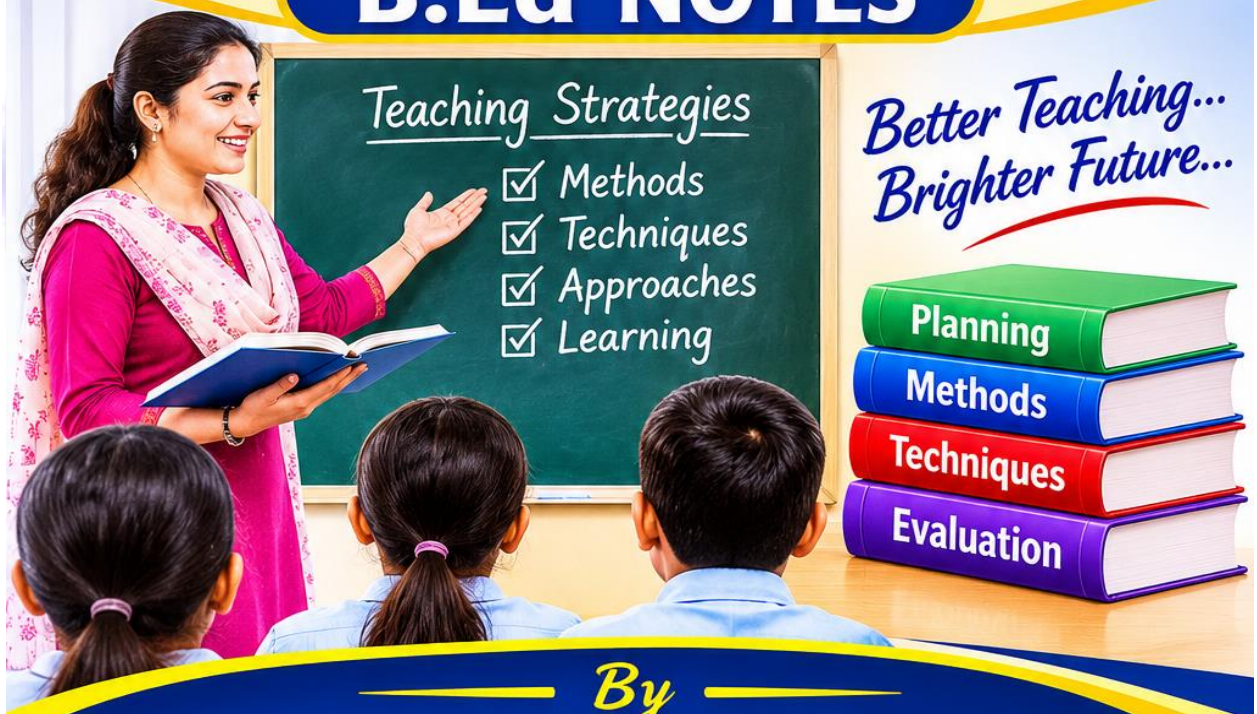
LALA JAGAT NARYAN EDUCATION COLLEGE
JALALABAD (W)

TECHNIQUES OF TEACHING

B.Ed NOTES



By

LALA JAGAT NARYAN EDUCATION COLLEGE

JALALABAD WEST

Course Content: UNIT-

I: Teaching as a Profession

a) **Teaching: Concept, nature, characteristic, principles and maxims. Teaching as a Profession, professional ethics of teachers and Teacher accountability. Reflective teaching: concept and strategies for making teachers reflective practitioners.**

UNIT –II:

Teaching Technology

a Simulated Teaching: Concept, Procedure, Merits and Limitations Micro Teaching: Concept, Procedure, Merits and Limitations, Skills of Micro Teaching (Introduction, Questioning, Explanation, Reinforcement, Stimulus Variation).

B.Ed. Notes – Teaching as a Profession & Teaching Technology

Detailed Explanation | English Medium | Examples | Mind Maps

These notes cover Unit I and Unit II in simple, detailed English. Each topic includes its meaning, characteristics, importance, examples and mind maps to help with B.Ed. examination preparation.

UNIT – I: TEACHING AS A PROFESSION

(A) Teaching: Concept, Nature, Characteristics, Principles and Maxims

1. Meaning and Concept of Teaching

Teaching is a systematic process in which a teacher helps students acquire knowledge, develop skills, form good attitudes and build desirable values.

Teaching is not merely giving information to students. It is an interactive process in which teachers and learners participate actively.

Definitions:

- **Teaching is a process of facilitating learning.**
- **Teaching is an activity that brings desirable changes in the knowledge, behaviour, attitudes and skills of learners.**
- **Teaching is a planned and purposeful activity between teacher and students.**

Example:

When a teacher teaches the topic of plants, the teacher explains the parts of a plant, shows real plants or pictures, asks questions and gives activities. Students observe, understand and learn through participation.

2. Nature of Teaching

The nature of teaching explains the basic characteristics and actual form of the teaching process.

1. **Teaching is a social process: It involves interaction between teachers, students and society.**
2. **Teaching is a purposeful activity: It is performed to achieve specific educational objectives.**
3. **Teaching is a continuous process: Learning and teaching continue throughout life.**
4. **Teaching is interactive: It involves communication and discussion between teachers and learners.**

5. **Teaching is both an art and a science: It requires creativity as well as systematic knowledge and methods.**
6. **Teaching is learner-centred: It considers the interests, abilities and needs of students.**
7. **Teaching is dynamic: Teaching methods change according to time, technology and educational needs.**
8. **Teaching is diagnostic and remedial: Teachers identify learning difficulties and provide suitable support.**
9. **Teaching is developmental: It promotes intellectual, emotional, social and physical development.**
10. **Teaching is evaluative: Teachers assess students' progress through tests, activities and observations.**

3. Characteristics of Teaching

Characteristic	Explanation
Goal-oriented	Teaching has definite objectives.
Planned	It requires proper lesson planning.
Interactive	Teacher and students communicate.
Professional	It requires special knowledge and training.
Flexible	Methods can be changed according to learners.
Continuous	It takes place throughout the educational process.
Cooperative	It involves active participation.
Evaluative	Students' progress is assessed.
Creative	Teachers use innovative methods.
Developmental	It develops different abilities of learners.

