related questions have been put in ‘POSSIBLE QUESTIONS’. These questions will help to draw your attention on the probable topics for the examination so that you can prepare for the examination with confidence.

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UNIT 1: PRINCIPLES OF TEACHING

UNIT STRUCTURE

1.1 Learning Objectives

1.2 Introduction

1.3 Concept of Teaching

1.4 Principles of Teaching

- 1.4.1 General Principles of Teaching
- 1.4.2 Psychological Principles of Teaching

1.5 Qualities of Good Teaching

1.6 Factors Influencing Learning

- 1.6.1 Factors Related to the Learners
- 1.6.2 Factors Related to the Teacher
- 1.6.3 Factors Related to the Environment

1.7 Let Us Sum Up

1.8 Further Reading

1.9 Answers to Check Your Progress

1.10 Possible Questions

1.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- define the concept of teaching;
- explain the general principles of teaching;
- explain the psychological principles of teaching;
- differentiate between general and psychological principles of teaching;
- identify the qualities of good teaching; and
- identify the factors influencing teaching and learning.

1.2 INTRODUCTION

Teaching is an indispensible part of education. This unit on 'Principles of Teaching' will introduce you to the different important aspects of teaching and will enable you to carry out teaching in a better way so that one can

become a better teacher. Teaching, as you know, is a complex activity of facilitating learning. It is a process, which helps others to acquire knowledge, competences or values. Therefore, it is essential to make teaching efficient so that learning on the part of the students becomes successful. By the time you finish reading this unit, you will be able to discuss the concept of teaching, the principles of teaching, the qualities of Good Teaching and the factors that influence Learning.

1.3 CONCEPT OF TEACHING

Teaching is the process of facilitating the development of knowledge, skills and attitude in the learners towards achievement of particular objectives, which are pre-determined. It is a relationship among three important aspects of education– teacher, student and subject matter. It is not a mechanical process, as many of you might think. It is a humane process, and a psychological process. Teaching is a complex, multifaceted activity, which requires the teacher to juggle multiple tasks and goals simultaneously and flexibly. It is the complex art of guiding the learners through a variety of experiences to attain certain goals. It is complex because it deals with human behaviour. Therefore, different factors influence teaching-learning transactions.

Different educators and scholars have defined teaching in different ways, some of which are as the following:

John Brubacher defined teaching as “an arrangement and manipulation of a situation in which there are gaps and obstructions which an individual will seek to overcome and from which he will learn in the course of doing so.”

According to Burton, “Teaching is stimulation, guidance, direction and encouragement of learning.”

Joyce and Well defined teaching as “a process by which teacher and students create a shared environment including set of values and beliefs which in turn colour their view of reality.”

Thus, you can see that teaching is the process which involves arrangement, manipulation, stimulation and guidance, which finally lead to creation of a shared environment to achieve some predetermined objectives.

1.4 PRINCIPLES OF TEACHING

'Principle' means certain rules and regulations or bases which help in making a process efficient and effective. The following set of principles can make teaching both more effective and efficient by helping to create the conditions that support learning of the students, and minimize the need for revising materials, content, and policies. While the implementation of these principles requires a commitment in terms of time and efforts, it often saves time and energy later on, and provides maximum learning output.

1.4.1 General Principles of Teaching

The principles of teaching which are general in nature are discussed in this section.

- **Principle of Linking with Real Life:** According to this principle, teaching should not be isolated from the learners' real life. Learning should be linked with the life of the learners. It can be done by giving contextual examples, relating to the objectives of teaching in the real life, implicating the learning to real life, and so on.
- **Principle of Planning:** Being a systematic activity Teaching always demands planning. Planning makes the way/road to achieve the objectives clear. It also helps to predict the challenges and prepare accordingly. Well-planned teaching always results in good learning.
- **Principle of Flexibility:** Rigidity is harmful for good teaching. The plan of a lesson must provide scope to make necessary changes, whenever and wherever required. Teaching should be flexible to meet the unexpected situations, if any, in the classroom.
- **Principle of Selection of Material:** The material selected for teaching should be appropriate with reference to grade, nature of students, subject, and the difficulty level of the content. Right selection produces the desired results. This benefits both the teacher and the students.

- **Principle of Gradation or Division:** While teaching, the content should be divided into different steps in a systematic order. It should be presented in a way that easy and simple things come first and difficult and complicated things follow next. This gradation is necessary to keep the learners away from confusions and to make learning easier for them.
- **Principle of Democracy:** In a democratic country, the teacher is expected to produce democratic citizen and therefore, it is essential to follow the principle of democracy. Democracy means providing rights and responsibilities to the learners and equal opportunities to everyone without any discrimination. The teacher should adopt democratic attitude towards the students. He should not be dictatorial or discriminatory. The learners should have complete liberty of asking questions, resolving doubts, putting forward their opinions and so on.
- **Principle of Diagnosis and Remedial Teaching:** As you know, teaching is a complex activity and it involves different problems. Therefore, it is important that the problems of teaching and learning are diagnosed properly, and remedial measures are taken accordingly. Teaching should ensure the identification of the faults and make arrangements for remedy by conducting extra classes, compensatory classes or tutorial classes.
- **Principle of Conducive Environment:** Teaching, to a large extent, depends on the environment of the classroom– physical, emotional and social environment. So, the teacher through his or her teaching should create a conducive environment in the classroom that would result in an effective learning on the part of the learners.

1.4.2 Psychological Principles of Teaching

As you have come to know that teaching is a psychological process, there are some principles of teaching based on the psychological dimensions of teaching. These principles are discussed below.

- **Principle of Definite Aim:** Any activity without a definite aim is like a radar less ship. As teaching is a systematic process, it must have some aims and objectives. There should be a definite aim for every lesson. Without aim, teaching may go astray. So, teaching should contain a definite aim.
- **Principle of Activity (Learning by Doing):** Edgar Dale's cone of learning experience shows that the more the senses are involved in the learning process, the more effective is the learning. In case of teaching children, the child is by nature, active. The child has certain urges, which impel him to do some actions. So, teaching through activity makes learning more interesting and effective for them.
- **Principle of Co-operation:** As teaching is a complex activity, it is essential that the learners provide full support to the teacher in the process of teaching. Without the co-operation of the learners, it is almost impossible to make teaching successful.
- **Principle of Individual Differences:** A classroom generally consists of heterogeneous groups of people. Individual difference refers to the diversity among the learners which may be on account of their family background, abilities, limitations, etc. This diversity among the learners should be considered seriously right from the planning stage and throughout the process of teaching. Good teaching deals with the learners according to their individual differences.
- **Principle of Recreation:** Recreation refers to leisure time activities. The principle of recreation is based on the belief that recreation is very essential for human beings to carry on other activities appropriately. It provides refreshment to the learners and re-energizes them.
- **Principle of Creativity:** Teaching is not confined only to transmitting the ideas from one person to another, or imposing our own ideas on the learners. It should give opportunities to the learners for self-expression, and lead to their creative expression. The idea of a good teacher is to make the learners creative.

- **Principle of Interest or Motivation:** Motivation means the power of moving. The principle of interest or motivation is the most important of all principles of teaching. It is impossible to teach or to make learning happen if the learners are not interested or motivated. Therefore, it is necessary that the teachers create interest or motivation in the minds of the learners and sustain it all throughout.
- **Principle of Sympathy and Kindly Atmosphere:** Good teaching cannot take place in an atmosphere which lacks kindness and sympathy towards the learners. As mentioned earlier, teaching is a humane activity. So, it is essential that the teachers have a kind and sympathetic attitude towards the learners.
- **Principle of Revision:** This principle is based on one of the Thorndike's law of learning, i.e. the law of exercise. To make learning retained for long, the acquired knowledge should be revised immediately and repeatedly.
- **Principle of Readiness:** Like there is a proverb– 'you can take the horse to the river, but cannot make it drink water', no one can make anyone learn. So, it is essential that teaching takes place only when the learners are ready to learn. Readiness refers to the learner's readiness to learn. It indicates the learner's state of mind and body to participate in the teaching-learning process. Teaching should proceed only after ensuring readiness of the learners to learn.
- **Principle of Training of Senses:** Teaching should focus on training of senses. The power of observation, discrimination, identification, generalization and application can be appropriately developed only through the effective functioning of senses.
- **Principle of Feedback and Reinforcement:** Immediate knowledge about the results and presentation of positive reinforcement (may be in the form of praise, grade, certificates, token money or any other incentives) on success make learning easier and joyful. Therefore, teaching should follow the principle of feedback and reinforcement. The teacher should give feedback

at appropriate time and present appropriate reinforcement at appropriate time.

- **Principle of Group Dynamics:** Under the influence of group behaviour, appropriate changes in the behaviour of the individual learners take place. Therefore, teaching should create a suitable group climate in the classroom.
- **Principle of Self Learning:** Teaching should aim at enabling the learner to learn by himself/herself. Teaching should be such that it creates curiosity among the learners to learn. Their imagination needs to be fired through teaching.



LET US KNOW

- **Remedial Teaching:** Remedial teaching refers to providing extra teaching to the students who have temporarily fallen behind in their studies or need short-term support in their learning.
- **Reinforcement:** Reinforcements are stimuli that can strengthen or increase the probability of a specific response or behaviour.
- **Group Dynamics:** Group dynamics refers to the attitudes and behavioural patterns of a group. It is concerned with how groups are formed, what is their structure, which processes are followed in their functioning and the interactions and forces operating between two groups.



CHECK YOUR PROGRESS

Q.1: Mention three psychological principles of teaching.

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Q.2: Why is reinforcement important for effective teaching?

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Q.3: How does individual difference affect teaching?

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1.5 QUALITIES OF GOOD TEACHING

You may have met different teachers during your student-life. We are more comfortable with some teacher than with some others. This may be due to the difference in their quality of teaching. We can distinguish the quality of good teaching from bad on the basis of some standards. Some of the important marks or criteria or standards of good teaching are discussed in the following points:

- **Understanding the learners:** Teaching does not mean just teaching the content, it also means teaching the content to the students. Different student-characteristics may affect teaching as well as learning. For example, students' cultural and generational backgrounds influence how they see the world; disciplinary backgrounds may lead the students to approach different problems in different ways; and students' prior knowledge (both accurate and inaccurate aspects) shapes new learning. Although it is not possible to adequately measure all these characteristics, gathering the most relevant information as early as possible in course of planning and continuing to do so throughout the course, inform course design (e.g., decisions about objectives, pacing, examples, format), help explain student difficulties (e.g., identification of common misconceptions), and guide instructional adaptations (e.g., recognition of the need for additional practice).

- **Clearly Stating the Expectations:** There is amazing variation in what is expected from the students across classrooms, and even within a given discipline. Students' expectations may not match ours. Thus, being clear about our expectations and communicating them explicitly helps students learn more and perform better. Articulating our learning objectives gives students a clear target to aim for, and enables them to monitor their progress.
- **Prioritizing:** To make teaching effective, too many topics and subjects are used. Therefore, it is necessary for the teacher to make right decisions about what will be included in a course. This involves recognizing the parameters of the course (e.g., class size, students' backgrounds and experiences, course position in the curriculum sequence, number of course units), setting the priorities for student-learning, and determining a set of objectives that can be reasonably accomplished.
- **Recognizing and Overcoming Expert Blind Spots:** As experts, we tend to access and apply knowledge automatically and unconsciously (for e.g., making connections, drawing on relevant bodies of knowledge, and choosing appropriate strategies). So, the teachers intend to skip or combine critical steps when they teach. Students may become confused, draw incorrect conclusions, or fail to develop important skills.
- **Refining on the basis of Reflection and Feedback:** Teaching requires constant refinement. It is necessary to reflect continuously on teaching and be ready to make changes when appropriate. Knowing what and how to change requires us to examine relevant information on our own teaching effectiveness. Much of this information already exists (for e.g., student work, previous semesters' course evaluations, dynamics of class participation), or we may need to seek additional feedback with the help from the university teaching centre (for e.g., interpreting early course evaluations, conducting focus groups, designing pre-and post-tests). Based on such data, we might modify the learning objectives, content, structure, or format of a course, or

otherwise adjust our teaching. Small, purposeful changes driven by feedback and our priorities are most likely to be manageable and effective.

- **Aligning Objectives, Instructional Activities and Evaluation:** In teaching, the objectives, activities, and evaluation are related to one another. Aligning them saves time in the end, and leads to the forming of a better course. Teaching is more effective and learning is enhanced when the teachers articulate a clear set of learning objectives, the instructional activities support these learning objectives by providing goal-oriented practice, and the assessments provide opportunities to the students to demonstrate and practise the knowledge and skills articulated in the objectives. Besides, the instructors to offer targeted feedback can also guide further learning.
- **Based on Planning:** Planning is necessary for carrying out any systematic process. As teaching is a systematic process, it produces good result if it is based on proper planning. Planning involves various aspects of teaching— content, time, material, aids, presentation, etc. Teaching without planning may result in chaos and end up confusing the learners.
- **Democratic:** Good teaching should be democratic in nature. It should provide opportunities to the students to voice their opinions, raise questions, and clarify doubts without any hesitation. Teaching should be such as to create such kind of environment in the classroom.
- **Forward Looking and Progressive:** Good teaching is dynamic, progressive and forward looking. The teaching, which is open to adapt the developments and progresses in the field, is considered good.
- **Making the Learners Independent:** Good teaching enables the learners to learn through their own efforts. Teaching should not represent spoon-feeding. It should not make the learners permanently dependent on the teachers to learn. Teaching should only lead to learning.



CHECK YOUR PROGRESS

Q.4: Why do we need to plan before teaching?

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Q.5: How can the learners be made independent in learning?

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1.6 FACTORS INFLUENCING TEACHING-LEARNING

We understand that learning is one of the most important functions of our cognitive system. Learning brings relatively permanent change in the behaviour of the learners. Because learning involves modification of behaviour, it is influenced by a number of factors. These factors determine whether the learning is successful and if yes, to what extent it is successful. Therefore, it is essential for the teachers to identify the factors influencing learning. The factors may be categorized as—

1.6.1 Factors Related to the Learners

- ***Psychological***
  - Readiness: If the learner is ready to learn, he/she will develop motivation to learn. Along with readiness, a strong willpower is also essential to overcome hurdles and problems. Readiness will help to develop a positive attitude in learner.
  - Aptitude: Learning also depends upon the aptitude of the learner to learn in a particular field. Any learner will learn better and faster if s/he is to learn something for which s/he has aptitude. For e.g., a person with musical aptitude will learn music faster and better than a person with mechanical aptitude.
  - Motivation: It is the most important factor influencing the learner. If the learner is not motivated to learn, any amount of

force will be futile. The more is the motivation, the better will be the learning. In addition to motivation, the learner should have a definite goal. It will direct the individual appropriately, and help him to achieve the goal.

- Attitude: The attitude of the learner also affects learning. If the learner has a positive attitude towards learning, the teacher and the learning environment, learning will be more effective. Negative attitude affects learning negatively.
- Intelligence: Intelligence enables the learner to learn better and understand things and relationship between them. It includes both general and specific intelligence related to specific area of learning.
- Level of aspiration: Learning depends upon the level of aspiration to achieve. If the aspiration level is high, the learner will work hard and achieve more. However, it is also important that there should be a balance between the aspiration level and the ability of the learner.
- Attention: The learner must learn to concentrate his/her attention on learning. Attentiveness helps to have a better grasp of the learning materials. Distraction of the learner affects learning.
- Personality: There is a close relationship between a learner's personality and his/her learning style. A learner's personality determines the ways a learner controls his/her emotions and feelings during the learning process. Understanding the learners' personalities helps in understanding their motivations and their preferred method of working. This in turn can help the teacher to ensure that various types of personalities are accommodated in the teaching learning process. Based on the personality type, they communicate with their environment.

➢ ***Social***

- Friendship: Learning is greatly affected by friendship. This can be both a good thing and a bad thing. Friendship is often an invaluable support system for the learners, and they can

inspire competition, which helps learners keep an edge. However, friendships that are disruptive can distract the learners and undermine their confidence in their own abilities. However, not all friendships provide support for the learners, some can be directly undermined.

- Communication Abilities: Communication does not only means exchanging information but also understanding the emotion and intentions behind the information. It is also necessary to be able to clearly convey a message, to listen in a way that gains the full meaning of what's being said. Effective learning requires effective communication. Effective communication requires the following skills: engaged listening, nonverbal communication, managing stress in the moment and asserting oneself in a respectful way.

- ***Physical***
  - Health: Here, health indicates physical health of the learner. The learner should have good physical health. Organic defects like blindness, myopia, hypermetropia, deafness, paralysis, autism, severe handicappedness, etc. affect learning. Problems in sense organs lead to improper perception. Chronic illnesses may lead to fatigue and lack of interest.
  - Age: The age of the learner is also a factor affecting learning. Different stages of life have different characteristics. Learning occurs depending on these characteristics. For e.g., childhood stage is a hyperactive stage when most children are active in nature. So, learning will be better if it is activity-based.

1.6.2 Factors Related to the Teachers

- ***Psychological***
  - Aptitude: Whether the teacher has an aptitude for teaching also affects learning. The teachers who have teaching aptitude will be better in learning.

- ❍ Attitude: The attitude of the teacher towards the learners and towards his duties and responsibilities affects learning. If the teacher has a positive attitude, it will result in effective learning.
- ❍ Motivation: The motivation of the teacher to teach is also important for teaching. It is more effective if the motivation is intrinsic.
- ❍ Creativity: As you know, teaching is an art, so the teacher has to constantly engage in creative works while teaching. Therefore, the degree of creativity of the teacher is another factor affecting the learner.

1.6.3 Factors Related to the Environment

- ➢ Physical environment: Sufficient light and ventilation calm and clean place, normal temperature, the basic infrastructure etc. facilitate the learning processes.
- ➢ Emotional and social climate: This indicates the relationship between the teacher and learners, and among the learners. A warm, comfortable, safe and democratic learning environment provides better opportunities of learning.
- ➢ Teaching strategies: The teaching strategies used by the teacher are another factor affecting learning. The strategies, methods, and techniques of teaching should be appropriate according to the abilities, grades, background, number, etc. of the learners.
- ➢ Availability of resources: Teaching requires a number of resources like teaching learning materials, textbooks, teaching aids, etc. Their availability or unavailability also affects learning. They also require appropriate use.
- ➢ Knowledge of results as feedback: It is essential to know the amount of material grasped, so that changes may be made in the process of learning. The knowledge of results refers to getting feedback by means of testing, examination, interview, etc.

Thus, you have understood by going through this unit that teaching is considered a multifaceted activity. Therefore, to carry

out teaching systematically and efficiently, it is essential to follow some principles. We should regard any teaching activity to be effective or good on the basis of some criteria, which qualify as the markers or qualities of good teaching. While discussing the factors affecting learning, you have seen that the factors affecting learning are not exclusive of each other. Learning is affected by the interplay of various factors.



1.7 LET US SUM UP

- Teaching is a complex, multifaceted activity. It is the process of imparting knowledge and skills to the learners and moulding their attitude towards particular objectives which are pre-determined. It is the complex art of guiding the learners through a variety of experiences to attain certain goals.
- 'Principle' means certain rules and regulations or bases which help in making a process efficient and effective.
- The principles of teaching may be categorized as general and specific/psychological principles.
- The general principles of teaching are— principle of linking with real life, principle of planning, principle of flexibility, principle of selection of material, principle of gradation or division, principle of democracy, principle of diagnosis and remedial teaching and principle of conducive environment.
- The specific/psychological principles of teaching are– principle of definite aim, principle of activity (learning by doing), principle of co-operation, principle of individual differences, principle of recreation, principle of creativity, principle of interest or motivation, principle of sympathy and kindly atmosphere, principle of revision, principle of readiness, principle of training of senses, principle of feedback and reinforcement, principle of group dynamics, and principle of self learning.

- There are some qualities of good teaching which includes— understanding the learners, clearly stating the expectations, prioritizing, recognizing and overcoming expert blind spots, refining on the basis of reflection and feedback, aligning objectives, instructional activities and evaluation based on planning, democratic, forward looking and progressive Outlook and so on.
- Learning as the result of teaching is affected by a number of qualities. For the convenience of studying, the factors may be categorized under three heads— factors related to the learners, factors related to the teachers, and the factors related to the environment.
- The factors related to the learners are psychological factors (Readiness, Aptitude, Motivation, Attitude, Intelligence, Level of aspiration, Attention, Personality), Social factors (Friendship, Communication abilities), and Physical factors (Health, Age).
- The factors related to the teacher are psychological factors (aptitude, attitude, motivation, creativity, etc.)
- The factors related to the environment are physical environment, emotional, and social climate, teaching strategies, availability of resources, knowledge of results as feedback, etc.



1.8 FURTHER READING

1) Aggarwal, J. C. (2002). *Principles, Methods and Techniques of Teaching*. New Delhi: Vikash Publishers.
2) Kochhar, S. K. (1992). *Methods and Techniques of Teaching*. New Delhi: Sterling Publishers.
3) Skinner, C. E. (2004). *Educational Psychology*. New Delhi: Prentice Hall of India Pvt. Ltd.