Example: A mathematics teacher uses blackboard explanations, models, group activities and worksheets to teach fractions. This shows that teaching is planned, interactive, creative and goal-oriented.

4. Principles of Teaching

Principles of teaching are the basic guidelines that help teachers make the teaching-learning process effective.

1. Principle of Motivation: Students should be encouraged to learn through praise, activities and interesting examples.

2. Principle of Activity: Students learn better when they actively participate in classroom activities.

3. Principle of Individual Differences: Every student has different abilities, interests, learning speeds and needs.

4. Principle of Interest: Teaching should be connected with the interests of students.

5. Principle of Practice: Regular practice helps students develop knowledge and skills.

6. Principle of Correlation: New knowledge should be connected with previously acquired knowledge and daily life.

7. Principle of Reinforcement: Correct responses should be encouraged through appreciation and positive feedback.

8. Principle of Learning by Doing: Students understand concepts better through practical experiences.

9. Principle of Feedback: Teachers should provide timely feedback to improve learning.

10. Principle of Evaluation: Learning outcomes should be regularly evaluated.

Example: While teaching measurement, a teacher asks students to measure the length of their classroom using a measuring tape. This follows the principles of activity and learning by doing.

5. Maxims of Teaching

Maxims of teaching are practical guidelines that help teachers present subject matter in an easy and understandable manner.

Important Maxims of Teaching

1. From Known to Unknown

Begin with what students already know and gradually introduce new knowledge.

Example: **Teach multiplication using repeated addition.**

2. From Simple to Complex

Start with easy concepts and gradually move towards difficult concepts.

Example: **Teach simple sentences before compound sentences.**

3. From Concrete to Abstract

Start with real objects and move towards ideas and concepts.

Example: **Use real fruits to explain numbers before teaching abstract numerical operations.**

4. From Particular to General

Give specific examples and then explain the general rule.

Example: **Show several examples of nouns and then explain the definition of a noun.**

5. From Whole to Part

First introduce the complete topic and then explain its individual parts.

Example: **Show the complete human body and then explain its organs.**

6. From Analysis to Synthesis

Divide a topic into parts, understand them and then combine them to understand the whole.

Example: **Explain the different parts of a sentence and then construct complete sentences.**

7. From Psychological to Logical

Teach according to the interests and mental level of students before following the logical arrangement of the subject.

Example: **Introduce environmental pollution through a familiar local example before explaining its scientific classification.**

8. From Indefinite to Definite

Begin with general understanding and gradually develop clear and precise knowledge.

Example: **Discuss different kinds of shapes before defining a triangle precisely.**

9. From Empirical to Rational

Begin with observation and experience and move towards logical explanation.

Example: **Students observe that ice melts and then learn the scientific explanation of melting.**

10. From Near to Far

Begin with the learner's immediate surroundings and gradually move to distant places.

Example: **Teach about the village or town first, then the state, country and world.**

(B) Teaching as a Profession, Professional Ethics of Teachers and Teacher Accountability

1. Meaning of Teaching as a Profession

A profession is an occupation that requires specialized knowledge, formal education, professional training, practical skills and ethical standards.

Teaching is considered a profession because teachers need subject knowledge, pedagogical knowledge, training, classroom management skills and professional responsibility.

Example: A person who wants to become a trained schoolteacher generally needs the required educational qualifications and professional teacher training such as B.Ed. or D.El.Ed., according to the applicable recruitment rules.

2. Characteristics of Teaching as a Profession

1. **Specialized Knowledge: Teachers must have deep knowledge of their subjects.**
2. **Professional Training: Teachers need professional preparation and training.**
3. **Professional Skills: Teachers require communication, teaching and classroom management skills.**
4. **Code of Ethics: Teachers must follow professional moral standards.**
5. **Social Responsibility: Teachers contribute to the development of society.**

6. **Continuous Development: Teachers should regularly update their knowledge.**
7. **Professional Autonomy: Teachers use professional judgement in selecting suitable teaching methods.**
8. **Service Orientation: Teaching focuses on the educational development of students.**
9. **Accountability: Teachers are responsible for their professional performance.**
10. **Respect and Recognition: Teachers play an important role in nation-building.**

3. Professional Ethics of Teachers

Professional ethics refers to the moral principles, values and standards that guide teachers in their professional behaviour and responsibilities.

Important Professional Ethics

Ethics	Explanation
Honesty	Teachers should be truthful in their work.
Punctuality	Teachers should attend classes on time.
Equality	All students should receive equal treatment.
Respect	Teachers should respect students and colleagues.
Responsibility	Teachers should fulfil their duties sincerely.
Confidentiality	Students' personal information should be protected.
Fairness	Assessment should be unbiased.
Discipline	Teachers should maintain professional discipline.
Dedication	Teachers should work with commitment.
Continuous learning	Teachers should improve their knowledge and skills.

Examples of Professional Ethics:

- **A teacher should not discriminate between rich and poor students.**
- **A teacher should evaluate answer sheets honestly.**
- **A teacher should not insult students for giving incorrect answers.**
- **A teacher should maintain confidentiality about students' personal difficulties.**
- **A teacher should use respectful language in the classroom.**

4. Teacher Accountability

Teacher accountability means the responsibility of teachers to explain and take responsibility for their professional actions, teaching performance and students' learning opportunities.