1.9 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: The three psychological principles of teaching are—principle of activity, motivation, and individual difference. (You may write any other psychological principles of teaching)

Ans. to Q. No. 2: Reinforcement is important to create motivation for learning and to shape the behaviour of the learners in a desired way. Therefore, using appropriate reinforcement at appropriate time is important for effective teaching.

Ans. to Q. No. 3: Individual difference means the difference among the learners on various dimensions. In a classroom, the teacher has to deal with a group of learners which comprise of diverse characteristics. So, teaching is to be designed taking into consideration the differences among the learners.

Ans. to Q. No. 4: Planning is necessary for any systematic activity. As teaching is a systematic activity, it requires proper planning before carrying out the actual activity.

Ans. to Q. No. 5: Gradually, the learners should be directed to learn by themselves rather than depending upon the teacher for everything.



1.10 POSSIBLE QUESTIONS

A) Very Short Questions (Answer each question in about 50 words)

Q.1: Give an example of linking teaching with real life.

Q.2: Which principle of teaching involves repetition of the learning for the maximum retention of learning?

Q.3: Mention any one psychological factor affecting learning.

B) Short Questions (Answer each question in about 150-300 words)

Q.1: How are the principles of reinforcement and motivation related?

Q.2: Write a short note on the principle of diagnosis.

Q.3: How do the principles of teaching help in improving the quality of teaching?

Q.4: How does prioritizing helps in making teaching effective?

Q.5: What do you mean by group dynamics? How does it affect teaching?

C) Long Questions (Answer each question in about 300-500 words)

Q.1: Elucidate the qualities of good teaching.

Q.2: What are the different factors related to the teacher that affect learning? Describe how the teacher can take care of these factors for maximum learning output on the part of the learners.

*** ***** ***

UNIT 2: TAXONOMY OF EDUCATIONAL OBJECTIVE

UNIT STRUCTURE

2.1 Learning Objectives

2.2 Introduction

2.3 Meaning and Concept of Taxonomy

- 2.3.1 Meaning of the Taxonomy of Educational Objectives
- 2.3.2 Domains of the Taxonomy of the Educational Objectives

2.4 Classifications of the Domain of Taxonomy of Educational Objectives

- 2.4.1 Cognitive Domain
  - 2.4.1.1 Steps of Cognitive Domain
- 2.4.2 Affective Domain
- 2.4.3 Psycho-Motor Domain

2.5 Importance of Taxonomy of Instructional Objectives for the Teacher

2.6 Let Us Sum Up

2.7 Further Reading

2.8 Answers to Check Your Progress

2.9 Possible Questions

2.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- define the meaning and the concept of taxonomy and educational taxonomy;
- identify the objectives of educational taxonomy; and
- explain the classifications and importance of educational taxonomy.

2.2 INTRODUCTION

In the first unit i.e. Unit 1, we have already discussed the importance of educational principles and the techniques of good teaching that can promote the effectiveness of the teaching-learning process. In this unit, we are going to discuss the taxonomy of educational objectives which are belonging to

three behavioural domains-cognitive, affective and psycho-motor. Further, this unit will also focus on the importance of taxonomy of instructional objectives for the teacher which are essential to carry out the teaching learning process in an effective way. Bloom's Taxonomy refers to a classification of the educational objectives that educators or teachers can set for the learners or students as learning objectives. The taxonomy was first presented in 1956 through the publication of "The Taxonomy of Educational Objectives, The Classification of Educational Goals, Handbook I: Cognitive Domain," by **Benjamin Bloom** (editor), M. D. Englehart, E. J. Furst, W. H. Hill, and David Krathwohl.



Benjamin Bloom (February 21, 1913-September 13, 1999): was an American Educational Psychologist who made contributions to the classification of educational objectives and to the theory of mastery learning. He designed the taxonomy in order to help teachers and instructional designers to classify instructional objectives and goals.

2.3 MEANING AND CONCEPT OF TAXONOMY

The basic meaning of taxonomy is a classification system. Bloom designed the taxonomy in order to help teachers and instructional designers to classify instructional objectives and goals. The taxonomy relies on the idea that all learning objectives and outcomes have not equal merit. In the absence of a classification system (a taxonomy), teachers and instructional designers may choose, for example, to emphasize memorization of facts (which makes for easier testing) rather than emphasizing other (and likely more important) learned capabilities.

Bloom's classification of educational objectives in Taxonomy of Educational Objectives, Handbook 1: Cognitive Domain (Bloom et al., 1956), addresses the cognitive domain (as opposed to the psychomotor and affective domains) of knowledge. Bloom's taxonomy provides a structure in which to categorize instructional objectives and instructional assessment.

Hortan (1970) has explained that an instructional objective is an ability or skill expressed in behavioural forms which the pupils acquire or develop where the teaching has been successful in doing what it sets out to do. It means that the educational objectives must be organized in such a way that the pupil can ensure their skills and also can enhance their abilities.

2.3.1 Meaning of the Taxonomy of Educational Objectives

The taxonomy of educational objectives basically indicates the classification or instructional design for processing the learning

system for its effectiveness in an instructional situation. Taxonomy in instructional objectives means naming the different behavioral objectives desired to be achieved by the learner after undergoing some learning experiences. The taxonomy of the educational objectives should be set up on the basis of considering the philosophical, social, psychological and scientific principles. From educational point of view the taxonomy is divided into three important domains such as cognitive domain, affective domain and psycho-motor domain which differentiate behaviour. These three domains i.e. cognitive, affective and psycho-motor indicate the meaning of knowing, feeling and doing behavioural activity of an individual.

To give the instruction to the learners and also in order to test the performance of the learners, the taxonomy related to cognitive domian, has been forwarded by Benjamin Bloom and his associates namely M. D. Englehart, E. J. Furst, W. H. Hill. The second one is related to affective domian developed by David Krathwohl and his associates and the third related to psycho-motor domain by Simpson. Bloom who from Chicago (USA) University, was the pioneer of this taxonomy of educational objectives.



CHECK YOUR PROGRESS

Q.1: What is meant by Educational Taxonomy?

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Q.2: In which year did Bloom develop the taxonomy of educational objectives?

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2.3.2 Domains of the Taxonomy of the Educational Objectives

The main aim of taxonomy of educational objective is to provide a structure in order to categorise the instructional objectives and instructional assessment. The basic meaning of taxonomy is a classification system. And thus, through this classification, it provides a great help to the teacher and the instructional designer to meet the instructional objectives and the goals of an institution. Bloom's taxonomy in theory helps the teacher and the designer to prepare the objectives in a more effective way that will be more fruitful or convenient to adopt appropriate measures to disseminate the capabilities of the learner and also to improve the higher order thinking skills among the learners in an instruction.

If we explain the three domains i.e. cognitive domain, affective domain and psycho-motor domain under the educational objectives separately then the clear picture of the educational objectives of these domains will be found in the following ways:

a) **The Cognitive domain:** Under the cognitive domain, the educational objectives indicate the knowledge which reveals those activities such as remembering, recalling, knowing, thinking, problem solving, creating etc. It is the domain under which most of the work specifically the development of the curriculum has been done. Bloom and his associates categorized this cognitive domain in 1956.

b) **The Affective domain:** The educational objective of the Affective domain basically indicates the system of feelings that emphasizes an emotion or a degree of acceptance or rejection. This domain is classified by Krathwohl, Bloom and Massia in 1964.The affective domain and cognitive domain have close relationship in educational taxonomy.

c) **The Psycho-motor domain:** The abilities by which a child's physical and motor abilities are required to develop, is known as conative or psycho-motor domain. It was categorized in 1966 by

Simpson and Harrow (1972). Psycho-motor domain gives the emphasis on habit formation, naturalization, co-ordination, control manipulation, impulsion etc.



CHECK YOUR PROGRESS

Q.3: What are the focus areas of cognitive, affective and psycho-motor domain?

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2.4 CLASSIFICATIONS OF THE DOMAIN OF TAXONOMY OF EDUCATIONAL OBJECTIVES

On the above, we have already discussed the classifications or domains of taxonomy of educational objectives which are mainly divided into Cognitive, Affective and Psycho-motor domain. Cognitive, Affective and Psycho-motor domain have been further divided into some other sub-categories which are also known as “Taxonomies of Objectives”.

The **classifications of each domain of taxonomy** of educational objectives have been divided into the following ways:

Taxonomy of Education

Cognitive	Affective	Psycho-motor
Knowledge	Receiving	Perception
Comprehension	Responding	Set
Application	Valuing	Guided Responses
Analysis	Organization	Work Mechanism
Synthesis	Characterized Value	Complex Overt Behavior
Evaluation	Adaptation	Origination

2.4.1 Cognitive Domain

The classifications of taxonomy under the cognitive domain have been developed by Bloom on the basis of complexity of mental activities. The categorization progress is from simple to complex.

According to Bloom, the classification of the Cognitive domain is based on two main categories: (i) knowledge and (ii) intellectual abilities and skills.

Under the Cognitive domain, there are six categories, each has many sub-sections or some hierarchies, which are shown below:

a) Knowledge: In order to test the human behaviour the learning situations emphasise memory, which may be 'recall' or 'recognition'. The recall behaviour is also similar to the learned behaviour . In learning situation, the acquisition of knowledge basically requires that expectation that during the learning period, students must have to store some information and later it will be recalled. Therefore, the knowledge is the finer part of cognitive domain; it is because it includes the process of relations and judgment of the higher order of mental thinking. In this knowledge section of cognitive domain, the memory is considered the main psychological process while in other categories of cognitive domain; the memory is only a part of the process. The various arrangements of knowledge part under the cognitive domain is shown below in a hierarchical manner:

A) Knowledge of specifics
   i) Knowledge of Terminology
   ii) Knowledge of Specific Facts

B) Knowledge of Ways and Means of dealing with specifies.
   i) Knowledge of Conventions
   ii) Knowledge of Trends and Sequences
   iii) Knowledge of Classification
   iv) Knowledge of Criteria
   v) Knowledge of Methodology

C) Knowledge of Universals and Abstractions in a field

i) Knowledge of Principles and Generalizations

ii) Knowledge of Theories and Structures.

- Defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states are the keywords or action verbs of the category of Knowledge under the Cognitive domain.

  In cognitive domain, comprehension, application, analysis, synthesis and evaluation are categorized under the category **of intellectual abilities and skills**.

b) Comprehension: Comprehension consists in the maximum weightage of intellectual abilities and skills. When a student has the chance to communicate then it will develop the abilities and skill of the learner as to how to communicate, and what should be communicated. It also helps the learner to use the idea or to think in the process of communication. Communication may be verbal, written and symbolic.

The word comprehension is generally associated with reading comprehension. But as a behavioural term which is developed by Bloom, the term is used not in the sense of complete understanding but to denote those things, behaviours and reaction which convey the literal meaning of communication.

In the classification, the comprehension consists of **three forms**. First is **translation** which means to present communications in other languages. Second type of behaviour is **interpretation** where the comprehension takes place as a whole and whose comprehension is put it into the whole of new thoughts. The third type of behaviour is **extrapolation,** where on the basis of it, the behavioural situations and tendencies can be predicted.

The key words or the action verbs of the Comprehension are: comprehends converts, defends, distinguishes, estimates, explains, extends, generalizes, gives examples, infers, interprets, paraphrases, predicts, rewrites, summarizes, translates etc.

c) **Application:** In this stage, the learners will be able to apply certain rules and procedures on the basis of learning experiences in order to retain the solution of a problem or to apply certain principles to predict the result in a controlled situation. Applies, changes, computes, constructs, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses are the keywords or action verbs of the category of Application.

d) **Analysis:** Analysis refers to an understanding at a higher level. Analysis indicates classifying the information into the different categories so that it is easier to understand well and to clarify more vividly. This classification facilitates the ordering of thoughts. Thus, analysis helps in ordering the thoughts and in bringing clarity to the ways of communication. Analysis deals with the fact of relationship and interaction between two elements or more. Actually, analysis consists of the following three levels- (i) analysis of elements, (ii) analysis of relationship and (iii) analysis of organizational principles.

The keywords or the action verbs of the Analysis are: analyzes, breaks down, compares, contrasts, diagrams, deconstructs, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, relates, selects, separates etc.

e) **Synthesis:** Synthesis refers to the completeness of combining the different elements. It is a process to work with the elements or parts and thus combining these elements for deriving the form of wholeness. The synthesis category includes the activities of three levels, such as, (i) production of a unique communication, (ii) production of a plan and (iii) derivation of a set of abstract relation.

Categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes etc. are the keywords or action verbs of Synthesis.

f) Evaluation: Evaluation is the final step of the cognitive domain which is linked with the process of making the value judgment on the performance of the learners. Judgment of this cognitive level is based on two things i.e. internal evidences and external evidences. Internal evidences refer to the judgment of logical accuracy, consistency and other internal criterions. Judgment in terms of external evidences means the evaluation of the knowledge of some major theories and facts related to some particular system of education.

Appraises, compares, concludes, contrasts, criticizes, critiques, defends, describes, discriminates, evaluates, explains, interprets, justifies, relates, summarizes, and supports are some of the keywords or the action verbs of this category.



ACTIVITY 2.1

How are the knowledge, comprehension, application, analysis, synthesis and evaluation under the cognitive domain inter-linked in an educational objective? Explain it with example.

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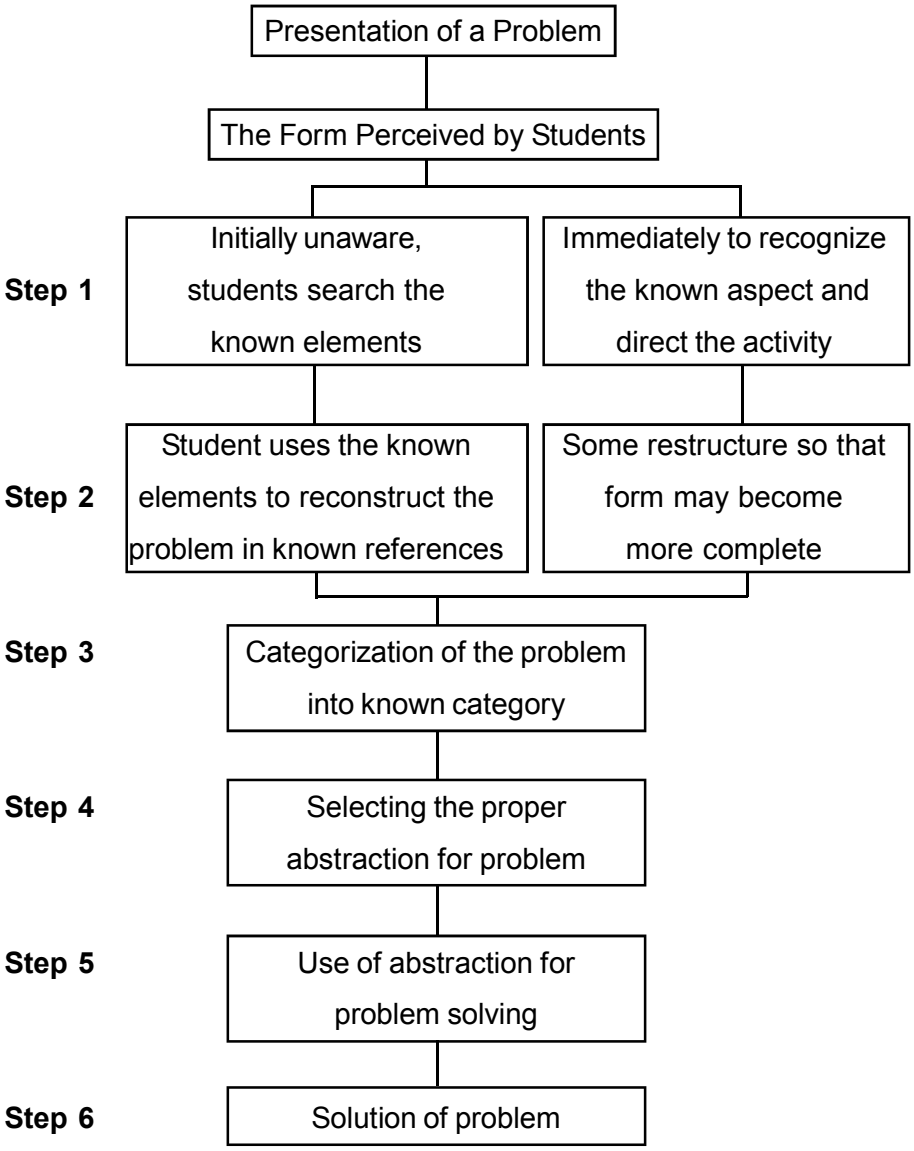
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2.4.1.1 Steps of the Cognitive Domain

The **steps of the cognitive domain** are shown in the following diagram.



2.4.2 Affective Domain

Already we have discussed that the affective domain has been developed by Krathwohl, Bloom and Massia in 1964. It is concerned with the five main objectives of behavioural expression. The categories and sub-categories of the affective domain are explained in the following sequences:

Main Objectives		Behavioural Expression	
I)	Receiving	a)	Awareness
		b)	Willingness to receive
		c)	Controlled and selected attention
II)	Responding	a)	Acquiescence in responding
		b)	Willingness to respond
		c)	Satisfaction in response
III)	Valuing	a)	Acceptance of a value
		b)	Preference for a value
		c)	Commitment
IV)	Organization	a)	Conceptualizing of a value
		b)	Organization of a value system
V)	Characterization by a value	a)	Generalized set
		b)	Characterization

I) Receiving: In affective domain, receiving is the first and foremost learning step where the learner is sensitized to the existence of certain stimuli. The learner may be willing to recieve or to attend the stimuli. Receiving is the pioneer step on the basis of which the process of further learning is going on. Receiving can be divided into the following three sub-categories which indicate three different levels of attending to an object:

a) Awareness: In the affective domain, awareness means becoming aware of or making conscious of something. It is the starting point of affective domain.

b) Willingness to receive: After becoming aware or conscious of a phenomenon or an object, the learner expresses his or her willingness to accept the phenomenon or the object. Willingness is based on the learners' wants or as per their desires.

c) Controlled or selected attention: Sometimes the students are not able to describe the stimulus through proper symbols and also the perception of the students takes place without the evaluation. In such a situation, the learner can select and

attend to a favoured stimulus in spite of the presence of the some competing and distracting stimuli.

Keywords or the action verbs of this category are: asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits, erects, replies, uses etc.

II) **Responding:** In responding the learners not only pay attention to acquisition of learning only but also are involved in the process of learning. At this level, they not only perceive the learning or stimulus, but also practically apply this knowledge or information received from the learning in the teaching learning process. Thus, in this level, the student learns by doing. This category is based on the promotion of interest and also describes the objectives of interest. Actually, the fact is that, in this category, the children are totally involved in the situation and they do something for their satisfaction. This category is also divided into some other sub-categories, which are:



Acquiescence: willingness to do what somebody wants and accept their opinions even though you are not sure that they may be right.

a) ***Acquiescence* in Responding:** In this level, the student does some activity but he or she may not be sure about the need and importance of such activity. It means that the learner starts making response without feeling the necessity of doing so. The students follow the principles of maintaining health, completing the home work or follow the rules of play ground etc. These are some of the examples under the category of acquiescence in responding.

b) **Willingness to Respond:** Willingness means the desire to respond or it is directly linked with the voluntary act of responding i.e. called self-desire. In this step, the respondent has a commitment to work at his or her own not for some external force or fear of punishment. To search a book for obtaining information, to become aware of the present problems, willingly participate in research plans or to show interest and to voluntarily participate in intellectual activities etc are some of the examples under the sub-category of willingness to respond.

Answers, assists, aids, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes etc. are the **keywords or action verbs** of the category of Responding under the Affective domain.

III) **Valuing:** In educational objectives, valuing implies accepting the phenomena or the variable to consider it as worth and meaningful for the learners. Acceptance of the value, preferences for a value and commitment are the three sub-categories of this objective. Acceptance of the value indicates that behaviour of the learner which implies the consistency of the response to the class of object or to a fact with which the belief or attitude is associated. Preferences for a value mean that behaviour of the learner where the perception of the learner is associated with the impression to the particular phenomena and thus they try to pursue that value with great confidence. In all the stages of the learning objective, the learner asserts himself or herself with a belief to pursue a course with a high degree of commitment. Completes, demonstrates, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works etc are the **keywords or action verbs** of this domain.

IV) **Organisation:** Organisation means trying to interrelate or assembling the values of educational objectives. This category has two sub-categories i.e. conceptualizing of values and organization of a value system. Conceptualizing of values helps the individual to understand the interrelationship among values which it is imperative for the learners to perceive in due course of time. Organization of a value system implies synthesizing different values into one new value or complex value with a higher order of arrangement.

Keywords or action verbs of this category are: adheres, alters, arranges, combines, compares, completes, defends, explains,

formulates, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes etc.

V) **Characterization by a Value:** This step of value implies the accumulation of different values into one which can be accepted as a universal view.

Acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, verifies *etc are the* ***keywords or action verbs*** *of this domain.*

2.4.3 Psycho-Motor Domain

Simpson (1966) and Kwilor (1970), Harrow(1972), Dave (1975), tried to categories the aim of this domain. This domain includes physical movements, co-ordination, and use of the motor skill areas. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution. According to this categorization, the domain has been divided into seven sub-categories from the simplest behaviour to the most complex behaviour.

1) **Perception:** Perception means the ability to use the sensory cues to guide motor activity. It includes basically three elements such as awareness of things through sense organs, awareness towards specialties and awareness of relations. This category basically indicates such **keywords or action verbs** such as chooses, describes, detects, differentiates, distinguishes, identifies, isolates, relates, selects etc.

2) **Set:** It means readiness to act. It includes basically physical, mental and emotional set for adjustment. Sometimes it is also called the 'mindsets' of the learner behavoiur. These three sets are dispositions that predetermine a person's response to different situations. Begins, displays, explains, moves, proceeds, reacts, shows, states, volunteers are some of the **keywords or action verbs** of this domain.

3) **Guided response:** Behaviour and activities of the learners have been formed under the stage of guidance. Guided response has come after imitation, trial and error process. Although the first stage of learning is a complex skill but it adequacy of performance is achieved by practice only. Copies, traces, follows, react, reproduce, responds are the **keywords or action verbs** of this category.
4) **Work Mechanism:** This is the intermediate stage for learning a complex skill. Learned responses have become habitual and the movements can be performed with some confidence and proficiency. This category falls under the two facts i.e. for doing some work there has to be obtain some degree of skill and also there has to be self-confidence for conducting the work. Assembles, calibrates, constructs, dismantles, displays, fastens, fixes, grinds, heats, manipulates, measures, mends, mixes, organizes, sketches etc are some of the **keywords or action verbs** of this category.
5) **Complex Overt Response:** In the Psycho-Motor domain, the skillful performance of physical activities requires complex movement pattern. This category includes performing without hesitation (known as automatic performance) with proficiency. Proficiency is indicated by a quick, accurate, and highly coordinated performance, requiring a minimum of energy. For example, players often utter sounds of satisfaction when they hit a tennis ball or throw a football, because they can tell by the feel of the act what result will be produced. The **Keywords or action verbs** of this stage are the same as Mechanism, but this category of behaviour consists of the adverbs or adjectives that indicate that the performance is quicker, better, more accurate, etc.
6) **Adaptation:** In this behavioural stage, skills are well developed and the individual can modify movement patterns to fit special requirements. To modify the instruction in order to meet the needs of the learners is an instance of this step of adaptation of the

educational objective. Adapts, alters, changes, rearranges, reorganizes, revises, varies are the **keywords or action** verbs of this sub-category.

7) **Origination:** This category implies to create new movement pattern to fit a particular situation or specific problem. Learning outcomes emphasize creativity based upon highly developed skills. The following are the **keywords or action** verbs in this stage: arranges, builds, combines, composes, constructs, creates, designs, initiate, makes, originates etc.

2.5 IMPORTANCE OF TAXONOMY OF INSTRUCTIONAL OBJECTIVES FOR THE TEACHER

After having a fair outlook on the three types of taxonomy of educational objectives, now we are going to focus on how far the knowledge of taxonomy in instructional objectives helps the teacher for carrying out the role in the teaching learning process in an effective way. The taxonomy of educational objectives can help the teacher in the following ways:

- For a classroom or an instructional learning, educational taxonomy helps the teacher to prepare the curriculum concerning the factor of suitability with the mental level of the learners.
- It also helps the teacher in maintaining a desirable balance in teaching factual objects and complexity.
- It helps the teacher for further improving the validity of the content, if the contents are not constructed earlier properly.
- The taxonomy of educational objectives help the teacher in analyzing the criterion test which is constructed by himself or herself for the assessment of the learning competency among the learners in an instructional situation.
- Through the various categories and sub-categories of educational taxonomy, the learners are able to acquire those objectives such as knowledge, understanding and other skills which are taught by the teacher in the school.

- With the help of educational taxonomy, a teacher is able to teach the students about the use of behavioural terms properly in writing the educational objectives.



2.6 LET US SUM UP

- The taxonomy of educational objective was first presented in 1956 through the publication "The Taxonomy of Educational Objectives, The Classification of Educational Goals, Handbook I: Cognitive Domain," by Benjamin Bloom (editor), M. D. Englehart, E. J. Furst, W. H. Hill, and David Krathwohl.
- Taxonomy means a classification system. Taxonomy in instructional objectives means naming the different behavioural objectives desired to be achieved by the learner after undergoing through some learning experiences.
- The taxonomy of the educational objectives should be set up on the basis of considering the philosophical, social, psychological and scientific principles.
- From educational point of view the taxonomy is divided into three important domains i.e. cognitive domain, affective domain and psycho-motor domain which differentiate behaviour.
- Cognitive, affective and psycho-motor domains indicate the meaning of knowing, feeling and doing behaviour or physical activities of the individual.
- Knowledge, comprehension, application, analysis, synthesis and evaluation are the sub-categories of Cognitive domain.
- Receiving, responding, valuing, organization and characterization value are the sub-categories of Affective domain.
- Perception, set, guided responses, work mechanism, complex overt behaviour, adpatation and origination are the sub-categories of Psycho-motor domain.
- By using the various behavioural terms in educational objectives properly, the teacher can carry his or her teaching duty in a very effective way.

- Each category has some specific key words or action verbs which indicate the behavioural terms of educational objectives.



2.7 FURTHER READING

1) Asthana, Dr. Bipin (2007). *Measurement and Evaluation in Psychology and Education*. Vinod Pustak Mandir.



2.8 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Taxonomy of educational objectives basically indicates the instructional design for processing the learning system in an effective way. And also the taxonomy of educational objective means the educational objectives must be organized in such a way that the pupil will be able to ensure their skills as well as enhance their abilities from their learning experiences.

Ans. to Q. No. 2: In 1956, Bloom has developed the taxonomy of educational objectives.

Ans. to Q. No. 3: In **cognitive domain**, the educational objectives indicates the acquisition of knowledge that reveals those activities such as remembering, recalling, knowing, thinking, problem solving, creating etc. It is the domain under which most of the work specifically the work of curriculum development has been done.

The educational objective of **affective domain** basically indicates the system of feelings that emphasize an emotion or a degree of acceptance or rejection. The affective domain and cognitive domain has the close relationship in educational taxonomy.

The abilities by which child's physical and motor abilities are being developed, is known as **conative or psycho-motor domain**. Psycho-motor domain gives the emphasis on habit formation, naturalization, co-ordination, control manipulation, impulsion etc.



2.9 POSSIBLE QUESTIONS

A) Short Questions (Answer each question in about 150-300 words)

Q.1: What is meant by taxonomy of educational objectives? What are their classifications? Explain.

Q.2: Elaborate briefly the needs and importance of:

a) Cognitive domain,

b) Affective domain, and

c) Psychomotor domain.

B) Long Questions (Answer each question in about 300-500 words)

Q.1: How does the taxonomy of educational objectives help in an instructional situation? Discuss.

Q.2: Explain the behavioural expression of the cognitive and affective domain of taxonomy of educational objectives.

Q.3: Why are the knowledge of taxonomy of instructional objectives important for a teacher in an instructional situation? Discuss.

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UNIT 3: TEACHING TECHNIQUES

UNIT STRUCTURE

3.1 Learning Objectives
3.2 Introduction
3.3 The Meaning of Teaching Techniques
3.3.1 Need and Importance of Techniques of Teaching
3.3.2 Different Techniques of Teaching
3.4 The Meaning of Teaching Strategies
3.4.1 Types of Teaching Strategies
3.4.2 Difference between Teaching Strategies and Teaching Methods
3.5 The Concept of Maxims of Teaching
3.5.1 Benefits of Maxims of Teaching
3.5.2 Different Maxims of Teaching
3.6 Let Us Sum Up
3.7 Further Reading
3.8 Answers to Check Your Progress
3.9 Possible Questions

3.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- explain the concept and different forms of techniques of teaching;
- define the concept of teaching strategies;
- describe the meaning of maxims of teaching; and
- discuss how different maxims of teaching may prove helpful for successful teaching.

3.2 INTRODUCTION

A teacher is the only person who can make a classroom lively by teaching enthusiastically. It is the sole responsibility of a teacher to provide instruction to their students and make the teaching-learning process effective.

However, how should a teacher provide instruction? What are the techniques a teacher should use while teaching? How does a teacher teach his students with more perfection? All these questions come to the mind of a teacher while teaching. These are also some of the biggest challenges a teacher has to face while presenting a lesson to the children. If the presentation of the lesson is effective, the students can reach the goals of life by the acquisition of knowledge in the true sense. With the help of this unit, you will be able to understand the different maxims or guidelines or methodical procedures to be used by a teacher to make his teaching effective and more fruitful.

3.3 MEANING OF TEACHING TECHNIQUES

Teaching Technique is a mode of executing a plan for facilitating learning on the part of the learners. It analyses teaching in terms of goal-directed interrelated teaching behaviour for achieving limited instructional goals. It provides an analytic approach to teaching. Teaching technique used in a particular teaching-learning situation depends on many factors including the objectives, the teaching methods, the ability of the students, the personality and experiences of the teachers and so on. The analytical approach not only helps in better understanding of teaching on the part of the teachers, but also improves the effectiveness of training by simplifying the training tasks to be learnt. (Jangira 1983).

3.3.1 Need and Importance of Techniques of Teaching

The need and importance of the techniques of teaching can be discussed as the following:

- One of the most important needs of the techniques of teaching is that, it helps to attract the students' attention in the classroom.
- Proper use of techniques in teaching makes the students interested in the subject and creates eagerness to learn more.
- They stimulate the mind of the students to learn.
- They make the children to understand the subject rather than just memorize it.

- They encourage the students to prepare for the lesson before the commencement of class.
- They are necessary as a means of creating or sustaining interests among the children.
- Proper use of techniques of teaching leads to the retention of subject matter taught to children more thoroughly.

3.3.2 Different Techniques of Teaching

The process of teaching involves the use of various devices, techniques, strategies or tactics besides following the general principles and maxims of teaching. Here, we are going to learn about some important techniques of teaching. These techniques are basically used for oral teaching. They are as follows:

- **Narration:** Narration is one of the important techniques for communicating knowledge. The purpose of narration is to present a clear, vivid, interesting and orderly sequence of learning events to the children. Narration is an art for the teachers to present his/her lesson in the form of story by giving an account of the events to make his teaching more interesting. To be a good narrator, a teacher should know the skill of using proper language and speech in the classroom.
- **Description:** Description is like narration. Description is defined as "the act of representing a thing by words, amount of the properties or appearances of something." (Kochhar 2004, Pg. 86). If we explain it in simple words, we can say that description is the depiction of any event, persons, or events in words. The main purpose of description is to present the matter of teaching in the form of mental picture or image among the students. A study of descriptive essays, poems and other forms of literature in various subjects will help a teacher to develop the powers of description.
- **Explanation:** Explanation means the art of talking to make one understand the concept, theory, idea, or action clearly. Explanation

is more difficult than describing or giving the factual statements of an event. Explanation demands the skill of using language with simplicity, fluency, and continuity of deliberation. Explanation also depends upon the mastery of the subject matter, coherent thought process with a good deal of self-confidence in mind. In the process of explanation, the teacher should also keep in close touch with the students to address their needs.

- **Questioning:** Questioning is one of the most important techniques of teaching. It is the most effective means of inter-communication between the teacher and the students who are taught. The success of a teacher in teaching a lesson depends on his ability of questioning. Questions may be asked in different situations of teaching with different objectives in view. It may be asked at the beginning of teaching with a view to testing the previous knowledge of the learners. It may be used at the middle to draw and sustain attention and interest. It may also be used at the end for testing and recapitulating of knowledge.
- **Answering:** The problem of dealing with answers is closely related with that of questioning. Good answers depend a great deal upon the questions that are put to the class. Good answers are clear, concise and simple in language. This is possible only if the questions are simply worded, concise, brief, and of developing type. The manner of dealing the answers received from the children bears great importance on the success of class teaching.
- **Illustrations:** This is another technique of teaching which deals with the use of aids that helps in clarifying an abstract idea in the learners. Here, the familiar things are used to clarify the difficult thoughts or concepts confronted by the teacher. Use of illustration is very common in the lower stage of learning. It makes the teacher's subjective nature of instruction more objective, concrete and realistic to leave a better impression in the minds of the students. The use of illustration may develop interest and

curiosity in learning. It may also develop the power of observation, perception, and judgment.

3.4 MEANING OF TEACHING STRATEGIES

In general sense, we can explain the meaning of teaching strategy as an overall design of how a lesson will be executed or delivered by a teacher to his/her students in the classroom. Teaching strategies may also be referred to as the structure, system, methods, techniques, procedures and process used by a teacher while teaching or imparting instruction to the students. The term strategy means those procedures and methods by which the objectives of teaching are realized in the class.

We can understand the concept of teaching strategy more clearly and precisely with the help of the following definitions:

According to B.O. Smith, "Teaching strategy refers to a pattern of teaching acts that serves to attain certain outcomes and to guard against others. A teaching strategy is a purposefully conceived and determined plan of action."

B.B. Strasser (1964), defines a teaching strategy as, "A generalized plan for a lesson(s) which includes structure, desired learner behaviour in terms of the goals of instruction, and an outline of tactics necessary to implement the strategy."

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

From the analysis of the above definitions, we can highlight the following aims of teaching strategies:

- Teaching strategy is a generalized plan of the whole lesson plan.
- It consists of the structure of teaching, objectives of teaching and techniques of evaluation of teaching.
- It aims at ensuring the learning of certain things by a learner within a very short period, and as soon as possible.

- Teaching strategies aim to engage every learner in the exchange of ideas.
- It also aims at minimizing the number of wrong responses in the learning process of the students as they learn in a process with proper concept, principles etc.
- It aims at ensuring the attainment of certain content objectives.

3.4.1 Types of Teaching Strategies

The selection of strategies for teaching depends on the nature of organization of human activities. We can divide different teaching strategies into two categories. They are as the following:

a) **Autocratic Teaching Strategies:** Autocratic teaching strategies may be stated in general terms as teacher-centered methods. Here, the teacher exercises full control over his students and they are given the least chance to act freely in the class. Here, the students are allowed to do whatever the teacher wants them to do. Here, the students are not given enough scope for expressing their ideas and views. Some of the important autocratic teaching strategies are: Story Telling method, textbook method, lecture method, demonstration method, and tutorial method.

b) **Democratic Teaching Strategies:** These Strategies are mostly child-centric by nature. Democratic teaching strategies usually aim towards the development of affective domain of the children. Here, the students are not just passive listeners. This strategy helps the students to engage themselves fully in their learning process. The students as well as the teachers are equally active in the class. The purpose of this strategy is to bring the all-round development of students. The important democratic strategies of teaching are– question-answer method, discussion method, heuristic method, discovery method, project method, role-playing method, brainstorming, Bloom's Mastery Learning Strategy, and Seminar.

We can represent the types of teaching strategies diagrammatically as follows:

Types of Teaching Strategies	**Autocratic Teaching Strategies** ➢ Story Telling Method ➢ Textbook Method ➢ Lecture Method ➢ Demonstration Method ➢ Tutorial Method **Democratic Teaching Strategies** ➢ Question-Answer Method ➢ Discussion Method ➢ Heuristic Method ➢ Discovery Method ➢ Project Method ➢ Role Playing Method ➢ Brain Storming ➢ Bloom's Mastery Learning Strategies ➢ Seminar



ACTIVITY 3.1

According to you, which democratic method of teaching can increase the interaction between the teachers and the students to the maximum? Discuss with examples.

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LET US KNOW

Three terminologies are used with reference to teaching. They are:

Methods of Teaching: Methods of teaching is directly related to the presentation of the lesson.

Strategies of Teaching: Strategies of teaching are those methods and procedures by which objectives of teaching are realized in the class.

Tactics of Teaching: It is that procedure by which new knowledge is fixed in the minds of students permanently. Teaching tactics are related to that behaviour of the teacher, which he/she manifests in the class, i.e., the development of teaching strategies by giving proper stimulus for timely responses, drill and practices etc.

3.4.2 Difference between teaching strategies and teaching methods

However, the terms 'methods' and 'strategies' have the same objectives, yet they differ in certain respects, which are as the following:

- Teaching method is limited to the presentation of the subject matter, but when we try to achieve some objectives by any method, it becomes strategy.
- Method is a term of pedagogy whereas strategy is a term, which gets its origin to military science.
- Assumption of teaching strategy is that teaching is science while the assumption of teaching methods is that teaching is an art.
- Teaching strategies are based on the micro approach to teaching, whereas teaching methods are based on the macro-approach to teaching.
- Teaching strategies are based on the modern theory of human organization, whereas teaching methods are based on classical theory of human organization. For example, lecture is a teaching method but when this method is used to achieve certain predetermined objectives, it becomes strategy of teaching.
- The purpose of teaching method is effective presentation of the subject matter, while the purpose of teaching strategy is to create conducive learning environment in the class.

Thus, we can see that the methods and strategies, despite being the same, are different.



CHECK YOUR PROGRESS

Q.1: What are the teaching techniques?

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Q.2: Define teaching strategies.

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Q.3: List out two point of differences between teaching strategies and teaching methods.

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LET US KNOW

The assumption of **brainstorming** as a method of teaching is that a group of people can give more ideas than a single person. In this way, the problem can be analysed and evaluated more comprehensively. In this method of teaching, a problem is given to the students, and then they are asked to put forward their views on the problem one by one. Thus, many views on this problem, the causes and possible solutions to the problem come to light. Then, conclusion can be drawn after evaluating these jumbled ideas. We can highlight some merits of this method like the following:

- Both cognitive and affective domain of learning can be achieved through this method.
- Good ideas can be inculcated in the students through this method.
- Imaginative power of the students can be developed through this method.

3.5 THE CONCEPT OF MAXIMS OF TEACHING

We can understand the term ***'maxims of teaching'*** as the general guidelines for teachers to make teaching more effective. With the help of these maxims, a teacher can bring modifications in his/her terms of teaching. We know that teaching is a skilled activity. It is necessary for every teacher to develop these skills, and therefore, the knowledge of maxims of teaching is the need of the hour. It is helpful in obtaining the active involvement and participation of the learners in the teaching-learning process. The use of proper maxims of teaching can enable a teacher to raise interest among the learners and motivate them to learn.

3.5.1 Benefits of Maxims of Teaching

We can highlight the benefits of Maxims of Teaching as the following:

- Use of maxims of teaching simplifies the process of teaching.
- It makes the teaching-learning environment very joyful.
- Maxims of teaching make teaching purposeful.
- It also helps the students in their process of analysis and synthesis.
- Proper use of maxims of teaching develop scientific attitude among the students.
- It leads to the principle of learning by doing.
- Maxims of teaching also helps to develop creative thinking among the students.

3.5.2 Different Maxims of Teaching

After a detail discussion on the concept and benefits of maxims of teaching, we are now going to discuss in detail the various maxims of teaching. These are as follows:

- **Proceed from the Known to the Unknown:** One of the most natural and simple way for a teacher to teach a lesson is to proceed from the known to the unknown. It means a teacher should proceed to teach a child from the facts which are already known to them, and then proceed to the facts which are unknown to them. This may help a child to relate the things unfamiliar to them. For doing this, a teacher must have information about the previous knowledge of the child. The use of this maxim can help to arouse the interest in child in their further learning. Besides, this maxim facilitates the learning process and economizes the efforts of the teacher. For example, if a lesson is on profit and loss in Mathematics, a teacher can relate some instances from the daily life like buying and selling goods and the profit and loss made by the shopkeepers.
- **Proceed from Simple to Complex:** This maxim indicates that a child while teaching must be first acquainted with the simple things and then slowly progress to the complex ones. If a child proceeds from simple to complex while learning, he/she will be motivated to learn and will take much interest in the lesson. The maxim simple to complex refers not only to the teaching of a single lesson, but also to the framing of a syllabus of work for children. This indicates that while preparing a syllabus, a teacher must take into account that a syllabus should contain the simple matter first, and then proceed to the complex one. For example, in a class of science while teaching about parts of a flower, a teacher must proceed with showing a flower, and then come to teach its parts.
- **Proceed from Indefinite to Definite:** Whenever a child learns something for the first time, the idea remains vague to his/her mind. This can be made clear only with this maxim. The idea behind an effective teaching is to make clear every word and

ideas presented to the child like a picture. In this context, the use of pictures, actual objects, diagrams, and other devices, must be frequently made to clarify ideas.