A teacher is accountable to students, parents, school management, educational authorities and society.

Types of Teacher Accountability

1. **Academic Accountability: Completing the syllabus and helping students achieve learning objectives.**
2. **Professional Accountability: Following professional rules and standards.**
3. **Administrative Accountability: Maintaining attendance, records and school duties.**
4. **Moral Accountability: Treating every student fairly and respectfully.**
5. **Social Accountability: Contributing positively to the community.**
6. **Assessment Accountability: Conducting fair and transparent evaluation.**

Example: If students are facing difficulty in understanding mathematics, the teacher should identify the problem, use alternative teaching methods and provide additional learning support.

Difference Between Professional Ethics and Teacher Accountability

Professional Ethics	Teacher Accountability
Deals with moral values.	Deals with responsibility for actions and performance.
Guides professional behaviour.	Ensures duties are fulfilled.
Focuses on right and wrong.	Focuses on responsibility and results.
Example: Treating students equally.	Example: Completing the syllabus on time.

(C) Reflective Teaching: Concept and Strategies for Making Teachers Reflective Practitioners

1. Meaning of Reflective Teaching

Reflective teaching is a process in which teachers carefully examine, analyse and evaluate their own teaching experiences to improve their teaching methods and students' learning.

A reflective teacher regularly thinks about questions such as:

- **Was my lesson effective?**
- **Did all students understand the topic?**
- **Which teaching method worked well?**
- **What difficulties did students face?**
- **How can I improve my next lesson?**

Example:

A teacher teaches fractions but notices that many students cannot understand the concept. After the class, the teacher reflects on the lesson and decides to use paper-folding activities and visual models in the next class.

2. Characteristics of Reflective Teaching

1. **Self-analysis and self-evaluation.**
2. **Continuous improvement.**
3. **Problem-solving approach.**
4. **Critical thinking.**
5. **Open-mindedness.**
6. **Learning from classroom experiences.**
7. **Focus on students' needs.**
8. **Willingness to accept feedback.**
9. **Use of innovative teaching methods.**
10. **Professional development.**

3. Importance of Reflective Teaching

- **Improves the quality of teaching.**
- **Helps identify teaching weaknesses.**
- **Develops critical thinking.**
- **Improves classroom management.**
- **Makes teachers more confident.**
- **Encourages innovative teaching.**
- **Helps understand individual differences.**
- **Improves student achievement.**
- **Promotes professional growth.**
- **Develops problem-solving abilities.**

4. Strategies for Making Teachers Reflective Practitioners

1. Maintaining a Reflective Diary

Teachers should write about their daily classroom experiences, successes and difficulties.

Example: **A teacher writes that group discussion helped students understand the lesson better.**

2. Self-Evaluation

Teachers should regularly evaluate their own teaching performance.

Example: **After a lesson, a teacher checks whether the learning objectives were achieved.**

3. Peer Observation

Teachers observe each other's classes and provide constructive suggestions.

Example: **Two teachers observe each other's teaching and discuss classroom interaction.**

4. Feedback from Students

Teachers should take feedback from students about teaching methods and classroom activities.

Example: **Students suggest that diagrams would make science lessons easier.**

5. Action Research

Teachers identify classroom problems and conduct small research projects to solve them.

Example: **A teacher studies whether group learning improves students' reading skills.**

6. Video Recording of Lessons

Teachers can record their lessons and observe their communication, teaching style and classroom interaction.

7. Professional Discussion

Teachers should participate in seminars, workshops and professional meetings.

8. Reading Educational Literature

Teachers should read books, journals, research papers and educational articles.

9. Setting Improvement Goals

Teachers should identify specific areas for improvement and make plans to achieve them.

10. Continuous Professional Development

Teachers should attend training programmes and learn new teaching techniques.

5. Reflective Teaching Cycle

1. Planning

Prepare the lesson and learning objectives.

2. Teaching

Teach the lesson using suitable methods.

3. Observation

Observe students' responses and participation.

4. Reflection

Analyse strengths and weaknesses.

5. Improvement

Modify methods and plan the next lesson.

The cycle continues for continuous professional improvement.

UNIT – II: TEACHING TECHNOLOGY

(A) Simulated Teaching: Concept, Procedure, Merits and Limitations

1. Meaning and Concept of Simulated Teaching

Simulated teaching is a teacher-training technique in which student-teachers practise teaching in an artificial or controlled classroom-like situation before teaching in a real classroom.

In this technique, student-teachers perform the role of teachers, while other student-teachers or participants act as students.

The main purpose is to develop teaching skills, confidence, communication skills and classroom management abilities.

Definition:

Simulated teaching is a method of teacher education in which teaching situations are artificially created to provide opportunities for practising teaching skills in a safe and controlled environment.

Example:

In a B.Ed. classroom, one student-teacher acts as a mathematics teacher and teaches the topic of fractions. Other B.Ed. students act as school students. The teacher educator observes the performance and provides suggestions for improvement.



2. Objectives of Simulated Teaching

1. **To develop teaching skills among student-teachers.**
2. **To provide practical teaching experience.**
3. **To develop self-confidence.**
4. **To improve communication skills.**
5. **To develop classroom management skills.**
6. **To provide experience of handling classroom situations.**
7. **To reduce fear and hesitation before real teaching.**
8. **To improve decision-making abilities.**
9. **To develop professional behaviour.**
10. **To prepare student-teachers for real classroom teaching.**

3. Procedure of Simulated Teaching

Simulated teaching is generally conducted through the following steps:

Step 1: Selection of Teaching Topic

The student-teacher selects a suitable topic from the school syllabus.

Example: Parts of a plant.

Step 2: Preparation of Lesson Plan

The student-teacher prepares a lesson plan with teaching objectives, content, teaching aids and questions.

Step 3: Formation of Groups

The teacher educator divides student-teachers into small groups.

Step 4: Assignment of Roles

Different roles are assigned:

- **One student acts as a teacher.**
- **Other students act as learners.**
- **One person may act as an observer.**
- **A teacher educator supervises the activity.**

Step 5: Creation of a Simulated Situation

A classroom-like situation is created. Different teaching and classroom situations may be presented.

Step 6: Teaching Performance

The student-teacher teaches the selected topic and responds to the simulated classroom situation.

Step 7: Observation

The teacher educator and observers evaluate the teaching performance.

Step 8: Feedback

Suggestions are given about strengths and areas requiring improvement.

Step 9: Re-teaching

The student-teacher gets another opportunity to improve the performance.



4. Merits of Simulated Teaching

1. **Develops Confidence: It removes hesitation and fear of teaching.**

2. **Practical Experience: It provides practical teaching experience.**
3. **Safe Environment: Students can practise without affecting real school learners.**
4. **Improves Communication: It develops speaking and explanation skills.**
5. **Classroom Management: It helps teachers practise handling classroom situations.**
6. **Immediate Feedback: Student-teachers receive suggestions for improvement.**
7. **Develops Decision-Making: It prepares teachers to respond to different situations.**
8. **Professional Development: It develops professional attitudes and teaching abilities.**
9. **Learning by Doing: Student-teachers learn through practical participation.**
10. **Improves Teaching Quality: Repeated practice helps improve performance.**

5. Limitations of Simulated Teaching

1. **Artificial Situation: It does not provide a completely real classroom environment.**
2. **Lack of Real Students: Student-teachers may not experience the behaviour of actual schoolchildren.**
3. **Limited Time: Each student may get limited teaching time.**
4. **Lack of Natural Interaction: Communication may not be as natural as in a real classroom.**
5. **Limited Resources: Some institutions may not have sufficient facilities.**
6. **Observer Bias: Evaluation may sometimes be influenced by personal opinions.**
7. **Limited Experience: It cannot replace actual classroom teaching.**

8. **Less Emotional Reality: Real classroom challenges may not be fully reproduced.**

6. Example of Simulated Teaching

Suppose a B.Ed. student selects the topic "Water Conservation".

- **The student prepares a lesson plan.**
- **Three students act as schoolchildren.**
- **One student acts as a teacher.**
- **The teacher explains the importance of saving water.**
- **The teacher asks questions about water wastage.**
- **The observer evaluates the teacher's communication, questioning and explanation.**
- **The teacher educator provides feedback.**

In this way, the student-teacher improves teaching skills before entering a real classroom.

(B) Micro Teaching: Concept, Procedure, Merits and Limitations

1. Meaning and Concept of Micro Teaching

Micro teaching is a teacher-training technique in which a student-teacher practises one specific teaching skill for a short period of time with a small group of students.

It is called micro teaching because the normal classroom teaching process is reduced in terms of:

- **Class size.**
- **Teaching duration.**
- **Subject matter.**
- **Number of teaching skills practised.**

It helps student-teachers develop individual teaching skills through repeated practice and feedback.

Definition:

Micro teaching is a scaled-down teaching technique in which a teacher practises a particular teaching skill in a controlled situation with a small group of learners for a short duration.

Example:

A B.Ed. student teaches five students for 5–10 minutes on the topic "Types of Plants" and focuses only on the skill of questioning.



2. Characteristics of Micro Teaching

1. **It is a teacher-training technique.**
2. **It focuses on one teaching skill at a time.**
3. **It involves a small group of students.**
4. **It has a short teaching duration.**
5. **It involves limited subject matter.**
6. **It provides immediate feedback.**
7. **It encourages repeated practice.**

8. **It develops teaching confidence.**
9. **It helps improve teaching behaviour.**
10. **It is conducted in a controlled environment.**

3. Objectives of Micro Teaching

- **To develop basic teaching skills.**
- **To improve communication skills.**
- **To develop confidence among student-teachers.**
- **To improve classroom interaction.**
- **To develop questioning and explanation skills.**
- **To improve the use of teaching aids.**
- **To develop effective reinforcement techniques.**
- **To provide opportunities for repeated practice.**
- **To improve professional competence.**
- **To prepare teachers for real classroom teaching.**

4. Procedure of Micro Teaching

The micro-teaching procedure generally follows the following cycle:

1. Planning

The student-teacher selects a particular teaching skill and prepares a short lesson.

2. Teaching

The student-teacher teaches a small group of students for approximately 5–10 minutes.

3. Feedback

The teacher educator or observer provides feedback about the performance.

4. Re-planning

The student-teacher modifies the lesson according to the feedback.

5. Re-teaching

The student-teacher teaches the same topic again to another small group.

6. Re-feedback

The observer provides feedback again to identify improvement.

Micro Teaching Cycle

1. Planning

2. Teaching

3. Feedback

4. Re-planning

5. Re-teaching

6. Re-feedback

The cycle can be repeated until the desired teaching skill improves.