- **Proceed from the Concrete to the Abstract:** At the beginning, a child is incapable of understanding the abstract materials, because the child's imagination is greatly aided by concrete material. We can give an example such as if we present in front of a child 1 + 1 = 2, it remains very vague and seems abstract to be understood by the child. However, if the same thing is presented by a teacher showing one pencil and pen and then describe the idea that 1 pen and 1 pencil equals to 2 objects will make the abstract idea look concrete. Hence, in course of teaching, the teacher has to begin with concrete matters and then slowly proceed towards abstract ideas.
- **Proceed from Particular to General:** One of the important maxims of teaching is to proceed from particular to general. While teaching, a teacher should always present an example of particular incidents or objects, and then try to generalize it among the students. It will help to bring a clear picture about the topic which a teacher teaches in the class. For example: "In all triangles the sum of all three angles are 360 degrees" which is a particular example. Based on this particular example, a teacher can proceed to a general example such as "Sum of all angles in a triangle is 360 degrees". This maxim is useful in developing the reasoning power in the students, and as a result, their learning becomes permanent.
- **Proceed from Empirical to Rational:** A child acquires knowledge through his sense experience. An observation and experience is based on empirical knowledge. On the other hand, rational knowledge implies a bit of abstraction and argumentation. Hence, a teacher while teaching should teach a child to proceed from empirical to rational. For instance, a child is very much aware of the fact of different seasons or occurrence of day and

night. This is a natural phenomenon. A child becomes interested in understanding this experience, and the first question comes to their mind is Why, What, and How? By following this maxim, a teacher will be able to satisfy the curiosity of the child and keep the child actively interested in the topic, which he is teaching.

- **Proceed from Psychological to Logical:** If we consider the system of education in present times, the emphasis is given on the psychology of the child. Logical approach is concerned with the arrangement of the subject matter, and the psychological approach encompasses the child's interests, needs, and reactions. For example, in the teaching of language, the logical order is that first vocabulary and words, and then sentences are to be taught. However, from the point of view of the psychological sequence, this is not appropriate. If the child is first taught vocabulary, then he will not understand anything. The letters will remain abstract to him. When he starts speaking, then he does not say a, b, c, d etc. but speak out a word and then sentence. Hence, if language teaching has to be meaningful, then his learning should begin from knowledge of words. Hence, we can emphasize the fact that psychological sequence should be given more importance in the teaching of a young child in comparison to logical sequence.
- **Proceed from Whole to Parts:** This maxim is based on the Gestalt theory of learning whose main emphasis was to perceive things or objects as a whole and not in the form of parts. For example, if a teacher wants to present before the child the different parts of a flower, then at first, the teacher should show the child the whole flower then he should proceed to explain about its parts. But teaching with the help of this maxim does not mean that complex material be taught first. Rather, we can say that teaching from whole to parts also seems to be motivating and effective.
- **Proceed from Analysis to Synthesis:** This maxim emphasizes that analysis should lead to synthesis. Analysis means breaking

a problem into convenient parts and synthesis means grouping of these separated parts into one complete whole. This maxim is very useful in the teaching of mathematics, science, and similar subjects. For example, the sum of three angles of many triangles may seem to be equal to two right angles and then this fact may be synthesized into a conclusion that the sum of three angles of any triangle is always equal to two right angles.

- **Proceed from Inductive to Deductive:** This maxim includes almost all the maxims stated above. In the Inductive method, after citing many illustrations, a theory or principle is derived. The deductive method is the opposite of the inductive method. In this method, a teacher proceeds from general to particular. An example will help to get a clear explanation of this maxim. "All men are mortal" is a general statement in the deductive type of reasoning. The inductive method will follow that, as Ram is a man, so Ram is mortal, Hari is a man, Hari is mortal, and in this way several such examples can be used which shall help to understand that men are mortal. The teaching of both inductive and deductive method is of equal importance. The lesson should be taught in the initial stages by following inductive method, but it must end with deduction method. A successful lesson is that which involves both these methods. We can also site another example. In language teaching, before giving the definition of noun, the students are acquainted with the example of noun like man, chair, Delhi etc. and then, they are led to general definition of noun. So a good teacher always proceeds from induction and finishes at deduction.
- **From Actual to Representative:** The first hand experience makes learning more vivid and efficient. A teacher while selecting the contents for presentation should make all efforts possible to present it through actual, natural, or real objects than from their improvised representative one's like pictures, models etc. For example, to teach about a historical place, a teacher should try

his best to visit the actual place so that learning will be more vivid, and the pupils will retain it for a long time in spite of teaching through map or picture. Representative forms should be used at higher classes than in lower classes.



CHECK YOUR PROGRESS

Q.4: Explain the term 'maxims of teaching'.

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Q.5: Mention any two benefits of maxims of teaching.

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Q.6: Explain any one important maxim of teaching.

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ACTIVITY 3.2

Assume that you are a teacher. Now, with the help of an example, explain which maxim of teaching you would like to use if you teach a lesson of social studies to your children.

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3.6 LET US SUM UP

- Teaching Technique is a mode of executing a plan for the purpose of facilitating learning on the part of learners. It analyses teaching in terms of goal-directed interrelated teaching behaviour for achieving limited instructional goals.
- Teaching strategies may also be referred to as the structure, system, methods, techniques, procedures, and process used by a teacher while teaching or imparting instruction to the students.
- Selection of strategies for teaching depends on the nature of organization of human activities. We can divide different teaching strategies into two categories– Autocratic Teaching Strategies and Democratic Teaching Strategies.
- Autocratic teaching strategies may be said in general term as teacher-centered methods.
- Democratic Teaching Strategies are child centric by nature. Democratic teaching strategies aim at development of affective domain of the children.
- We can understand the term ***'maxims of teaching'*** as general guidelines for the teacher to make his teaching more effective.
- Some of the benefits of maxims of teaching are– simplifies the process of teaching, makes the teaching learning environment joyful, makes teaching a purposeful one, creates creativity among the students, develops scientific attitude among the students and so on.
- Different maxims of teaching include– proceed from the known to unknown, from simple to complex, indefinite to definite, concrete to abstract, particular to general, empirical to rational, psychological to logical, whole to parts, analysis to synthesis, inductive to deductive.



3.7 FURTHER READING

1) Aggarwal, J. C. (2007). *Essentials of Educational Technology*. Vikas Publishing House Pvt. Ltd.

2) Aggarwal, J. C. (2007). *Principles, Methods and Techniques of Teaching*. Vikas Publishing House Pvt. Ltd.

3) Bhatia & Bhatia. (2007). *The Principles and Methods of Teaching*. New Delhi: Doaba House.

4) Kochhar, S. K. (2010). *Methods and Techniques of Teaching*. Sterling Publishers Pvt. Ltd.



3.8 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Teaching Technique is a mode of executing a plan for the purpose of facilitating learning on the part of learners. It analyses teaching in terms of goal-directed interrelated teaching behaviour for achieving limited instructional goals.

Ans. to Q. No. 2: ***According to B.O. Smith,*** "Teaching strategy refers to a pattern of teaching acts that serves to attain certain outcomes and to guard against others. A teaching strategy is a purposefully conceived and determined plan of action."

Ans. to Q. No. 3: The two points of difference between teaching method and strategy are as follows:

- Method is a term of pedagogy whereas strategy is term which gets its origin to military science.
- The assumption behind teaching strategy is that teaching is science, while the assumption of teaching method is that teaching is an art.

Ans. to Q. No. 4: 'Maxims of teaching' may be understood as general guidelines for teachers to make his teaching more effective. With the help of these maxims, a teacher can bring modifications in their terms of teaching.

Ans. to Q. No. 5: The two benefits of Maxims of Teaching as follows:

- Use of the maxims of teaching simplifies the process of teaching.
- They makes teaching and learning environment very joyful.

Ans. to Q. No. 6: Proceed from the Known to the Unknown: One of the most natural and simple way for a teacher to teach a lesson is to proceed from the known to the unknown. It means that a teacher should proceed to teach a child from the facts which is already known to them then to the facts which is unknown to them. This may help a child to relate the things, which are unfamiliar to them. For doing this, a teacher must have information about the previous knowledge of the child. Use of this maxim can help to arouse interest in the children in their further learning. Besides, this maxim facilitates the learning process and economizes the efforts of the teachers and the taught. For example, if a lesson is on profit and loss of Mathematics, a teacher can relate some instances from the daily life like buying and selling, and profit and loss made by the shopkeepers.



3.9 POSSIBLE QUESTIONS

A) Short Questions (Answer each question in about 150-300 words)

Q.1: Provide the meaning of Teaching Techniques. Highlight the points of its need and importance.

Q.2: Define Teaching Strategies. Highlight the aims of teaching strategies.

Q.3: Discuss the different types of teaching strategies.

Q.4: Write a short note on brainstorming as democratic strategies of teaching.

Q.5: Discuss the benefits of using maxims of teaching in classroom instruction.

B) Long Questions (Answer each question in about 300-500 words)

Q.1: Give a detailed description on the various techniques of teaching.

Q.2: What is the importance of maxims of teaching? Explain the psychological basis of any two maxims of teaching.

Q.3: Discuss in detail the different maxims of teaching.

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UNIT 4 : TEACHING DEVICES

UNIT STRUCTURE

4.1 Learning Objectives

4.2 Introduction

4.3 Meaning of Teaching Device

- 4.3.1 Need of Teaching Devices

4.4 Types of Teaching Devices

- 4.4.1 Illustration and Its Educational Use
- 4.4.2 Questioning and Its Educational Use
- 4.4.3 Narration and Its Educational Use
- 4.4.4 Demonstration and Its Educational Use

4.5 Let Us Sum Up

4.6 Further Reading

4.7 Answers to Check Your Progress

4.8 Possible Questions

4.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- define the meaning and concept of teaching devices;
- explain the need of teaching devices for effective teaching;
- identify the various types of teaching devices; and
- explain the educational implications of the teaching devices.

4.2 INTRODUCTION

In the first three units i.e. Unit 1, 2 and 3, we have already discussed the need and importance of teaching, taxonomy of educational objectives, and maxims of teaching. In this unit, we are going to discuss the use of teaching devices for making the teaching learning process effective and more interactive. We all know that teaching is not a one way process, because, it requires some strategies that will motivate both the teachers and the learners. The use of various devices make teaching learning more

interesting, and provides a thorough understanding to the learners on the teaching topics. In this unit, we are going to discuss the various teaching devices such as Questioning, Illustration, Narration and Demonstration and their educational uses.

4.3 MEANING AND CONCEPT OF TEACHING DEVICE

Teaching devices are used for enhancing the effectiveness of classroom instruction. Good teaching depends on what types of skills and strategies are used for facilitating the desired learning outcome of the learners. In recent times, the concept of teaching has changed, and it is not restricted only to giving information. Now teaching means facilitating learning, stimulating and guiding the learners to achieve their desired goals and so on. For facilitating, guiding and stimulating the learners, there are some tools that can be used in teaching to make the learning enviornment effective.

Teaching is a challenging job as well as a purposeful activity for which a teacher would need some teaching techniques and skills that fulfill the instructional objectives of teaching. Therefore, a teacher should have mastery over some basic skills and mechanisms to discharge his or her duty efficiently and effectively. The skills and techniques are called teaching devices. With the help of these devices, the learners or students may learn with the first-hand experiences i.e. learning by doing. Thus, the teaching devices are provided to display educational problems to a group of students and motivate the learners to solve the problems.

According to N. L. GAGE (1968), Teaching Skills are "specific instructional activities and procedures that a teacher may use in his class-room. These are related to the various stages of teaching or in the continuous flow of the teacher performance." Thus, the efficiency of teaching depends on at what level, the various types of skills and devices are used in the classroom while teaching. In fact, the use of the devices make teaching efficient, and efficient teaching in turn, produces maximum learning outcome.



Inspirational: *encouraging or making you feel you want to do something.*

Pragmatic: *solving problems in a practical and sensible way rather than by having fixed ideas or theories.*

4.3.1 Need of Teaching Devices

Proper and full utilization of teaching strategies and skills make classroom communication ***inspirational*** and ***pragmatic***.

To discharge duty more efficiently and effectively, a teacher must master some basic skills of teaching. The teacher must identify the usefulness of the different skills, and acquire some mastery of each skill. According to Ben Johnson, "Great teachers engineer learning experiences that put students in the drivers seat and then get out of the way."

The use of the teaching devices are relevant to augment the development of the learners. Again, the development of the learners is the most relevant criterion for a teacher's efficiency. The use of teaching devices makes the teaching learning process:

- easier,
- more rewarding,
- more suitable,
- less labour intensive, and
- safer and better teaching-learning environment.

Therefore, to make the teaching-learning enviornment more conducive and effective, there is a need of using teaching techniques, skills and devices in order to achieve the goals set in the instructional objectives. The Baroda General Teaching Competence Scale (BGTC) has divided teaching skills into 3 categories:

a) Pre-instructional skills
b) Presentation Skills
c) Closing, Evaluation & Managerial Skills.

These skills need some devices to be used properly for making the learning enviornment lively. According to John Mander, there are five main reasons to use the teaching devices, these are:

- to teach something more thoroughly so that children may retain the subject matter taught

- to teach something more quickly, and through the use of the devices, the learners may get a better chance of getting through the syllabus
- to arouse interest in the learners
- to motivate the learners properly to learn so that the learning experience of the students becomes permanent
- to help the learners to think critically and also to develop the conceptual thinking of the learners by using various techniques like demonstration, questioning etc.
- to bring with the experiences and understanding of children– something which is new to them
- to help the students to get the first hand learning experience on the topics learnt or being learnt.



CHECK YOUR PROGRESS

Q.1: What is meant by the term teaching device?

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Q.2: Why is teaching devices necessary for effective instruction?

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4.4 TYPES OF TEACHING DEVICES

We have already discussed the importance and need of teaching devices above. Let us now discuss the various types of teaching devices.

John Mander has classified the teaching devices into two categories .i.e. Devices of Limited Application and Devices of General Application.

Devices of Limited Application: This category includes both skills of verbal presentation and mechanical devices. Verbal presentation is suited only to particular facts, whereas the mechanical devices illustrate the single facts or the process. The mechanical devices include much specialised apparatus which provide the opportunity of bright imagery and forceful expression. Counting sticks for teaching elementray number combinations, and words and letter cards, may be used for teaching reading.

Devices of General Application: In this category, the devices like cinema, film strip projectors, epidiascope linguaphone etc. may be used in the teaching of subjects.

The following figure has shown the diagram of teachign devices, which is classified by John Mander:

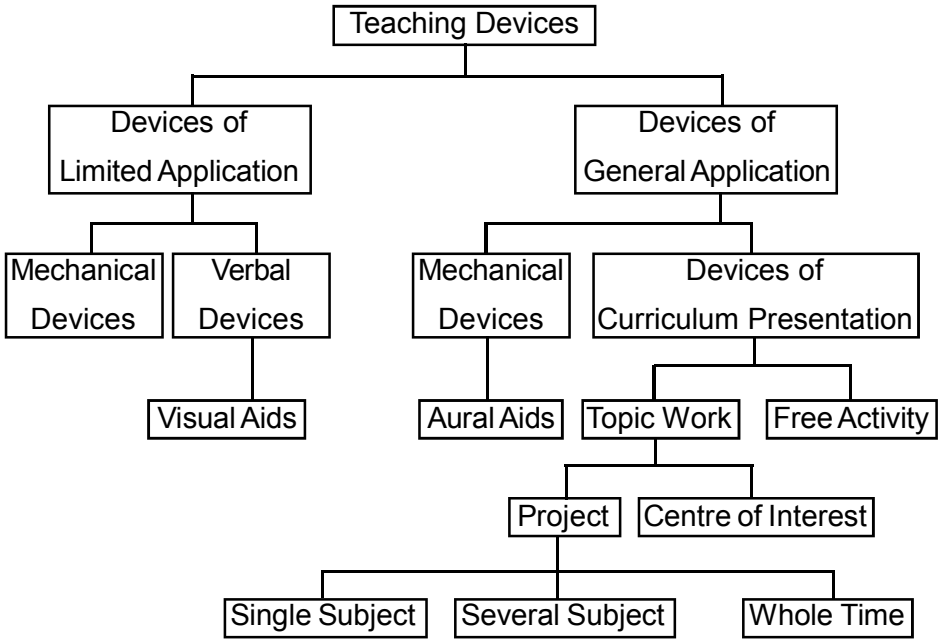


Fig. 1: Mander's Teaching Devices

(Methods and Techniques of Teaching, S. K. Kochhar, Page No: 82)

Charles L.Robbins has classified the teaching devices into two forms– (a) Devices which create interest, and (b) Devices which provide work situations. The devices which create interest include bulletin board, museum, calendar of activities, stories etc. The devices which provide work

situation includes dramas, games, excursions, improvising apparatus, supplementary reading etc.

Devices may also be divided into other two forms such as teaching devices and fixing devices. Teaching devices such as illustrations, questioning, answering etc. help in effective teaching. Fixing devices are meant to fix the material learnt in the mind of the learner. Drill, review, recapitulation etc. are fixing devices. Here, it is important to keep in mind that both the devices are complementary each to other, both are equally important for serving the purposes of educational objectiives. Questioning is such a device.

There are another classification of devices-artifical and natural devices. Oral communication through narration, exposition etc., are artifical devices. School visits, celebration of festivals or other audio-visual aids are natural devices of teaching. Thus, the following diagram has shown the different types and classifications of teaching devices, which helps us to understand the different types of teaching devices and its classifications.

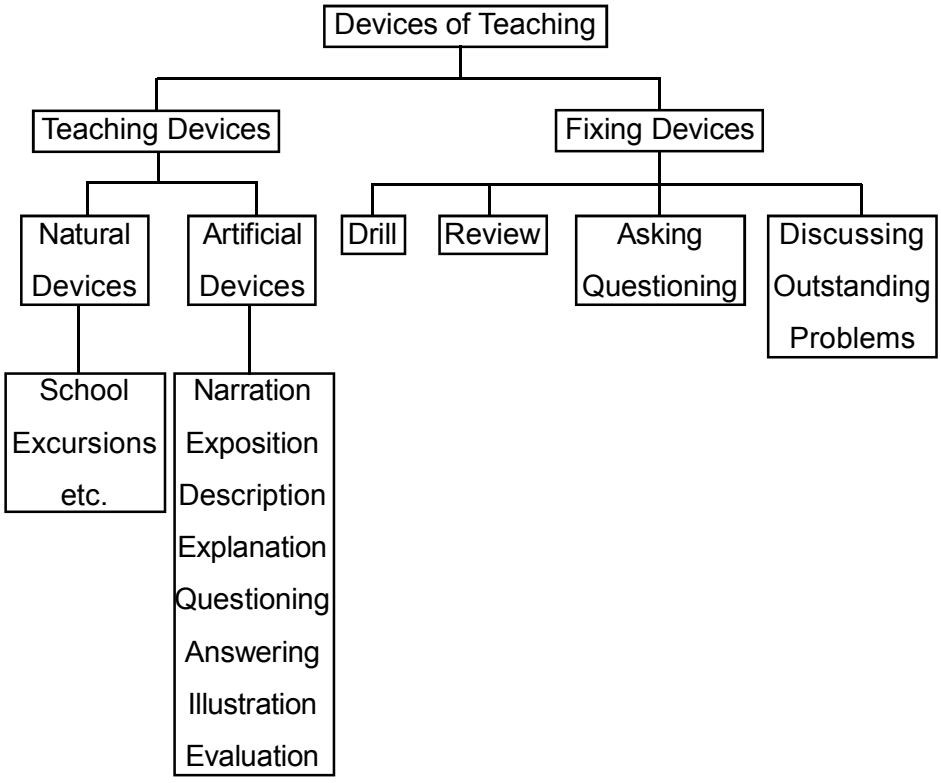


Fig. 2: Devices of Teaching

(Methods and Techniques of Teaching, S. K. Kochhar, Page No: 84)

In this unit, we are going to discuss some of the important teaching devices which are Questioning, Illustration, Narration and Demonstration. Let us discuss the devices one by one.

4.4.1 Illustration and Its Educational Use

Illustration is needed to explain the contents in detail which help in getting clear understanding on the topics of learning. Illustration also helps in explaining the difficult ideas and processes with the help of models, pictures, charts etc. By using these devices, learners get the sense of curiosity, develop imaginative ideas, and conceptual thinking in order to achieve correct knowledge and understanding on the learned topics. Thus, this technique or device helps in simplifying the matter and giving vividness to explanations. According to Hobson, ‘‘No word of mouth or printed page can have the meaning to an individual except, as he has within his experience, the necessary sense perceptions which will serve as a basis for interpreting it.’’ So, explanation helps the student to reap the fruits of the contents, and to check if the contents are wisely selected, timely exhibited, and intelligently and tactfully used for imparting knowledge to the learners during the teaching learning process. Thus, adequate illustrations help to describe or explain logically “HOW”, “WHY” and “WHAT” of an idea, concept, phenomena, event etc.

Types of Illustration: Verbal Illustration *and* ***Non-Verbal Illustration****.*

Verbal Illustration inlcudes the components like analogies, comparisons, similes, word picturers etc.

Non-verbal Illustration includes the following components:

- Concrete materials such as actual objects or specimens, initial statement
- Models of representation of objects
- Pictorial or photographic representation of objects
- Blackboard sketches, diagrams, painting etc.
- Graphs, maps, and charts

- Using explaination links
- Brevity
- Interpreting Pupils' Cues
- Continuity, Fluency & Concluding Statement.