5. Merits of Micro Teaching

1. **Development of Teaching Skills: It improves specific teaching skills.**
2. **Self-Confidence: It reduces fear and hesitation.**
3. **Immediate Feedback: Student-teachers receive quick suggestions.**
4. **Repeated Practice: Teachers get opportunities to improve their performance.**
5. **Individual Attention: Each teaching skill receives proper attention.**

6. **Better Communication: It develops clear and effective communication.**
7. **Improved Teaching Methods: Teachers learn to use suitable methods.**
8. **Easy Evaluation: Teaching performance can be observed easily.**
9. **Professional Development: It develops professional competence.**
10. **Preparation for Real Teaching: It provides basic preparation for classroom teaching.**

6. Limitations of Micro Teaching

1. **It is an artificial teaching situation.**
2. **It focuses on individual skills rather than complete teaching.**
3. **It requires additional time for repeated practice.**
4. **It may require video recording and other facilities.**
5. **It does not fully develop classroom management abilities.**
6. **Students may not behave like real schoolchildren.**
7. **It may create pressure during observation.**
8. **It cannot completely replace real classroom teaching.**
9. **It may involve repetitive activities.**
10. **All teaching skills cannot be developed through a single micro-teaching session.**

7. Example of Micro Teaching

A B.Ed. student chooses the topic "The Solar System" and focuses on the skill of explanation.

- **The student prepares a five-minute lesson.**
- **Five students participate.**
- **The student explains the Sun and planets.**
- **The teacher educator observes the lesson.**
- **Feedback is given about clarity, examples and sequence.**
- **The student prepares the lesson again.**

- **The improved lesson is presented once more.**

This process helps develop effective explanation skills.

(C) Skills of Micro Teaching

Micro teaching develops different teaching skills that help student-teachers become effective teachers.

The five important skills included in your syllabus are:

1. **Skill of Introduction.**
2. **Skill of Questioning.**
3. **Skill of Explanation.**
4. **Skill of Reinforcement.**
5. **Skill of Stimulus Variation.**

1. Skill of Introduction

Meaning:

The skill of introduction refers to the ability of a teacher to begin a lesson effectively by creating interest, curiosity and motivation among students.

A good introduction connects students' previous knowledge with the new topic.

Objectives of Skill of Introduction

- **To create interest among students.**
- **To motivate students for learning.**
- **To establish a connection with previous knowledge.**
- **To introduce the new topic.**
- **To gain students' attention.**
- **To create a suitable learning environment.**

Components of Skill of Introduction

1. **Previous Knowledge: Connect the new topic with what students already know.**
2. **Motivation: Create interest through examples, stories or questions.**
3. **Use of Teaching Aids: Use pictures, charts, models and objects.**
4. **Linking Statements: Connect previous knowledge with the new topic.**
5. **Announcement of Topic: Clearly introduce the topic.**

Example:

Topic: Water

Teacher asks:

- **Have you ever seen rain?**
- **Where do we get water from?**
- **Why do we need water?**
- **Can we live without water?**

After students answer, the teacher announces the topic "Importance of Water".



Importance:

- **Makes the lesson interesting.**
- **Develops curiosity.**
- **Encourages participation.**
- **Helps students understand the purpose of the lesson.**
- **Creates readiness for learning.**

2. Skill of Questioning

Meaning:

The skill of questioning refers to the ability of a teacher to ask clear, meaningful and purposeful questions to develop students' understanding and encourage active participation.

Questioning is an important teaching skill because it helps teachers check students' previous knowledge and evaluate their learning.

Objectives of Skill of Questioning

1. **To test previous knowledge.**
2. **To develop critical thinking.**
3. **To encourage classroom participation.**
4. **To develop curiosity.**
5. **To check students' understanding.**
6. **To promote logical thinking.**
7. **To improve communication.**

Components of Skill of Questioning

1. **Clarity: Questions should be clear and understandable.**
2. **Relevance: Questions should relate to the topic.**
3. **Proper Language: Questions should use simple language.**
4. **Distribution: Questions should be asked to different students.**
5. **Wait Time: Students should get sufficient time to think.**
6. **Probing Questions: Additional questions should be used to obtain deeper answers.**
7. **Redirecting: Questions can be redirected to other students.**
8. **Balanced Questions: Questions should include different levels of thinking.**

Types of Questions

Type	Example
Knowledge	What is photosynthesis?
Understanding	Why do plants need sunlight?
Application	How can we save electricity at home?
Analysis	What is the difference between plants and animals?
Evaluation	Why should we protect forests?
Creative	How would you design a pollution-free city?

Example:

Topic: Environment

Teacher asks:

- **What is the environment?**
- **Name two natural resources.**
- **Why should we plant trees?**
- **What happens when forests are destroyed?**

These questions develop students' understanding and thinking abilities.



Importance of Questioning Skill

- **Develops thinking abilities.**
- **Increases classroom participation.**
- **Helps assess learning.**
- **Improves communication.**

- **Encourages students to express their ideas.**

3. Skill of Explanation

Meaning:

The skill of explanation refers to the ability of a teacher to present difficult concepts in a simple, clear, logical and understandable manner.

An effective explanation includes examples, comparisons, facts and suitable teaching aids.

Objectives of Skill of Explanation

- **To make difficult concepts easy.**
- **To develop clear understanding.**
- **To connect theoretical knowledge with practical life.**
- **To remove students' doubts.**
- **To develop logical thinking.**
- **To improve learning outcomes.**

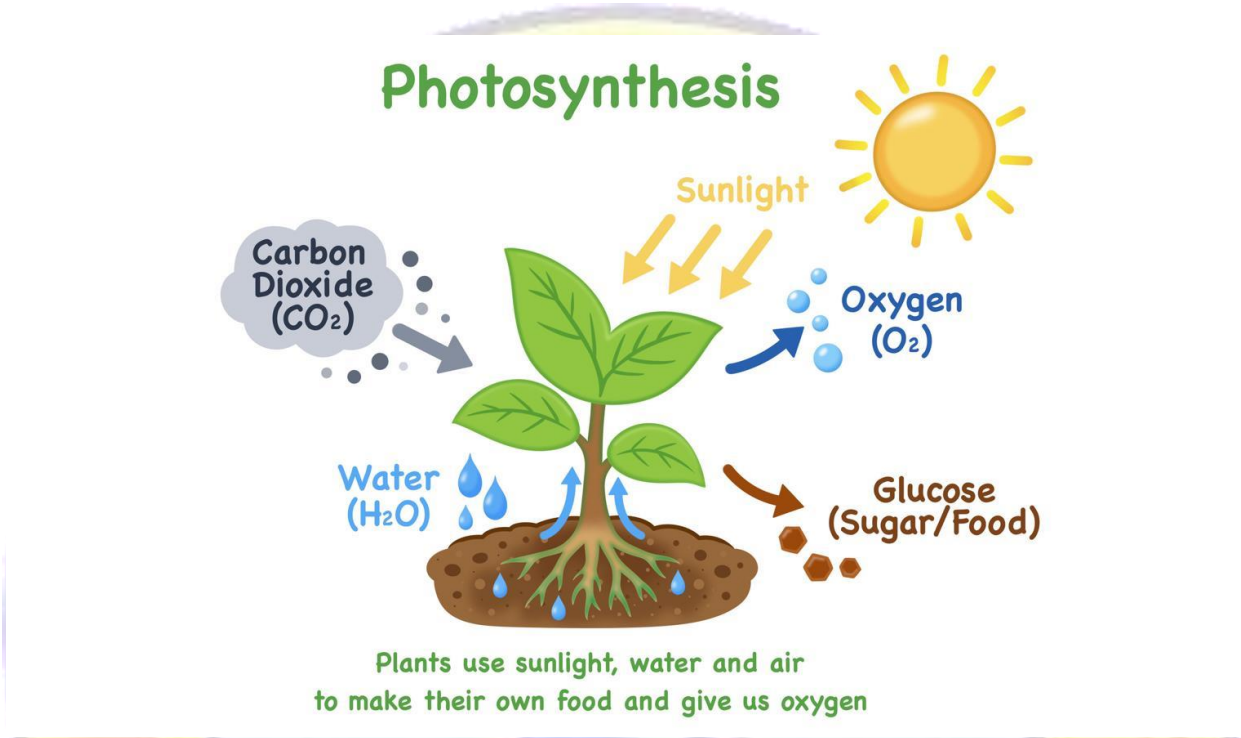
Components of Skill of Explanation

1. **Clarity: Use simple and understandable language.**
2. **Continuity: Present information in a logical sequence.**
3. **Fluency: Explain without unnecessary interruptions.**
4. **Relevant Examples: Use examples related to daily life.**
5. **Use of Teaching Aids: Use diagrams, charts and models.**
6. **Emphasis: Highlight important points.**
7. **Checking Understanding: Ask questions to check whether students understand.**
8. **Avoiding Irrelevant Statements: Keep explanations related to the topic.**

Example:

Topic: Photosynthesis

A teacher explains that plants prepare their food using sunlight, water and carbon dioxide. The teacher uses a diagram to show how the process takes place and explains the importance of chlorophyll.



Importance of Explanation Skill

- **Makes learning easier.**
- **Develops conceptual understanding.**
- **Saves teaching time.**
- **Removes confusion.**
- **Improves students' knowledge.**
- **Connects theory with practical examples.**

4. Skill of Reinforcement

Meaning:

The skill of reinforcement refers to the use of positive responses, appreciation and encouragement by a teacher to strengthen desirable student behaviour and learning responses.

Reinforcement motivates students to participate actively in classroom activities.

Objectives of Reinforcement

1. **To motivate students.**
2. **To encourage correct responses.**
3. **To increase classroom participation.**
4. **To develop self-confidence.**
5. **To create a positive learning environment.**
6. **To strengthen desirable behaviour.**
7. **To develop interest in learning.**

Types of Reinforcement

A. Positive Verbal Reinforcement

The teacher uses encouraging words.

Examples:

- **Very good!**
- **Excellent answer!**
- **Well done!**
- **Correct!**

B. Positive Non-Verbal Reinforcement

The teacher uses gestures and expressions.

Examples:

- **Smiling.**
- **Nodding the head.**

- **Thumbs-up gesture.**
- **Clapping.**

C. Negative Reinforcement

In educational psychology, negative reinforcement means removing an unpleasant condition when a desirable response occurs, thereby strengthening that response. It is not the same as punishment.

D. Social Reinforcement

The teacher appreciates students in front of the class.

Example: Praising a student for helping classmates.

Components of Reinforcement Skill

1. **Positive verbal expressions.**
2. **Positive gestures.**
3. **Appreciation of correct answers.**
4. **Encouraging student participation.**
5. **Appropriate use of praise.**
6. **Avoiding unnecessary repetition of praise.**

Example:

A teacher asks, "What is the capital of India?"

A student answers, "New Delhi."

The teacher says, "Excellent! Your answer is correct."

This appreciation encourages the student to participate again.



Importance of Reinforcement Skill

- **Develops confidence.**
- **Motivates students.**
- **Encourages active participation.**
- **Improves classroom behaviour.**
- **Creates a positive classroom atmosphere.**
- **Strengthens learning.**

5. Skill of Stimulus Variation

Meaning:

Stimulus variation refers to the ability of a teacher to change teaching behaviour, movements, gestures, voice and teaching aids to maintain students' attention and interest during the lesson.

It prevents monotony and makes classroom teaching more effective.