In fact, the use of illustrations depend upon two basic criteria i.e. the nature of the subject which the teacher is going to teach, and the level of the pupil's development. In lower classes, concrete illustartions such as pictures, diagrams, sketches etc. can be used. In higher classes, verbal illustration such as analogies and similes etc. should be used for children with a higher level of intelligence. The proper use of these devices help in providing proper teaching but the overuse or misuse of the same is likely to spoil the lesson or content in hand. To make the lesson or content precise and scientific, the following conditions and procedures should be maintained while using illustrations:

- The content should be simple and comprehensible.
- The units and contents should be accurate and clear.
- Highly finished illustrations are not always the best ones. Illustrations should be simple that can be worked out in presence of the class.
- Too many illustrations should not be used in a single lesson. Only a few, but the best ones should be given while explaining the contents to the learners.
- Illustration should be properly handled and exhibited so that every child is able to see them clearly and easily.
- The relevant illustration should be shown at the proper time during the course of the lesson. The illustrations are to be used before the beginning of the lesson.

4.4.2 Questioning and Its Educational Use

Questioning is a exploratory device. It plays an important role in learning, teaching and testing. The success and efficiency of the teaching learning depends on the skills which guide the teachers

regarding what to teach and how to ask questions to explore the capacity and capability of the learners. According to Raymont, ‘‘the acquisition of a good style of questioning may be laid down as one of the essential ambitions of a young teacher.’’ In fact, questioning is the key to all educative acitivity. By using this device, the minds of the learner and the teacher can be brought together and can compel the learners to have some creative thoughts. The device of questioning helps in establishing cognitive and affective rapport with the learners. However, the following are some of the other purposes:

- to discover what they already know
- to encourage creative thinking
- to assist them to overcome difficulties
- to determine extent of comprehension
- to expose the difficulties
- to develop appreciation and ideas
- to promote thinking, searching out new ideas and view points
- to revise work covered earlier
- to prepare pupil's mind for new materials, to make them aware of what they already know and what their limits are
- to assist the students to be more attentive in the class by using the technique of asking the oral questions
- to create, develop, and maintain a good emotional and intellectual atmosphere in the classroom.

Types of Questioning: To serve the purpose of educational objectives in a classroom or in a learning enviornment, questioning is divided into some classifications, such as:

Open-ended Question and Closed-Ended Question: Closed-ended questions are those questions which can be answered by a simple ‘yes’ or ‘no’. Open-ended questions are those questions which require more thought and more than a simple one-word answer.

Natural Questions and Formal Questions: When the questioner wants to elicit some information, and for that purpose, makes a query-he or she may ask natural questions.

Formal question is that type of question, where the questioner knows about the information asked for. Most of the questions which are asked to the pupils in the classroom are formal types of questions. ***Formal Questions*** are again classified into two groups: Testing questions and Teaching or Developing questions. Preliminary or introductory questions, recapitulations are the forms of testing questions. They build up the attention of the pupils on the topic in hand in the classroom learning enviornment.

Developing or teaching questions are asked by the teacher in course of a lesson that helps the teacher to impart knowledge and elicit the information. Through these questions, the teacher develops a particular line of thought, enables the learners to formulate new generalisations. For the effectiveness of using the device of questioning, some cautions and procedures must be taken care of, which are like the following:

- The questions should be stated clearly, precisely, and definitely.
- The questions should be asked in such a way that encourage the students to develop their thoughts as well as their thinking abilities.
- Allow sufficient time for replies mostly in the context of asking difficult and complex questions to the students.
- Proper discipline must be maintained during the question-answering session. Students should not be allowed to answer without the permission of the teachers, otherwise there may be a possibility of a noisy environment in the classroom.
- Questions should be asked within the range of pupil's experience and knowledge.
- Questions should be relevant to the theme and help to unify learning.
- Learning can be delightful and pleasant, if the art of questioning stimulate the imagination, interest and motivation of the students to know the learning contents.
- Socialised Questions should be asked because they help the pupils a lot in vitalizing socialised learning. It develops the sense of socialisation among the students in the classroom.

- Questions should seldom be repeated. Repetitions promote inattention.
- Questions should not be confined to memory or recall only. There should also be the scope of reasoning that stimulates the thought process of the learners.

4.4.3 Narration and Its Educational Use

Narration is an art of teaching where the teacher plays an important role in motivating the students to learn. The chief form of narration is story-telling. To be a good narrator, a teacher should have a better command over language and speech. The teacher should be able to use appropriate language which clearly depicts situations and happenings.

The story telling method is mostly used to teach the students in the lower classes. The teacher should pay special attention while using the device of narration in teaching, such as:

- The story should be narrated in an orderly manner. Due to the lack of preciseness in contents, teachers may fail to arouse the interest of the students.
- Proper interaction, use of gestures are very important while narrating the story or the content in the classroom. Narration requires the ability of the teachers to speak the story or the content in vivid, natural tone and pleasant manner.
- Narration should meet the requirements of the audience.
- Narration should be made interesting with the use of handy illustrations such as metaphors and similes.
- The teacher must understand the purpose of using narration in the classroom for teaching. The teacher must be interested in the narration to make the learning enviornment enjoyable and interesting. The teacher must see that the narration achieves the purpose.
- In narration, the use of long descriptions should be avoided. Catchy words and phrases can be used to create proper images. When

there is the used of speech or dialogue, it should be given in direct speech.

- Narration can be made more meaningful and interesting if one of the characters takes the role of a narrator.

4.4.4 Demonstration and its Educational Use

Demonstration is a process of describing and explaining the concept, idea or teaching point. It refers to the visual presentation of the action and activities or practical work related to the facts and principles of a delivered lesson by the teacher in the classroom. It uses specimens or experiments. Through demonstration, the subject-matter can be made concrete, precise and logical. This device makes the teaching simple and meaningful, and also helps the learners to link learning with real life. The demonstrator shows how certain things are done. For example, a science teacher can demostrate the properties of a gas oxygen**,** a music teacher can demonstrate how to sing a song etc.

Thus, demonstration requires a good deal of attention of the teacher who must also try to maintain a good rapport with the students as friend and co-worker.

There are some procedures to be followed while using this device in the teaching-learning process.

- Demonstration helps in explaining material objects, ideas as well as abstract subject matter. Therefore, adequate preparation is necessary before giving demonstration. The teacher should make sure that every step is planned and every piece of equipment is ready before hand.
- Demonstrations are visually indispensable in teaching. While performing the demonstrations, make sure that every one can see and hear. Demonstration should be kept as simple as possible.
- An effective demonstration requires the use of many aids such as the chalkboard, a film strip, a film, flannel board, a diagram, a

chart, etc. which are frequently used for making the learning enviornment meaningful and lively.

- Finally, there is the need of evaluation of demonstration on two fronts i.e. have the students benefitted from the demonstration? and have the students succeeded in demonstrating well or not?
- The topic for giving demonstration must be relevant, and it requires creation of appropriate situation.
- The device of demonstration should be used by considering the age and mental level of the students.
- For making the demonstration effective, there is the need of pupil's involvement and generalization.



ACTIVITY 4.1

Which teaching devices, acccording to you, are the most effective devices to be used during classroom transaction at the present times.

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CHECK YOUR PROGRESS

Q.3: Mention some of the techniques of artificial devices and fixing devices.

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Q.4: Identify some of the components of verbal and non-verbal illustration.

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Q.5: Why do you think that questioning is an important device of teaching?

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4.5 LET US SUM UP

- Teaching is not a one way process, it requires some strategies that will motivate both the teachers and learners for teaching and learning.
- The use of various devices makes teaching learning more interesting and provides a thorough understanding to the learners on the topics and the content.
- By using various teaching devices, a teacher can facilitate learning, stimulate and guide the learners to achieve their desired goals.
- A teacher should have mastery over some basic skills and mechanisms to discharge his or her duty efficiently and effectively. The skills and techniques are called - teaching devices.

- With the help of the teaching devices, learners may learn with the firsthand experiences i.e. learning by doing.
- Teaching devices are provided to display educational problems to a group of students and motivate them to solve the problems.
- The use of teaching devices makes the teaching process easier, more rewarding, more suitable, less labour intensive, and safer.
- There are some classifications of the devices such as teaching devices and fixing devices, natural devices and artificial devices.
- Narration, explanation, exposition, demonstration, questioning, illustration are some of the techniques of artificial devices of teaching.



4.6 FURTHER READING

1) Kochhar, S.K. (2013). *Methods and Techniques of Teaching*. Sterling Publishers Private Limited.

2) Mangal, S. K. and Mangal, U. (2010). *Essentials of Educational Technology*. New Delhi: PHI Learning Pvt.Ltd..



4.7 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: The techniques and skills which are used to make the learning environment lively are called teaching devices. A teacher should gain mastery over some basic skills and mechanism to discharge his or her duty effectively and efficiently. Teaching devices are provided to display educational problems to a group of students and motivate them to solve the problems.

Ans. to Q. No. 2: The use of teaching devices is necessary to make teaching process easier, more rewarding, more suitable, less labour intensive and safer. Again, it is important for an effective instruction because of several reasons, such as:

- to teach something more thoroughly so that children may retain the subject matter taught.

- to teach something more quickly
- to arouse interest in the learners.
- to motivate the learners properly to learn sothat the the learning experience becomes permanent.
- to help the learners to think critically and also to develop the conceptual thinking of the learners by using various techniques like demonstration, questioning etc.

Ans. to Q. No. 3: Fixing devices are meant to fix the material learnt in the mind of the learners. Drill, review, recapitulation etc. are the fixing devices.

Oral communication through narration, exposition, descriptions, questioning, answering, illustration etc. are the artificial devices.

Ans. to Q. No. 4: Verbal Illustration inlcudes the components like analogies, comparisons, similes, word picturers etc.

Non-verbal Illustration includes the components like concrete materials, initial statement, models of representation of objects, pictorial or photographic representation of objects, blackboard sketches, diagrams, painting etc.

Ans. to Q. No. 5: The device of questioning is used to establish cognitive and affective rapport with the learners, such a*s:*

- to discover what the learners already know
- to encourage creative thinking
- to assist them to overcome difficulties
- to determine extent of comprehension
- to expose the difficulties
- to prepare the pupil's mind for new materials, to make them aware of what they know and what their limits are
- to assist the students to be more attentive in the class by using the technique of asking the oral question
- to create, develop, and maintain a good emotional and intellectual atmosphere in the classroom.



4.8 POSSIBLE QUESTIONS

A) Short Questions (Answer each question in about 150-300 words)

Q.1: What is meant by the term teaching devices? What are their classifications? Explain.

Q.2: Explain briefly the needs and importance of:

a) Questioning

b) Illustration

c) Demonstration

d) Narration

B) Long Questions (Answer each question in about 300-500 words)

Q.1: What are the needs and importance of using teaching devices in classroom transaction? Discuss.

Q.2: Explain the procedures of using the teaching devices of questioning, illustration, demonstration and narration.

Q.3: Discuss some devices of teaching and their educational implications.

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UNIT 5: TEACHING AIDS

UNIT STRUCTURE

5.1 Learning Objectives

5.2 Introduction

5.3 Meaning of Teaching Aids

5.4 Significance of Teaching Aids

5.5 Types of Teaching Aids

- 5.5.1 Projected and Non-Projected
- 5.5.2 Audio, Visual, and Audio-Visual

5.6 Principles of Using Teaching Aids

5.7 Educational Implications of Teaching Aids

5.8 Problems in Using Teaching Aids

5.9 Let Us Sum Up

5.10 Further Reading

5.11 Answers to Check Your Progress

5.12 Possible Questions

5.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- define teaching aids and explain why teaching aids are important;
- categorize different types of teaching aids;
- describe the principles of selecting and using teaching aids;
- make better use of teaching aids by following the principles of selecting and using them;
- explain the implications of each teaching aid in education; and
- identify the problems in using teaching aids in teaching learning.

5.2 INTRODUCTION

This unit will introduce you to the concept of teaching aids, and help you to discuss their significance in teaching, the different types of teaching aids and their educational implications. While teaching, the teacher requires

the help of different equipments. The process of teaching learning, largely, depends upon the equipments used for teaching. For many years, teachers have been taking help of different things to make their teaching more effective. In most recent times, Science and technology has augmented the process of teaching by making available an array of teaching aids, which hold a significant place in the field of education. By the time you finish reading this unit, you will be able to discuss the meaning of Teaching Aids, the educational Implications of Teaching Aids, the principles of using Teaching Aids, the different types of Teaching Aids, the significance of Teaching Aids, and the problems related to the use of Teaching Aids.

5.3 MEANING OF TEACHING AIDS

Every teacher wants his/her teaching-learning process to be effective. It is expected that whatever a teacher teaches should be listened to carefully, understood clearly, learnt and retained properly for a longer period by the learners. You must have realized the difference between the classroom teaching of your own time and that of the present. It is because, today's age is one of science and technology, and like many other fields, the field of education is also affected by it. One of the outstanding developments in the field of educational technology in recent years is the increasing use of teaching aids. Now, teaching aids have become an integral component in the teaching learning process. They make teaching lively as they influence our sense organs.

The term 'teaching aid' is composed of two words— teaching and aid. Teaching is the act of facilitating learning and aid means help or assistance. A teaching aid is a tool used by the teacher to help in better facilitating the teaching-learning process. It is one of the means by which you can bring life into the theoretical texts. In addition, it is a means of personification of the concrete texts in the books. It is a means to involve the learners physically, mentally, emotionally, and environmentally. A teaching aid can involve the learners physically through the use of his senses and acting, mentally through his use of mind and thinking, emotionally through his excitement, and environmentally by making him aware of his environment. The final purpose remains a means of relating teaching with the students' environment.

5.4 SIGNIFICANCE OF TEACHING AIDS

When you enter the classroom for teaching, there are some concerns such as you want your students to be attentive to you, you want them to learn to the maximum, you want to reach each learner equally, you want to make your teaching interesting for them, and so on. Teaching aids help teachers to take care of all these concerns.

Teaching aids help the teachers to involve more and more sense organs of the learners in the learning process. Teaching aids thus prove to be a great supplement for the teachers when the reinforcement of a skill or concept is necessary.

As we are moving towards a more technological society with many things becoming digital, children are being exposed to technology and digital devices at a younger age. Video games and iPods are now interesting playthings for the learners. Therefore, they might feel bored with the lecture method of teaching, which is quite common even today. Teaching aids improve the quality of education by making it interesting for the learners. In the modern-day education system, teaching aids have become a norm in the classroom. The traditional classrooms had only blackboard and chalk as the teaching aids, but in modern classrooms, you will find white and smart boards, LCD projectors, Computers and laptops, screens, etc. The teachers are expected to focus on the fact that students grow with technology, and therefore, integrating the same into the curriculum and teaching strategy is very important. Therefore, you can see the importance of teaching aids in education. However, if you have to point out the significance of teaching aids, it can be done as follows:

The learners are more motivated to learn in a classroom environment having different equipments rather than in a classroom with only furniture and blackboard. Learners can learn better when they are motivated properly through different teaching aids. Teaching aids motivate the students as they get varied experience through them. The following are some of the experiences gained due to the use of teaching aids.

- **Multi-sensual experience:** Teaching aids are a way to involve more sense organs in the teaching learning process. As many sense

organs are involved, it leads to development of proper image among the learners by giving them an opportunity of seeing, hearing, tasting, touching, and/or smelling.

- **Concrete experience:** Teaching aids provide concrete examples for conceptual thinking. Teaching aids help to make abstract concepts concrete. It is easier for the learners to understand something abstract when it is presented in concrete form.
- **Interest:** Teaching aids arouse the interest of the students. The teacher can use teaching aids to create interest among the learners to learn the contents to be delivered. For example, the learners will be more interested to know about the historical context of Taj Mahal if a documentary film is used in the classroom to showcase the history, instead of just telling them about it.
- **Better Understanding and Clarification:** Teaching aids can facilitate proper understanding of the students and discourage the act of cramming. Through teaching aids, the teacher can clarify the subject matter more easily. For example, in a science class, the use of models to explain the structure of atoms and molecules will help the learners to understand the concept better.
- **Economy:** A lot of energy and time is saved for both the teachers and the learners as complex concepts and phenomena are easily and quickly clarified, understood and assimilated through the use of teaching aids.
- **Lively and Active:** Teaching aids make the classroom lively and active. Use of teaching aids makes the learning experience lively for the learners and gives them opportunity for remaining active in the class. It removes passivity on the part of the learners, and helps to avoid monotony during the teaching learning process.
- **Direct Experience:** Teaching aids provide direct experience to the learners. The learners get real life experience of many concepts. For example, using the microscope to make the learners understand about its working will provide them a real experience of how does a microscope works.

- **Freedom:** When aids are used in the teaching learning process, the learners get a lot of scope to move around, interact with each other, and with the teacher. It provides the learners the freedom to learn various things from different dimensions.
- **Attracting Attention:** Attention is very important in the process of teaching-learning. Teaching aids help the teacher in creating an appropriate environment for attracting and sustaining the attention of the learners in the learning process.
- **Retention:** Being human, we forget many things. However, we expect the learners to remember what is taught to them at least to a certain extent. Proper use of teaching aids helps to retain the concepts more permanently. They help in the retention as multiple senses are involved in the teaching learning process.
- **Meeting Individual Difference:** In any classroom, a teacher has to deal with diverse students in terms of learning style, background knowledge, intelligence, etc. Some learners like to learn by reading, while others like to learn by listening and some others through practical experience. Using a variety of teaching aids helps the teacher to meet the individual differences among the learners.



CHECK YOUR PROGRESS

Q.1: What is a teaching aid? Give examples.

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Q.2: How does teaching aids help in retention of learning?

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5.5 TYPES OF TEACHING AIDS

There is a range of teaching aids used in the classroom. These aids can be categorized differently. On the basis of the sense organs addressed,

teaching aids can be divided into audio, video, and audio-visual aids. On the basis of how the aid is used, teaching aids are divided into projected and non-projected aids. Apart from these, some activities are also considered teaching aids. They are called activity aids. In Figure 5.1 and 5.2, the categorization has been depicted in flow charts and in the following sections; the teaching aids have been discussed in detail.

5.5.1 Audio, Visual and Audio-Visual Teaching Aids

There are many aids available these days. We may classify these aids as the following:

- **Visual Aids:** The aids, which use the sense of vision, are called Visual aids. For example, actual objects, models, pictures, charts, maps, flash cards, flannel board, bulletin board, chalkboard, overhead projector, slides etc. Out of these, black board and chalk are the commonest ones.
- **Audio Aids:** The aids that involve the sense of hearing are called Audio aids. For example, radio, tape recorder, gramophone are such type of aids.
- **Audio-Visual Aids:** The aids, which involve the sense of vision as well as hearing, are called Audio-Visual aids. For example, television, film projector, filmstrips are the most common audio-visual aids.

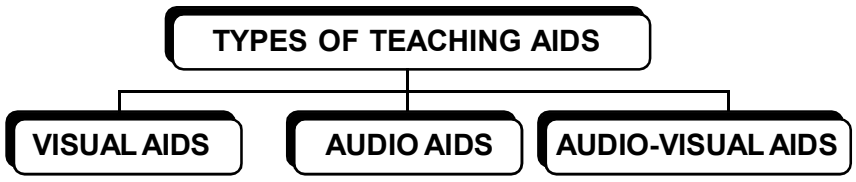


Fig. 5.1: Categorization of Teaching Aids on the basis of Sense Organs addressed

5.5.2 Projected and Non-Projected Teaching Aids

The teaching aids may also be categorized as projected, non-projected, and activity aids.

- **Projected Aids:** The aids project pictures upon a screen by using a certain type of machine. Examples are opaque projectors, slides, filmstrips, overhead projectors, LCD panels, etc.
- **Non-Projected Aids:** The visual and audio-visual aids, which are shown directly to the learners, are known as non-projected aids. Such aids include charts, diagrams, posters, flash cards, maps, cartoons, display boards, models, puppets, etc.
- **Activity Aids:** The use of activity aids involve the learners in some kind of activity. For example, exhibition, field trip or excursion, teaching machine, programmed learning, etc.

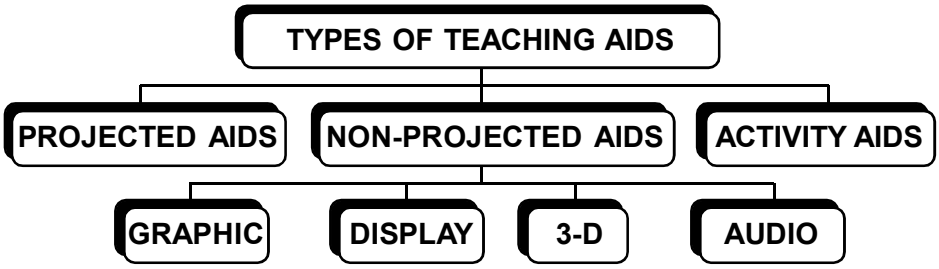


Fig. 5.2: Categorization of Teaching Aids on the basis of usage of Teaching Aids

Now, let us discuss in detail some of the important teaching aids. Some of them are visual and projected, some are visual non-projected, some are audio, some are audio visual and projected, and some are audio visual non-projected.