Objectives of Stimulus Variation

1. **To maintain students' attention.**
2. **To remove boredom.**
3. **To create interest in learning.**
4. **To encourage classroom participation.**
5. **To make teaching attractive.**
6. **To improve understanding.**
7. **To make lessons interactive.**

Components of Stimulus Variation

1. **Teacher Movement: Moving appropriately around the classroom.**
2. **Teacher Gestures: Using hand movements and body language.**
3. **Change in Voice: Changing tone, pitch and volume according to the content.**
4. **Focusing: Drawing attention to important points.**
5. **Change in Interaction Style: Changing interaction between teacher and students.**
6. **Pausing: Taking short pauses to allow students to think.**
7. **Use of Teaching Aids: Using charts, pictures, models and videos.**
8. **Change in Sensory Channels: Using visual, auditory and practical experiences.**

Example:

Topic: Solar System

The teacher:

- **Shows a picture of the solar system.**
- **Explains the planets using a chart.**
- **Changes voice emphasis while explaining important facts.**

- **Asks students questions.**
- **Uses a model of the solar system.**

These changes maintain students' attention.



Importance of Stimulus Variation

- **Maintains attention.**
- **Reduces classroom boredom.**
- **Makes lessons interesting.**
- **Improves classroom interaction.**
- **Encourages active learning.**
- **Supports better understanding.**

Difference Between Simulated Teaching and Micro Teaching

Basis	Simulated Teaching	Micro Teaching
Meaning	Practice in an artificial	Practice of a specific teaching

	teaching situation.	**skill.**
Main focus	**Handling teaching situations.**	**Developing individual teaching skills.**
Group	**Depends on the simulated situation.**	**Usually a small group.**
Duration	**Depends on the activity.**	**Usually 5–10 minutes.**
Content	**May involve a broader teaching situation.**	**Limited subject matter.**
Skills	**Different teaching behaviours can be practised.**	**One particular skill is generally practised at a time.**
Feedback	**Given after simulated performance.**	**Given after each teaching cycle.**
Purpose	**Preparation for real classroom situations.**	**Improvement of specific teaching skills.**

Important Mind Maps for Examination

Mind Map 1: Unit I – Teaching as a Profession

TEACHING AS A PROFESSION

1. Teaching

Concept

Nature

Characteristics

Principles

Maxims

2. Profession

Specialized knowledge

Training

Ethics

Responsibility

3. Professional Ethics

Honesty

Equality

Respect

Discipline

4. Accountability

Academic

Professional

Moral

Administrative

5. Reflective Teaching

Planning → Teaching → Observation → Reflection → Improvement

Mind Map 2: Unit II – Teaching Technology

TEACHING TECHNOLOGY

1. Simulated Teaching

Concept

Procedure

Merits

Limitations

Role-play

2. Micro Teaching

Concept

Procedure

Merits

Limitations

Feedback Cycle

3. Five Skills of Micro Teaching

1. Introduction

2. **Questioning**
3. **Explanation**
4. **Reinforcement**
5. **Stimulus Variation**

Mind Map 3: Five Skills of Micro Teaching

MICRO TEACHING SKILLS

1. Introduction

Interest, motivation, previous knowledge, topic announcement

2. Questioning

Clarity, relevance, wait time, probing, distribution

3. Explanation

Clarity, continuity, examples, emphasis, teaching aids

4. Reinforcement

Praise, appreciation, gestures, encouragement

5. Stimulus Variation

Movement, gestures, voice, pauses, interaction, aids

Important Questions for B.Ed. Examination

Long Answer Questions

1. **Explain the concept, nature and characteristics of teaching.**
2. **Discuss the principles and maxims of teaching with suitable examples.**
3. **Explain teaching as a profession and discuss the professional ethics of teachers.**
4. **What is teacher accountability? Explain its different types.**
5. **Explain the concept, importance and strategies of reflective teaching.**
6. **Define simulated teaching. Discuss its procedure, merits and limitations.**
7. **Explain the concept, procedure, merits and limitations of micro teaching.**
8. **Discuss the five important skills of micro teaching with suitable examples.**

Short Answer Questions

1. **What is teaching?**
2. **Define teaching as a profession.**
3. **What is professional ethics?**
4. **Explain teacher accountability.**
5. **What is reflective teaching?**
6. **Define simulated teaching.**
7. **What is micro teaching?**
8. **Explain the micro-teaching cycle.**
9. **What is the skill of introduction?**
10. **Explain the skill of questioning.**
11. **What is reinforcement?**
12. **Explain stimulus variation.**

Quick Revision – Important Points

Topic	Remember
Teaching	Facilitating learning
Teaching profession	Knowledge + Training + Ethics
Professional ethics	Moral principles
Accountability	Responsibility
Reflective teaching	Think, analyse and improve
Simulated teaching	Artificial teaching situation
Micro teaching	Small-scale teaching practice
Introduction	Create interest
Questioning	Ask meaningful questions
Explanation	Make concepts clear
Reinforcement	Encourage desirable responses
Stimulus variation	Maintain attention

Examination Tip: For long-answer questions, write the definition first, followed by characteristics or objectives, detailed explanation, merits and limitations wherever relevant, and one practical

classroom example. Draw the relevant mind map to make your answer more organised.



UNIT-III: Models of Teaching

a) **Models of Teaching: Concept, characteristics, assumptions and fundamental elements of a teaching Model Concept Attainment Model Inquiry Training Model and Inductive thinking model.**
b) **UNIT-IV: Teaching as Communication a) Communication: Concept, Types, principles and barriers in communication. Multimedia in Education: Tele-Conferencing, Internet and use of multimedia presentation and Satellite Communication Recent Trends in Teaching: e-learning. M-learning, Open educational resources, MOOCs and role of social media in teaching.**

B.Ed. Notes – Models of Teaching and Teaching as Communication

Medium to Detailed Explanation
English Medium

These notes cover Concept Attainment Model, Inquiry Training Model, Inductive Thinking Model and Unit IV: Teaching as Communication, with definitions, characteristics, steps, advantages, limitations, classroom examples and mind maps.