- **Chart:** A common, effective teaching method is to use visual presentations in a classroom. Chart is a combination of pictorial, graphic, numerical or any other material, which presents a systematically organized visual summary of the concept or topic. Charts are used to present the material symbolically, summarize information, present abstract material in visual form, and to motivate the learners. There are different types of charts—outline charts, flow charts, tabular charts, pictorial charts, organization charts, chain charts, evolution charts, etc. Appropriate type of charts should be used by the teacher to make the learners understand the topic clearly.

- **Model:** A model is a representation of an idea, object, event, system, or process. It is a replica of real objects in appropriate size, complexity, timing, safety and cost factors. It gives the learners a three-dimensional visual representation. It is used to explain clearly the structure or functions of real things. Models are appropriate to use when the original or real object is too large to be brought inside the classroom (for e.g., model of the Indian Parliament) or too small to be observed (for e.g., model of water molecule). Models are used to display something, which is not possible to bring in the original form (for e.g., model of the brain or intestine). Models may be of two types—working and static. Working models are used to display functions and processes while the static models are used to display structure. Models may be prepared by using different materials like paper, cardboard, clay, plaster of paris, wood, thermocol, etc.
- **Display Board:** Display boards are important part of classroom, as they make the room appear more attractive and create a better learning environment. Display boards are boards attached to the wall of the classroom which can be used by the teachers as well as the learners to display various things. They create visual learning opportunities for the learners. The learners enjoy seeing the changing boards that stimulate their curiosity. Setting up and using display boards require supplies such as background paper, poster board, letters, markers, etc.



Fig. 5.3: Display Board

- **Flannel Board:** A flannel board is a display board made of wood, cardboard or straw-board covered with coloured flannel or woollen cloth. Display material like cut-outs, pictures, drawings and light objects backed with rough surfaces like sand paper and strips, flannel strips, etc. will stick to the flannel board temporarily. These materials can be detached easily and replaced with new relevant materials as the lesson progresses. Generally, the dimension of a flannel board is 1.5 × 1.5m. It can be fixed next to the chalk board or can be placed on a stand about one meter above the ground. The display material can be singularly adhered on the flannel board and then removed for replacing it with the next material in a sequence for proper development of a lesson.



Fig. 5.4: Flannel Board

- **Slide Projector:** A slide projector is used to project photographic materials on the wall or screen in front of the learners. The relevant materials are developed on the celluloid slides and displayed with the help of a slide projector. It is based on the principle of direct projection. Slides are flexible visual aids, i.e., the sequence is not fixed. Teachers can arrange them serially according to their needs. Moreover, they can make their own slides. However, slides need a large storage space. To operate the projector, you have to place the projector on a table, connect the power cord to electric supply of proper voltage, adjust the screen in front of the projector, insert slide carrier in its holder, place a test slide in the

right hand side of the carrier, and gently push the frame over to the centre, turn on projector light, focus image on screen by turning the objective lens backward or forward.

There are two types of slide projector– ordinary and improved. The ordinary one consists of a frame containing two slits into which slides are put for focusing. They are manually and continuously replaced by other slides one after another. The improved one consists of a circular disc with more slits where even a hundred or more slides can be projected on the screen.

- **Overhead Projector:** An overhead projector is a device that can project a chart, a diagram, a map, a table or anything written on transparent plates, upon a screen or wall in front of the learners. This makes teaching illuminative, illustrative, and impressive. It saves the teacher's time in the sense that the teacher need not devote time for drawing or writing long sentences. The same transparencies may be used by the teacher again and again. Overhead projector uses the principle of indirect projection. In this, the projected image is obtained behind and over the head of the teacher. Making use of lens of short focal length and two mirrors to reflect the picture on the screen, the overhead projector can be placed in front of the class. Normally, overhead projectors are composed of a projection lamp to act as a source of light, condensing lenses to concentrate all the light into usable beam, a polished mirror and lens assembly, and a blower for cooling the system. It can be used to project different varieties of teaching aids, such as the charts, graphs, drawings, diagrams, maps and worksheets.
- **Maps:** A map is a two-dimensional accurate representation of geographical details of boundaries of continents, countries, mountains, rivers, important locations, etc. in the form of a diagram drawn to scale. While using maps, it is important to make the learners understand properly the key of index, the lines, colours, tints, symbols, directions, etc. Maps may be of different

types– historical maps, political maps, physical maps, statistical maps, dot maps, population maps, weather maps, seismological maps, etc.

- **Globes:** Globes are three dimensional teaching aids. They are used to represent the earth. Globes help the learners to understand various locations on the earth, as well as to understand the unique shape of the Earth. Although globes have been being used as, teaching aids for long-time, interactive globes have become a mainstay in many elementary classrooms. These interactive globes can electronically identify certain regions and provide relational understanding to many locations. Interactive globes incorporate technology to answer questions and provide information. This makes the teaching learning experience livelier.
- **Radio:** Radio is a very effective audio teaching aid. It uses the technology of radio waves to carry information in the form of sound. When radio waves strike an electrical conductor, the oscillating fields induce an alternating current in the conductor. The information in the waves can be extracted and transformed back into its original form. It requires a transmitter and a receiver, along with a microphone at the transmitter and a loudspeaker at the receiver in the case of a voice-communication system.
- **Tape recorder:** Tape-recorder is another commonly used invaluable aid to the learner and teacher. It is an audio aid. These consist of a sequence of sounds which suggest something happening when taken together. The sound is recorded in a cassette through a recorder and is played through a record player.
- **Television:** It is one of the most easily available audio-visual teaching aids. However, it is not being utilized to the optimum. It is a medium in which audiovisual materials are broadcast. It is a machine with a screen. It receives broadcast signals and turns them into audio-visual outcomes. It is particularly useful as a mass medium.

- **LCD Projector:** An LCD projector is based on liquid crystal displays which can display images, data or video very clearly. It works on transmissive technology. The light source for an LCD projector is a standard lamp. The LCD projector allows the source light to pass through the three coloured liquid crystal display light panels. The panels in turn allow some colours to pass through and block some colours to form the images on the screen.
- **Puppets:** Puppets are inexpensive teaching aids. They are movable small scale models of people or animals which are generally manipulated with strings or hand movements. These are generally made of cloths and other easily available materials. Most of the time, the models or dolls are controlled by a string held by hand by playing the fingers. Some puppets are also manipulated by inserting the hand inside the doll and making it move as per requirement.
- **Field Trips/Excursions:** A field trip or an excursion is a visit to a place outside the regular classroom which is designed to achieve certain objectives, which cannot be achieved by using other means. For example, if the lesson is on 'handicraft', a field trip to a village where handicraft is the occupation of the people will give the learners a hands-on experience. The places for field trip can be zoos, other educational institutions, museums, theater, etc. The steps involved in conducting field trip are– trip selection, logistics planning, field trip preparation/pre-trip discussion, conduction of the field trip, sharing of observations and experiences and discussion post field-trip and evaluation by the teacher.
- **Exhibitions:** In education, the term exhibition refers to projects, presentations, or products through which students 'exhibit' what they have learned. It is a way of demonstrating whether and to what degree they have achieved the expected learning standards or learning objectives.



CHECK YOUR PROGRESS

Q.3: Differentiate between a map and a globe.

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Q.4: How are flannel boards used?

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5.6 PRINCIPLES OF USING TEACHING AIDS

- **Principles of Selection:** The teaching aids make the teaching effective only when they are selected on the basis of the objectives, content, grade level, educational value and the relevance.
- **Principle of Preparation:** For preparing the teaching aids, as far as possible, locally available material should be used and the cost of preparing should be kept low. The teachers should prepare the aid by themselves and whenever possible, should associate the learners in the preparation process.
- **Principle of Use:** Before actually using or presenting the teaching aid, the teacher should carefully plan and visualize its use. They should prepare themselves beforehand for the use and manipulation of the aids. Care should be taken that minimum damage is caused to the teaching aid while using it. Proper timing should be maintained— like when to present the aid during the class, what will be the duration of using the aid during the class, etc.

5.7 EDUCATIONAL IMPLICATIONS OF TEACHING AIDS

Teaching aids are an integral part of education. Appropriate use of teaching aids enhances learning to a higher level. Each of the teaching aid

has its own significance and is appropriate to be used in different contexts. The teacher should follow the principles of teaching aids to make their maximum utilization. The educational implications of the teaching aids mentioned above are discussed in the following:

- **Charts:** Charts can help the students process content and to make connections more easily. Teachers may either purchase or make charts to display in the classroom. While using a chart, it should be hanged where all the students can see it, ideally, at the students' eye level or just above eye level. You should use charts that have clear images and large text. You can keep charts that have information required throughout the year on display so the students can refer to them whenever they need to. For example, you can keep a chart about the rules of punctuation or the periodic table on the wall throughout the year. Whenever possible and feasible, you should take help from the learners to prepare the chart, if it is not prepared beforehand. You may also use charts to present mind maps, Venn diagrams, etc.
- **Models:** Models help the learners to get a three dimensional representation of the original thing. So, it becomes easier for them to understand the concepts and topics. The working models give them almost a real experience of the process or functioning of the original object. While using the models in the classroom, the teacher should take care that it can be viewed by each and every learner. If necessary, the teacher should call the learners individually or in small groups to observe the model closely. You should accompany the display of model with appropriate explanation for proper understanding of the learners.
- **Display Boards:** A classroom with detailed and visually pleasing boards create a more cheerful atmosphere. A display board, in itself, can have a direct impact on motivation and thus on learning. Display boards add to the students' learning experience. You may put some stimulating material on display to promote students' interest in a topic that is going to be taught before the teaching begins. They can also supplement to enrich or reinforce what is being taught. They can be

used to communicate to others (students from a different class, other teachers, the principal, official school visitors, parents, and members of the local community) what the class is doing. They may also be used for activities like asking the students to give their view points or innovative ideas about something. They can be used to promote class management. They can include lists of routines, responsibilities, tasks, and rules. They can include directions, labels, and instructions.

- **Flannel Boards:** Flannel board can be used in a variety of ways in a classroom. A resourceful teacher may find numerous applications of this visual aid. Some of the points that you should keep in mind while using flannel board are as follows–
  - Collect pictures, light objects or paper cuts outs.
  - Display the material on the flannel board in a sequence to develop the lesson.
  - Change the pictures or cut-outs as you talk to the students.
  - Use the flannel board to create proper scenes and designs relevant to the lessons.
- **Slide Projectors:** These are the easiest way of bringing real life situation into the classroom. They are colourful and have a dramatic effect. They are less expensive and easier to operate than films. They may be used for a complete lesson or a part of it, accompanied by written notes or tape recorded commentary. They are compact and convenient.
- **Overhead Projectors:** Overhead projectors are used to project large images. They let you to face the class as you write or indicate points of importance on the transparency. Flexible materials can be prepared easily by different methods. They can be used in different ways for writing and presentation of charts, maps, graphs, etc. Transparencies are securable, so the same transparencies can be used again and again.
- **Maps:** Maps are mostly used in subjects like Geography, History, Political Science, Economics, etc. Maps provide a spatial training to

the learners. They help to invite curiosity, encourage exploration and inspire problem solving. They incorporate visual learning, spatial thinking and quantitative skills. They also provide the context and relevance to the topics covered in class as students can more easily visualize complex ideas and situations. Students can also form a much better understanding of the scale involved when maps are used.

- **Globes:** Globes help the learners to develop comprehension and problem solving. Children can also use globes to formulate routes and travel destinations. This helps in constructing self-sufficiency and confidence of the learners. Globes are versatile— they can be used in any grade, and are relevant in various fields of learning. They are used to teach about different countries, including the formation of bodies of water, mountain ranges, natural resources, and the effect that the climate has on different locations. A globe can conceptualize the different locations of the learners. You can underline the importance of diversity by allowing children to point to their place of heritage on the classroom globe, fostering a sense of commonality between students.
- **Radio:** Radio technology has become popular as an educational medium during early 20th century. Radio is capable of delivering high quality educational programmes to highly diversified audiences located across broad geographical expanses – all at a low per unit production cost. When used as a supplementary learning tool, radio benefits weaker students. It is cost-effective and capable of exerting greater learning effects than textbooks. It can be used by the teacher when there is a need to complement the teaching with some extra material. Another benefit for multi-grade classroom use is that radio can provide instruction for one group of students, while the teacher is occupied with another. Radio can also bring new or previously unavailable resources into the classroom, thereby greatly enhancing learning. Although there are various complex technologies, radio has always remained a viable medium that has proven educational worth in terms of both pedagogical importance and geographical reach.

- **Tape Recorders:** Tape recorders can be used for all the listening activities. These can be used as cues for drills. They help to train the learners in listening skills. They can also be used to record discussions or interactions among the learners in the classroom, which can be later used to provide them feedback or to diagnose problems. You may also use them to teach content, accent, pronunciation and intonation, particularly for language classes. The following points should be taken care of while using tape recorder in the classroom–
  1) Taped material chosen for use in class should be of interest to students.
  2) Taped material chosen for classroom use should be as natural as possible.
  3) With published material, very often, the tape adds nothing at all to the printed text, as in the case where passages are read aloud by a single voice.
  4) The tape recorder should be placed in such a position from where all the students can hear.
- **Television:** Television has a tremendous educational potentiality. It can be used to demonstrate various educational programmes. It is more useful if the size of the class is large or the learners are scattered. Therefore it is used as a medium, not only as aid, in distance education. For example, the learners may be given an audio-visual experience of the wildlife in Sahara deserts through a programme in the National Geography Channel. Specially designed programmes for educational purpose may also be broadcasted in television. For example, DD-Gyan Darshan, set up by the national Telecaster Doordarshan and Indira Ghandi National Open University, includes programmes for schools, teacher enrichment education, open and distance learning, vocational courses and courses for disadvantaged sections of India.
- **LCD Projectors:** Now-a-days, LCD projectors have become very common in modern classrooms. Though blackboards have their

own place in a classroom, the use of LCD projector has minimized the use of blackboard to a great extent. They are being used in varied purposes– presenting bulleted points while lecturing, showing images, video clips, GIFs, surfing through Google Earth, etc. They can also be used for interactive school plans to learn foreign languages and even for using webcams to visit partner communities and or other institutions.

- **Exhibitions:** Exhibitions are helpful to encourage students to think critically, solve challenging problems, and develop skills such as oral communication, public speaking, research, teamwork, planning, self-sufficiency, goal setting, or technological and online literacy– i.e., skills that will help prepare them for college, modern careers, and adult life. You may also ask learners to provide a formal reflection through exhibitions on what they have learned and created. Exhibitions also encourage interdisciplinary interest among the learners.
- **Puppets:** Puppets are effective for story-telling and for showing art. They train the learners in imagination. Puppets are amazing as visual aids for singing and dancing, they help children to be inventive and artistic, and they allow for children's visions and inspirations to come to life. Puppets are a good teaching aid when sensitive topics like sexual abuse, gender discrimination, etc. are to be taught to the learners.
- **Field Trips/Excursions:** Field trips give opportunity for students to get out of the classroom and experience something different. They facilitate the learning of abstract concepts. You may give real-world experience to the learners through field trips. They motivate the learners by increasing interest and curiosity. Field trips can add variety to the regular classroom instructional program and they tend to be special and enjoyable learning experiences. They increase student-student and student-teacher social interaction. They help in developing the ability of systematic observation among the learners.

5.8 PROBLEMS IN USING TEACHING AIDS

Though teaching aids serve as assistance in the teaching learning process, you may face various problems while using them. The following are some of the problems, which a teacher might face:

- **Lose Focus:** Teaching aids are used only to aid the teaching learning process. But you may lose focus of the main purpose of using the teaching aids. The students may be more interested in the aid rather than in the topic. Therefore, while using the teaching aids, the teachers should see that the aid is properly used without distracting the learners from the topic.
- **Ineffectiveness of the Aids:** If you do not plan properly the use of teaching aids, or do not prepare properly beforehand, the aid will be a futile. It may rather create confusion among the learners.
- **Improper Selection:** While using the teaching aids, it is very important that the aid is appropriately selected according to the topic to be taught, the grade of the students, their background, and other facilities available. Improper selection of teaching aids may result in the confusion among the learners. Instead of helping them, it will create complications in understanding the content. It may also lead to distraction of the learners.
- **Infrastructural Problems:** Another problem for using teaching aids is the lack of adequate infrastructure. For e.g., to use a LCD projector, you need continuous power supply, but if it is not available, you cannot use it effectively. Another example is– to use the radio as a teaching aid, you need a quiet environment.
- **Financial Problems:** Using teaching aids require some financial assistance. Though you are encouraged to use low cost teaching aids, it is not always possible to keep the cost low. Therefore, sometimes, the lack of finance to prepare or procure teaching aids creates problems.
- **Lack of Training:** Appropriate use of teaching aids require training on the part of the teacher. Though the teacher training programmes

provide theoretical knowledge of the teaching aids, adequate practical training in use of various teaching aids is not provided. This lack of training influences the effectiveness of using teaching aids in the classroom.



CHECK YOUR PROGRESS

Q.5: What are the educational implications of puppets as teaching aid?

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Q.6: How does improper selection of teaching aid affect teaching?

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5.9 LET US SUM UP

- Teaching aids have become an integral component in any classroom.
- A teaching aid is a tool used by the teacher to help in better facilitate the teaching-learning process.
- It is a means to involve learners physically, mentally, emotionally and environmentally.
- Teaching aids help the teacher in motivating, help in retention of learning by involving more sense organs, make the learning experiences concrete for the learners and create interest among the learners thereby resulting in better understanding. They attract the learners towards teaching by making it lively and meeting the need of individual differences.
- Teaching aids may be categorized in two ways– audio, visual and audio-visual aids; projected, non-projected and activity aids.

- Some of the important teaching aids are chart, model, display board, flannel board, slide projector, overhead projector, maps, globes, radio, television, tape recorder.
- Chart, maps, display boards, flannel board, etc. are two dimensional visual teaching aids. Models, globe, etc. are three dimensional visual aids. Radio and tape recorder are audio aids.
- Slide projector, overhead projector, LCD projector are projected teaching aids.
- Each of these teaching aids has implications in the field of education.
- The teaching aids make the teaching learning process interesting, lively and motivating.
- However, the teacher has to follow some principles while selecting and using teaching aids to bring maximum output from them.
- The teacher may also face some problems while using the teaching aids. They include infrastructural problems, financial problems, and lack of training. Using teaching aids without proper planning may make the teachers face various problems.



5.10 FURTHER READING

1) Aggarwal, J. C. (1997). *Essentials of Educational Technology: Teaching Learning*. New Delhi: Vikash Publishing House Pvt. Ltd.
2) Aggarwal, J. C. (2002). *Principles, Methods and Techniques of Teaching*. New Delhi: Vikash Publishers.
3) Kochhar, S. K. (1992). *Methods and Techniques of Teaching*. New Delhi: Sterling Publishers.



5.11 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: A teaching aid is a tool used by the teacher to help in better facilitating the teaching-learning process.

Ans. to Q. No. 2: Proper use of teaching aids helps to retain more concepts permanently through motivation and by creating interest. They also

help in retention as multiple senses are involved in the teaching learning process.

Ans. to Q. No. 3: Maps are two-dimensional aids while globes are three dimensional. While a globe represents the whole earth, maps may be drawn of small areas also.

Ans. to Q. No. 4: Display material like the cut-outs, pictures, drawings and light objects backed with rough surfaces like sand paper and strips, flannel strips, etc. will stick to the flannel board temporarily.

Ans. to Q. No. 5: In the educational field, puppets can be used for story-telling, dancing and singing, and teaching sensitive topics.

Ans. to Q. No. 6: Improper selection of teaching aids may result in confusion among the learners. Instead of helping them, it will create complications in understanding the content. It may also lead to distraction of the learners.



5.12 POSSIBLE QUESTIONS

A) Very Short Question (Answer each question in about 50 words)

Q.1: What are audio-visual aids?

Q.2: Mention the principles of using teaching aids.

B) Short Questions (Answer each question in about 150-300 words)

Q.1: Why are teaching aids significant in the field of education?

Q.2: Cite an example of using model as teaching aid in your classroom.

Q.3: How can field trips be used as teaching aids?

Q.4: What are the advantages of an LCD Projector over Slide Projector?

C) Long Questions (Answer each question in about 300-500 words)

Q.1: Discuss the effect of developments in educational technology on teaching aids.

Q.2: Explain how the use of teaching aids makes teaching more effective.

Q.3: Enlist the problems that you face regarding teaching aids in your school.

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UNIT 6: LESSON PLANNING

UNIT STRUCTURE

6.1 Learning Objectives

6.2 Introduction

6.3 Concept of Lesson Planning

- 6.3.1 Meaning of Lesson Planning
- 6.3.2 Definitions of Lesson Planning
- 6.3.3 Objectives of Lesson Planning

6.4 Essentials of a Good Lesson Unit

6.5 Types of Lesson

6.6 Methods of Teaching in Different Subjects

- 6.6.1 Language Lesson Plan
- 6.6.2 Mathematics Lesson Plan
- 6.6.3 General Science Lesson Plan
- 6.6.4 Social Science Lesson Plan

6.7 Let Us Sum Up

6.8 Further Reading

6.9 Answers to Check Your Progress

6.10 Possible Questions

6.1 LEARNING OBJECTIVES

After going through this unit, you will be able to–

- explain the meaning and definition of Lesson Planning;
- identify the objectives of Lesson Planning;
- describe the essentials of a Good Lesson Plan;
- classify the different types of Lessons; and
- prepare Lesson Plans for various subjects like Language, Mathematics, General Science and Social Science.

6.2 INTRODUCTION

This unit introduces you to some of the basic concepts of lesson planning. This includes the meaning and definition of lesson planning, objectives

of lesson planning, essentials of a good lesson plan, types of lessons and preparation of lesson planning on various subjects like Language, Mathematics, General Science and Social Studies. Before going to discuss lesson planning, we should try to know the meaning and definitions of lesson planning.

Education is a systematic, well organized and a well-planned process to modify the behaviour of the students with a definite aim in view. Education is a process, which involves various activities, which in turn, assist in the total development of personality among both the students as well as the teachers. In an educative process, various aspects and activities are interrelated and interdependent. These may be the methods of teaching, curriculum, learning, teaching devices, lesson planning etc., which are essential part of education, and all these aspects are interrelated and interdependent. Once we determine the aims of education, the curriculum, methods of teaching, teaching devices, lesson planning etc. are developed to achieve the basic goals of education. Lesson Planning is one of the important parts of the teaching-learning process where the teacher prepares the blueprint of teaching before delivering a particular lesson. The teacher should carefully plan and prepare the lesson before the classroom teaching so that he or she can teach the students in a systematic manner for the maximum benefit. Thus, lesson plan is a predetermined blueprint of a lesson or unit delivered before the students for a particular period of time like 30 or 45, 50 or 60 minutes etc. which contains the knowledge and experiences prepared in a systematic form by the teacher through the application of appropriate methods, techniques, strategies, devices etc. It is the skill of a particular teacher, and how he or she prepares the lesson in a proper and organized manner, so that it can motivate the students to know effectively, to think rationally, and to execute the lesson in the classroom in a systematic way.

6.3 CONCEPT OF LESSON PLANNING

Education is a systematic process where teaching and learning are important and essential parts. For effective teaching and learning, lesson planning is the pre-requisite or the prime criteria. The main aim of teaching is to help the child to learn in such a way so that all his or her potentialities

come out of the closet in an effective manner. Good teaching requires careful planning and preparation of lessons so that the teacher can give maximum output in minimum time to his or her students. Teaching and learning assist in attaining the ultimate goals of education. Lesson planning helps the teacher to remain in the right track to attain the goals of education. Preparation of lesson planning differs from institution to institution. However, generally it is prepared for 30 minutes to maximum 1 hour, or to 1 hour 30 minutes. The skill of lesson planning varies from teacher to teacher. Thus, lesson planning is a systematic plan, which is effectively prepared by each teacher for greater benefit of the students. It will be clearer if we go though the meaning, definition, and objectives of lesson planning.

6.3.1 Meaning of Lesson Planning

Theoretical knowledge without proper planning and preparation is not effective for the proper teaching learning situation. Therefore, a proper planning as to how to deliver all the conceptual knowledge to the students with proper teaching methods, devices as well as proper skill, is necessary to make the teaching-learning process in classroom effective and interesting. Lesson planning is a plan of action, which the teacher prepares before the commencement of the class, and where he outlines all the activities and decides what to teach, how to teach, what methods or apparatus are going to be used etc. in a stipulated period of time. Lesson planning means a detail description of a unit or units that the teacher is going to complete within a definite duration. Lesson Planning depends upon the expert skills, intelligence, abilities, and the personality of the teacher. It varies from school to school and college to college.

Lesson Planning is the foundation and key to all good teaching. It is a detailed guide for teaching a lesson. It outlines the teacher's objective and the resultant accomplishment of the students in a systematic manner. Before planning a lesson, the first and foremost need is to identify the learning objectives for that particular class. Then the teacher has to design the appropriate learning activities

and develop strategies to obtain feedback on students' learning. Therefore, in Lesson Planning, a teacher should give due emphasis on aspects like general aims, specific aims, previous knowledge of the students, appropriate strategies of teaching, techniques of teaching, teaching aids, correlation between the new knowledge of the students and other subjects, teacher's activities, evaluation of the knowledge acquired by the students etc.

Thus, Lesson Plan is a plan of the teacher for teaching a particular lesson for a particular class of pupils within a definite period. Lesson plan helps the teacher to organize and systematize the learning process. The activities in the lesson are well knit, interconnected, interdependent which ensure the continuity of the educative process and help to realize the goals of educative process.

6.3.2 Definitions of Lesson Planning

In order to understand the concept of Lesson Planning more comprehensively, we should go through the various definitions provided by the educationists from time to time. Some of the important definitions given by the educationists are mentioned below:

- According to J. K. Davis, "Lesson must be prepared for there is nothing so fatal to a teacher's progress as unpreparedness."
- According to Melissa Kelly, "A Lesson Plan is a framework and a roadmap which each teacher will create using an individual style."
- According to N. L. Bossing, "Lesson Plan is the title given to a statement of the achievement to be realized and the specific meaning by which these are to be attained as a result of the activities engaged during the period."
- According to Binning and Bining, "All lesson planning involves defining the objectives, selecting and arranging the subject matter and determining the method and procedure."
- According to Ryburn, "To teach, we must use experience already gained at starting point of our work."

- According to James Michael Lee, “A lesson plan is an organized statement of general and specific educational goals together with the specific means by which these goals are to be attained by the learners under the guidance of the teacher on a given day.”
- According to Stevenson, “Always plan out your lesson before hand but do not be slave to it.”

Thus, from the above definitions, it is observed that lesson plan is an important and essential aspect of classroom teaching. It guides the teacher in every step of teaching and helps him to remain on the right track so that he can achieve the goals of teaching.

6.3.3 Objectives of Lesson Planning

After going through the meaning and various definitions of lesson planning, it will be better if we outline the main objectives of lesson planning. The main objectives are:

- To link every activity, teaching devices, teaching resources, evaluation and assessment in a systematic manner.
- To help the students to gain maximum knowledge within a stipulated period in an organized way.
- To prepare a good lesson so that a good teaching can be imparted.
- To prevent the deviation from the subject so that the proper systematization is present for an efficient teaching.
- To include all the required good elements so that the teacher can interact with the students in a meaningful way, thereby imparting the real meaning of the lesson.
- To check on unplanned curriculum.
- To observe the needs and aspirations of the students in preparing the lesson so that effective teaching is achieved.



LET US KNOW

- Lesson planning is a systematic plan, which is effectively prepared by each teacher for the greater benefit of the students.
- Lesson planning is a plan of action, which the teacher prepares before the commencement of the class where he outlines all the activities and decides what to teach, how to teach, what methods or apparatus are going to be used etc. in a stipulated period of time.
- The main objectives of Lesson Plan are to link every activity, teaching devices, teaching resources, evaluation and assessment in a systematic manner, and to help the students to gain maximum knowledge within a stipulated period of time in an organized way.

6.4 ESSENTIALS OF A GOOD LESSON UNIT

To make the teaching more effective in the classroom, a lesson plan is the prime key through which the teacher can achieve the real objectives of his teaching. A good lesson plan should incorporate some points, which are very essential in the preparation of a lesson plan. Some of the essential points that should be noted carefully are:

- The lesson plan should be written in a clear and lucid manner so that it can guide the teacher throughout the teaching process.
- Lesson Plan should have clear-cut aims. It should clearly define the General Aims as well as the Specific Aims in unambiguous terms.
- Lesson Plan should be linked with the previous knowledge of the students. The linkage between the new knowledge and previous knowledge should be systematized in a skillful way.
- Lesson Plan should clearly mention the tools and techniques of teaching.
- Lesson Plan should include the proper illustrative aids that are going to be present in the classroom.

- Lesson Plan should contain suitable subject matter in a systematic and organized way.
- Lesson Plan should also provide some hands on activities for the students so that they can learn the knowledge practically.
- Lesson Plan should give emphasis on the individual differences of the students. The plan should be formulated in such a way that all the students can be benefitted.
- Lesson Plan should be flexible. There should be some scope to incorporate new information as and when needed.
- Lesson Plan should include the evaluation procedure with illustrations of various evaluation exercises.

6.5 TYPES OF LESSON

The educational and psychological researches reveal that all lessons are based on the three aspects of consciousness i.e. cognition, connation, and affection. The lesson plan is divided into three types on the basis of the three aspects outlined above.

- **Knowledge Lessons:** Out of the three aspects i.e. cognition, affection and connation, the cognitive aspect of the learner's mental activity is more active or dominant in this type of lessons where the result is the increase in knowledge base of the learners. Alternatively, we can say that these lessons increase the area of knowledge of the learner such as acquiring knowledge in various subjects like history, science, geography, mathematics, language etc. For imparting knowledge in a systematic manner, a set of procedures has to be followed. Certain psychological units of the lesson have to be decided. Therefore, various attempts have been made to evolve the different steps from time to time. According to Herbartians steps, these are preparation, presentation, comparison and abstraction, generalization and application.
- **Appreciation Lessons:** Among the three aspects of consciousness, the affection aspect is more dominant in Appreciation Lessons. It activates the affective part of the learner's mental activity like aesthetic

inspiration to the people. The lessons develop the appreciation of the students who take interest in various fine arts like music and arts. The appreciation lesson aims at developing the aesthetic sense of the learners. It helps the learner to appreciate beauty as expressed through colour, sound, and form. The main objective of this type of lesson is to develop the emotions as against the acquisition of skill or knowledge.

- **Skill Lessons:** In Skill Lessons, connation aspect is more dominant out of the three aspects. Here, the main emphasis is given on the development of psychomotor activities of the learner. Through the skill lessons, the creative talent of the learners is activated through which the student excels in various knowledge like painting, handicrafts, gardening, agriculture, mechanical skills, computer skills etc. Skill lesson helps to develop various skills on the basis of the learner's needs. The psychologists have proved that skill lessons not only use muscles, which are good for the body, but it is also good for the mind. Therefore, skill lessons enable the students to develop physically and mentally and help in the balanced development of personality.



CHECK YOUR PROGRESS

Q.1: What does lesson plan mean?

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Q.2: Give one definition of lesson plan.

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Q.3: Write two objectives of lesson planning.

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Q.4: Mention two characteristics of a good lesson plan.

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Q.5: Mention the three types of Lessons.

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6.6 METHODS OF TEACHING IN DIFFERENT SUBJECTS

A method of teaching means certain modes, procedures or principles that the teacher adopts to teach certain subject or group of subjects in the teaching learning situation. It is the means through which the teacher transmits knowledge and information to his students. A method is a mode or procedure, which links up the teacher and his pupils into an organic relationship with constant mutual interaction. The method of teaching is determined partly on the basis of the subject matter to be taught, and partly by the nature of the learner. Based on characteristics of the learner and the type of learning, the appropriateness and efficiency of the teaching method should be determined. Therefore, it is important to design the method of teaching in such a way that it should give proper importance not only to the subject matter, but also to the way, a student learns. In today's world of science and technology, lot of importance is given on logical reasoning and creativity. Reasoning is one of the most important factors of human advancement. It also enhances creativity. Therefore, method of teaching should give more emphasis on the development of reasoning and creativity on the part of the learner.

The approaches of methods of teaching can be discussed in various ways. It may be teacher centered or learner centered. In teacher centered learning method, the teacher is the highest authority who decides what to teach, how to teach, and what method to use. However, in student or learner centered learning method, the students are the highest authority, in matters relating to how to learn, what to learn, and ways through which to learn.

The methods of teaching can be classified into Inductive approach and Deductive approach. The educationists also classified methods of teaching in seven fold divisions. These are– Inspirational Method, Expository Method, Natural Learning Method, Individualized Method, Encounter Method, Discovery Method, and Group Method.

In other sense, methods are also classified in various divisions. These are Assignment Method, Dalton Plan, Discussion Method, Laboratory Method, Lecture Method, Montessori Method, Observation Method, Questioning Method, Problem Solving Method, Project Method, Review Method, Socialized Classroom Recitation Method, Source Method, Heuristic Method, Demonstration Method, Storytelling Method, Supervised Study Method, and Textbook Method.

All the above-mentioned methods can be used to teach various subjects in various ways. In teaching language subjects, Inductive and Deductive Methods, Discussion Method, Individualized Method, Lecture Methods are mostly used. For teaching Mathematics, scientific methods like observation, discussion, demonstration, Problem Solving, Project, Individualized methods are generally used. For teaching Social Studies, description, discussion, explanation, lecture, project methods etc. are taken into consideration. For teaching Science, some practical based methods are mostly used like laboratory method, demonstration method, lecture method, heuristic method, project method, assignment method, textbook method, observation method, field study method are mostly used. Therefore, the method of teaching is the mode or procedure that the teacher adopts based upon the subject as well as the nature of the learner. Now, we will come across various methods of teaching that are applied to prepare lesson plans for various subjects like Language, Mathematics, Science and Social Science.

6.6.1 Language Lesson Plan

A) Identification of Data

School: Maria's Public School, Guwahati	Subject: Language (English)
Class: VII	Lesson: Compound Sentence
Number of Students: 45	Textbook: GRAMMAR with a smile
Average Age of the Students: 12 + years	Author: Barry O' Brien, Series Editor Sawpon Dowerah
Duration: 45 minutes	Teacher: Sangeeta Baruah
Date: 15.08.2017	

B) General Objectives:

a) To develop in the pupils the interest in English Grammar.

b) To enable the students to acquire knowledge on formation of compound sentence in English language.

c) To help the students to understand the difference between simple sentence and compound sentence.

C) Teaching Aids:

a) General Aids: Blackboard, chalk, duster, pen, textbook, pointer, dictionary etc.

b) Specific Aids:

i) A Chart showing the use of seven coordinating conjunctions.

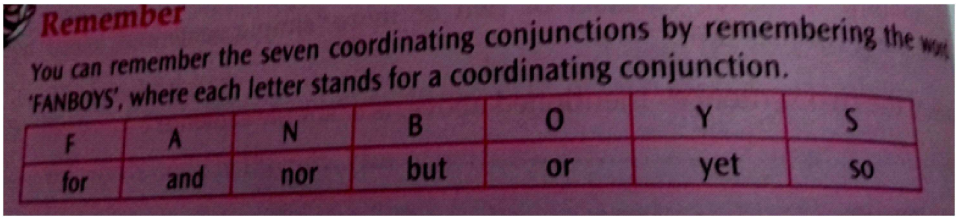


Chart 1: Seven Conjunctions

D) Introduction:

Step	Assumed Previous Knowledge	Teacher's Activities	Pupil's Activities
I N T R O D U C T I O N	Pupils are expected to know about the simple sentences	The teacher will enter the class with a pleasant mind and greet the students with a cheerful smile. She will arrange the classroom in a proper manner. After that, the teacher will ask some questions to test the previous knowledge of the students and to motivate them to learn the new topic in the classroom. ● Can you say a simple sentence related to your day-to-day life? ● What have you eaten in breakfast? ● Can you find any difference between the two sentences? After getting the satisfied answer, the teacher will announce today's lesson, "Dear Students, today we are going to learn about "Compound Sentence." She writes down the topic clearly on the blackboard.	Pupils will also greet the teacher and listen to the teacher attentively. The students will try to answer the questions put forward by the teacher. I love to read books. I have eaten bread and butter in my breakfast. Yes. The learner will open their textbooks and notebooks and will be ready to write down the important contents.

E) Presentation

Step	Teaching Points	Specific Objectives	Teacher's Activities	Pupils' Activities	Expected Learning Outcome
PRESENTATION	Coordinating Conjunctions and Compound Sentences	To enable the students to know about the coordinating conjunctions and their uses in making compound sentences	The teacher will use the lecture cum demonstration method to explain the lesson. She will explain the seven coordinating conjunctions (and, but, or, nor, for, yet, so) and their uses as well as the creation of compound sentences.	Pupil will take note on the explanations.	Understand the concept of uses of coordinating conjunctions and creation of compound sentences

F) Closure

Step	Teacher's Activities	Pupils' Activities
CLOSURE	After giving an oral summary of the day's lesson, the teacher will briefly summarize the lesson and recapitulate the main points systematically. Then the teacher will give the following questions as their home assignments to test the knowledge and understanding about the lesson. ● What do you mean by Coordinating Conjunctions? Discuss. ● What are the differences between Simple and Compound Sentences? After ringing the bell, the teacher will rub the blackboard and leave the classroom conveying thanks to the students and taking with her all the teaching aids.	Students are trying to listen and understand attentively the brief discussion of the points discussed by the teacher. Students will note down the questions for home work given by the teacher. The students will stand up and convey thanks to the teacher.

6.6.2 Mathematics Lesson Plan

A) Identification of Data

School: Maria's Public School, Guwahati	Subject: Mathematics
Class: VII	Lesson: Lines and Angles
Number of Students: 50	Textbook: Mathematics Textbook for Class VII
Average Age of the Students: 12 + years	Author: NCERT
Duration: 45 minutes	Teacher: Anjana Sarma
Date: 19.08.2017	

B) General Objectives:

a) To develop in the pupils the interest to mathematics.

b) To develop the logical thinking and systematic working in the students.

c) To develop in the students the habit of working with speed and accuracy.

d) To inculcate the knowledge on lines and angles.

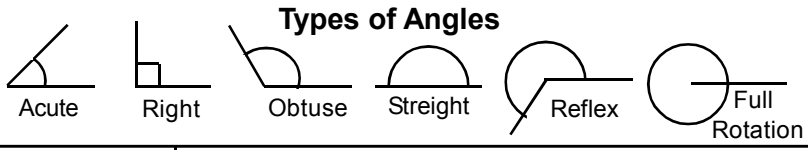
C) Teaching Aids:

a) General Aids: Blackboard, chalk, duster, pen, textbook, pointer etc.

b) Specific Aids:

i) Scale, Compass, pencil, quadrants, eraser, sharpener

ii) A chart showing various angles etc.



Type of Angle	Description
Acute Angle	An angle tht is less than 90^0
Right Angle	An angle that is exactly 90^0
Obtuse Angle	An angle that is greater than 90^0 but less than 180^0
Straight Angle	An angle that is 180^0 exactly
Reflex Angle	An angle that is greater than 180^0
Full Rotation	360^0

Copy the chart above into your notebook.

Chart 2: The Chart Showing Various Angles

D) Introduction:

Step	Assumed Previous Knowledge	Teacher's Activities	Pupil's Activities
I N T R O D U C T I O N	Pupils are expected to know about the basic knowledge on lines and angles.	The teacher will enter the class with a pleasant mind and greet the students with a cheerful smile. She will arrange the classroom in a proper manner. After that, the teacher will ask some questions to test the previous knowledge of the students and to motivate them to learn the new topic in the classroom. ● If we extend the two ends in either direction, what will we get? ● How many lines are present in this figure  ● If lines or line segments meet, what we get? After getting the satisfied answer, the teacher will announce today's lesson, "Dear Students, today we are going to learn about "Lines and Angles" She writes down the topic clearly on the blackboard.	Pupils will also greet the teacher and listen to the teacher attentively. The students will try to answer the questions put forward by the teacher. Line _____ 4 (four) Angle The learner will open their textbooks and notebooks and will be ready to write down the important contents.

E) Presentation

Step	Teaching Points	Specific Objectives	Teacher's Activities	Pupils' Activities	Expected Learning Outcome
PRESENTATION	Lines and related Angles	To enable the pupils to know about the formation of a line with the help of line segments and related angles surface.	The teacher will use the lecture cum demonstration method to explain the lesson. She will explain the line segments and formation of a line like Intersecting Lines, Parallel lines, Transversal lines etc. along with various angles formed through meeting of lines like Compli-mentary Angles, Supplementary Angles, Adjacent Angles along with Linear pair and Vertically Opposite Angles.	Pupil will take note on the explana-tions.	Understand the concept of Lines and related Angles.

F) Closure

Step	Teacher's Activities	Pupils' Activities
C L O S U R E	After giving an oral summary of the day's lesson, the teacher will briefly summarize the lesson and recapitulate the main points systematically. Then the teacher will give the following questions as their home assignments to test the knowledge and understanding about the lesson. ● Can two acute angles form a linear pair? ● Can two adjacent angles be supplementary? ● Give an example for vertically opposite angles in your surroundings. After ringing the bell, the teacher will rub the blackboard and leave the classroom conveying thanks to the students and taking with her all the teaching aids.	Students are trying to listen and understand attentively the brief discussion of the points discussed by the teacher. Students will note down the questions for home work given by the teacher. The students will stand up and convey thanks to the teacher.

6.6.3 General Science Lesson Plan

A) Identification of Data

School: Maria's Public School	Subject: General Science
Class: VII	Lesson: Scarcity of Water
Number of Students: 50	Textbook: Start Up Science
Average Age of the Students: 12 + years	Author: CCE Edition
Duration: 45 minutes	Teacher: Sumanta Borthakur
Date: 23.08.2017	

B) General Objectives:

a) To enable the students to develop observations, skill and scientific interest.

b) To help the students to understand the various forms in which water exist in nature.

c) To know about the scarcity of water and its effect on life.

d) To know about water management.

C) Teaching Aids:

a) General Aids: Blackboard, chalk, duster, pen, textbook, pointer, dictionary etc.

b) Specific Aids:

i) A Picture showing various forms of water existing in nature.

ii) A Picture showing uses of water and sources of water.

iii) A sketch showing the concept of Rain Water Harvesting (RWH).

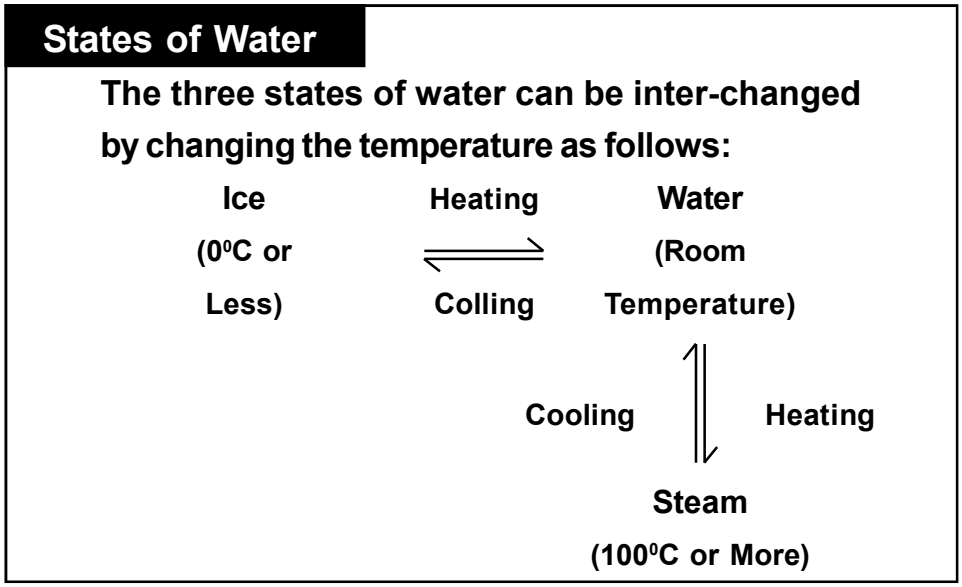
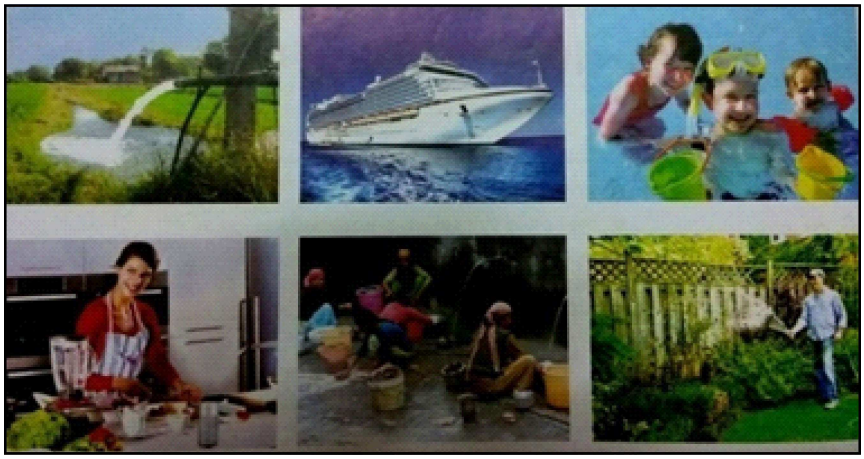


Chart 3: Showing Various forms of Water



Picture 1: Uses of Water

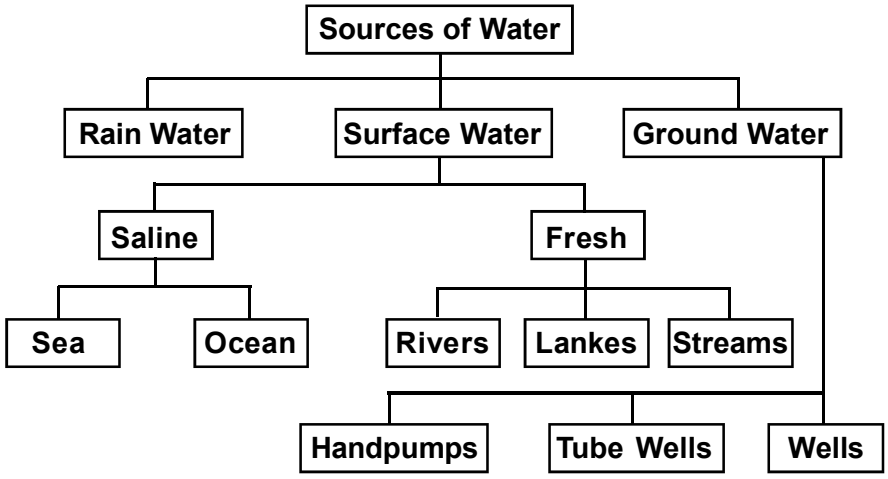
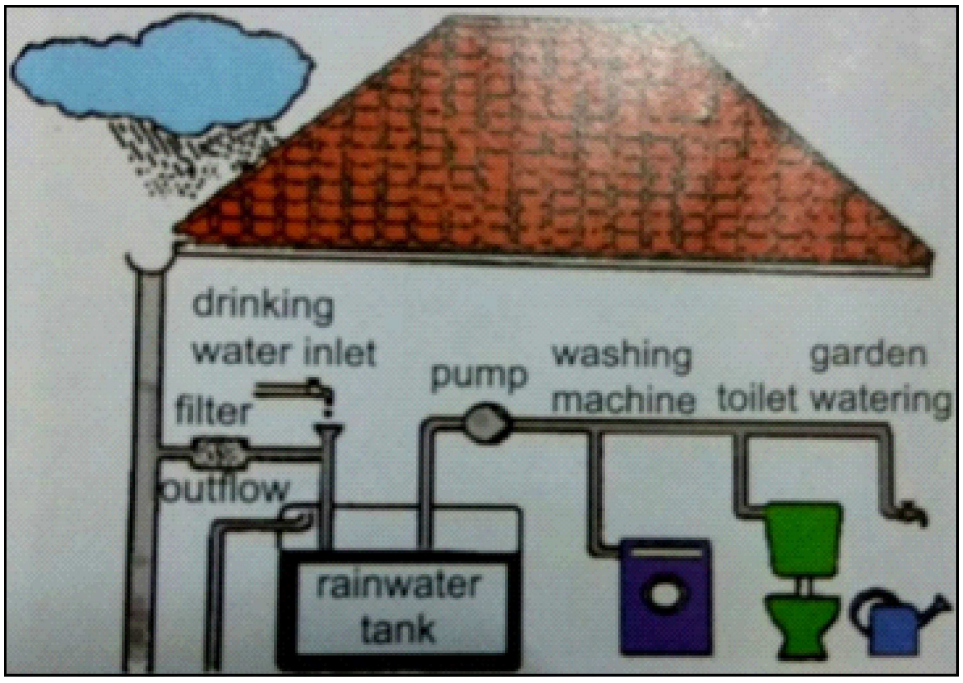


Chart 4: Sources of Water



Picture 2: Rain Water Harvesting

D) Introduction:

Step	Assumed Previous Knowledge	Teacher's Activities	Pupil's Activities
I N T R O D U C T I O N	Pupils are expected to know about the various forms of water exists in nature and the resultant scarcity of water and water manage-ment	The teacher will enter the class with a pleasant mind and greet the students with a cheerful smile. He will arrange the classroom in a proper manner. After that, the teacher will ask some questions to test the previous knowledge of the students and to motivate them to learn the new topic in the classroom. ● Can you tell the name of the most important substances for sustenance of life? ● How many percentage of human body consists of water? ● Can you tell various sources of water? After getting the satisfied answer, the teacher will announce today's lesson, "Scarcity of Water." He writes down the topic clearly on the blackboard.	Pupils will also greet the teacher and listen to the teacher attentively. The students will try to answer the questions put forward by the teacher. Air and Water 70% Rain Water and Surface Water The learner will open their textbooks and notebooks and will be ready to write down the important contents.

E) Presentation

Step	Teaching Points	Specific Objectives	Teacher's Activities	Pupils' Activities	Expected Learning Outcome
PRESENTATION	Various forms of water which exist in nature.	To enable the students to know about the various forms of in nature.	The teacher will use the lecture cum demonstration method to explain the lesson. He will explain the various forms of water present in nature (in solid, liquid and gaseous state) with the help of the chart.	Pupil will take note on the explana-tions.	Understand the concept various forms of water, which exists in nature.
N	The scarcity of water and its effect on life and water management	To enable the pupils to know about the scarcity of water and its impact on life and water management to deal with this crisis.	The teacher will explain the causes and effect of water scarcity with the help of the chart. He will also elaborate on the method of Rain Water Harvesting and its uses. He will ask related questions to the students.	The learners are expected to answer as :	Understand the concept of scarcity of water and water manage-ment.
			● Give two reasons for scarcity of fresh water.	a) Popula-tion increase b) Popula-tion	Under-standing
			● Give two ways by which we can conserve water.	a) Rain Water Harvesting b) Dams and Reservoirs	Under-standing

F) Closure

Step	Teacher's Activities	Pupils' Activities
C L O S U R E	After giving an oral summary of the day's lesson, the teacher will briefly summarize the lesson and recapitulate the main points systematically. Then the teacher will give the following questions as their home assignments to test the knowledge and understanding about the lesson. ● What are the three states of water? Discuss. ● List the major factors responsible for depletion of water table. ● How does ground water get recharged? After ringing the bell, the teacher will rub the blackboard and leave the classroom conveying thanks to the students and taking with her all the teaching aids.	Students are trying to listen and understand attentively the brief discussion of the points discussed by the teacher. Students will note down the questions for home work given by the teacher. The students will stand up and convey thanks to the teacher.

6.6.4 Social Science Lesson Plan

A) Identification of Data

School: Geetanagar High School	Subject: Social Science
Class: VII	Lesson: Earth's surface and its changes
Number of Students: 50	Textbook: Social Science (Part I)
Average Age of the Students: 12 + years	Author: SCERT
Duration: 45 minutes	Teacher: Kalpana Sarma
Date: 05.08.2017	

B) General Objectives:

a) To enable the students to acquire knowledge about the society as well as the subject.

b) To help the students to understand the man-environment relationship.

c) To develop social awareness amongst the pupils.

d) To foster national feelings.

e) To develop a sense of brotherhood, tolerance, unity, belongingness in the minds of the students.

f) To impart knowledge about the atmosphere and earth's surface.

C) Teaching Aids:

a) General Aids: Blackboard, chalk, duster, pen, textbook, pointer, dictionary etc.

b) Specific Aids:

i) A Chart showing the percentage of gases in the air.

ii) A Chart showing the different layers of atmosphere.

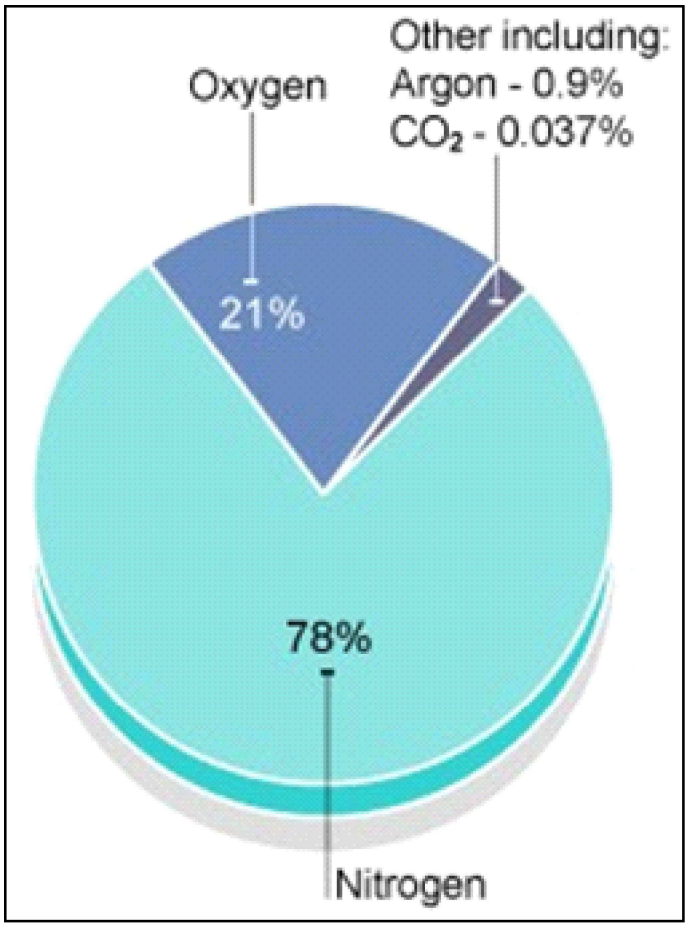


Chart 5: Percentage of gases in the air

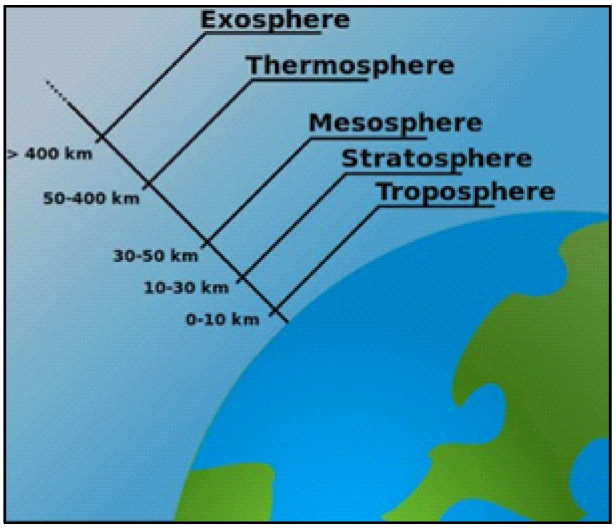


Chart 6: Different layers of Atmosphere

D) Introduction:

Step	Assumed Previous Knowledge	Teacher's Activities	Pupil's Activities
INTRODUCTION	Pupils are expected to know about the earth and air.	The teacher will enter the class with a pleasant mind and greet the students with a cheerful smile. She will arrange the classroom in a proper manner. After that, the teacher will ask some questions to test the previous knowledge of the students and to motivate them to learn the new topic in the classroom. ● Name the planet in which we live. ● Do you feel air? ● What gas we take in during breathing? After getting the satisfied answer, the teacher will announce today's lesson, "Dear Students, today we are going to learn about "Earth's Surface and its changes." She writes down the topic clearly on the blackboard.	Pupils will also greet the teacher and listen to the teacher attentively. The students will try to answer the questions put forward by the teacher. Earth Yes Oxygen The learner will open their textbooks and notebooks and will be ready to write down the important contents.

E) Presentation

Step	Teaching Points	Specific Objectives	Teacher's Activities	Pupils' Activities	Expected Learning Outcome
PRESENTATION	Earth's Surface– Different features of earth's surface.	To enable the students to know about the Earth's surface and its various features.	The teacher will use the lecture cum demonstration method to explain the lesson. She will explain the surface of the earth as well as the changes with the help of the picture showing different layers of atmosphere.	Pupil will take note on the explanations.	Understand the concept of earth's surface and its different features as well as changes in earth's surface.
	Changes in Earth's surface.	To enable the students to grasp the knowledge on changes in Earth's surface.			
	Percentage of gases in the atmosphere.	To enable the pupils to know about the percentage of various gases present in the atmosphere.	The teacher will explain the percentage of various gases with the help of the chart. She will ask related questions to the students. ● What is the source of temperature of air? ● What is called the above part of thermosphere? ● Which is the most abundant gas in the atmosphere?	The learners are expected to answer as: Sun Ionosphere Nitrogen	Understand the concept of various gases present in the earth's atmosphere. Under-standing Under-standing Under-standing

F) Closure:

Step	Teacher's Activities	Pupils' Activities
C L O S U R E	After giving an oral summary of the day's lesson, the teacher will briefly summarize the lesson and recapitulate the main points systematically. Then the teacher will give the following questions as their home assignments to test the knowledge and understanding about the lesson. ● What are the layers of our atmosphere? Discuss. ● Why temperature of air is low in Polar Regions? After ringing the bell, the teacher will rub the blackboard and leave the classroom conveying thanks to the students and taking with her all the teaching aids.	Students are trying to listen and understand attentively the brief discussion of the points discussed by the teacher. Students will note down the questions for home work given by the teacher. The students will stand up and convey thanks to the teacher.



6.7 LET US SUM UP

- Education is a systematic, well organized and a well-planned process to modify the behaviour of the students with a definite aim in view.
- Education is a process, which involves various activities, which in turn, assists in the total development of personality among both the students as well as the teachers.
- Lesson Planning is one of the important parts of the teaching-learning process where the teacher prepares the blueprint of teaching before delivering a particular lesson. The teacher should carefully plan and prepare the lesson before the classroom teaching so that he or she can teach the students in a systematic manner for maximum benefit.

- Teaching and learning assist in attaining the ultimate goals of education. Lesson planning helps the teacher to remain in the right track to attain the goals of education. Lesson Planning depends upon the expert skills, intelligence, abilities, and the personality of the teacher. It varies from school to school and college to college. Lesson Planning is the foundation and key for all good teaching. It is a detailed guide for teaching a lesson. It outlines the teacher's objective and the resultant accomplishment of the students in a systematic manner.
- The main objectives of lesson planning are to link every activity, teaching devices, teaching resources, evaluation and assessment in a systematic manner as well as to help the students to gain maximum knowledge within a stipulated period in an organized way.
- Some of the essential points of a good lesson plan are that it should be written in a clear and lucid manner so that it can guide the teacher throughout the teaching process. Besides, it should have clear-cut aims with clear definition of General aims as well as the Specific aims in unambiguous terms.
- Lessons are divided into three types on the basis of cognition, affection, and connation aspects of consciousness. They are Knowledge lesson, Appreciation Lesson and Skill Lesson.
- A method of teaching is a set of certain modes, procedures or principles that the teacher adopts to teach certain subjects or group of subjects in teaching learning situations. It is the means through which the teacher transmits knowledge and information to his students.
- A method is a mode or procedure, which links up the teacher and his pupils into an organic relationship with constant mutual interaction.
- The method of teaching is determined partly by the subject matter to be taught and partly by the nature of the learner. For preparation of a lesson plan on various subjects, different types of methods are employed for the maximum benefit of the students.



6.8 FURTHER READING

1) Aggarwal, J. C. (2006). *Principles, Methods & Techniques of Teaching*. New Delhi: Vikas Publishing House Pvt. Ltd.
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6.9 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Lesson planning is a plan of action, which the teacher prepares before the commencement of the class, and where he outlines all the activities and decides what to teach, how to teach, what methods or apparatus are going to be used etc. in a stipulated period of time.

Ans. to Q. No. 2: According to Melissa Kelly, "A Lesson Plan is a framework and a roadmap which each teacher will create using an individual style."

Ans. to Q. No. 3: Two Objectives of Lesson plan are:

1) Prepare a good lesson so that a good teaching can be imparted.
2) Prevent the deviation from the subject so that the proper systematization is present for an efficient teaching.

Ans. to Q. No. 4: Two characteristics of a good lesson plan are:

1) The lesson plan should be written in a clear and lucid manner so that it can guide the teacher throughout the teaching process.

2) Lesson Plan should have clear-cut aims. It should clearly define the General Aims as well as the Specific Aims in unambiguous terms.

Ans. to Q. No. 5: Three types of lessons are Knowledge Lesson, Appreciation Lesson, and Skill Lesson.



6.10 POSSIBLE QUESTIONS

A) Short Questions (Answer each question in about 150-300 words)

Q.1: Briefly explain the meaning of lesson planning.

Q.2: Do you think a lesson plan is important for teaching-learning process?

Q.3: Differentiate between Knowledge Lesson and Skill Lesson.

Q.4: In which lesson, fine arts like music and arts are included and why?

B) Long Questions (Answer each question in about 300-500 words)

Q.1: What do you mean by Method of Teaching? Discuss in detail.

Q.2: What are the important points to be remembered in preparing a Lesson Plan? Discuss.

Q.3: Prepare a good lesson plan on a Social Science Subject.

Q.4: Discuss the essentials of a good lesson plan.

*** ***** ***



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