UNIT–III: MODELS OF TEACHING

1. Concept Attainment Model

Meaning and Concept

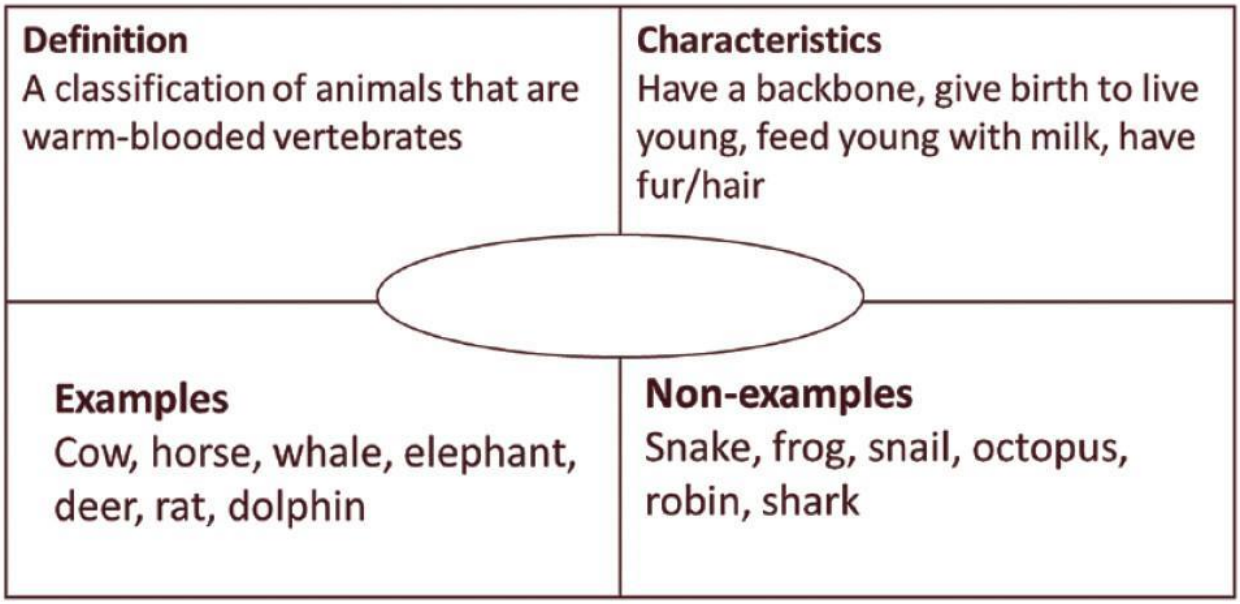
The Concept Attainment Model is a teaching model developed by Jerome S. Bruner, Jacqueline Goodnow and George Austin.

It is based on the process of learning concepts by observing examples and non-examples. Students identify common characteristics and understand the meaning of a concept through comparison and classification.

In simple words, the teacher gives examples and non-examples, and students discover the concept by identifying similarities and differences.

Example: Learning the concept of mammals

- **Positive example: Cow, dog, cat, human being.**
- **Negative example: Fish, frog, lizard.**
- **Students observe the examples and identify that mammals generally give birth to young ones and feed them with milk.**



Characteristics

1. **Student-centred approach: Students actively participate in learning.**
2. **Learning through examples: Concepts are explained through positive and negative examples.**
3. **Development of thinking: It develops analytical and logical thinking.**
4. **Active participation: Students observe, compare and classify information.**

5. **Discovery learning: Students discover concepts themselves.**
6. **Development of observation skills: Students identify similarities and differences.**
7. **Teacher as a guide: The teacher provides examples and guidance.**

Basic Elements

- **Concept: The idea or category to be learned.**
- **Attributes: Common characteristics of a concept.**
- **Positive examples: Examples that belong to the concept.**
- **Negative examples: Examples that do not belong to the concept.**
- **Hypothesis: A possible explanation made by students.**
- **Concept attainment: Correct identification and understanding of the concept.**

Steps / Procedure

1. **Presentation of data: The teacher presents positive and negative examples.**
2. **Identification of attributes: Students observe and identify common features.**
3. **Formation of hypotheses: Students make guesses about the concept.**
4. **Testing of hypotheses: Students test their guesses using more examples.**
5. **Concept formation: Students identify the correct concept.**
6. **Analysis: Students explain the thinking process they used.**

Classroom Example

Topic: Identifying triangles.

The teacher shows different shapes:

- **Positive examples: Equilateral triangle, right-angle triangle, scalene triangle.**
- **Negative examples: Square, rectangle, circle.**

Students observe that a triangle is a closed shape having three sides and three angles.

Advantages

- **Develops critical and logical thinking.**
- **Makes learning interesting and meaningful.**
- **Encourages active participation.**
- **Improves observation and classification skills.**
- **Helps students understand difficult concepts.**
- **Promotes independent learning.**

Limitations

- **Requires careful planning by the teacher.**
- **Takes more classroom time.**
- **Difficult for very young learners if concepts are abstract.**
- **Incorrect examples may create confusion.**
- **Not suitable for teaching every topic.**

Mind Map

CONCEPT ATTAINMENT MODEL

Developer

Jerome Bruner

Method

Examples and non-examples

Process

Observe → Compare → Classify

Skills

Logical and critical thinking

Teacher's role

Guide and facilitator

Outcome

Understanding concepts

2. Inquiry Training Model

Meaning and Concept

The Inquiry Training Model was developed by Richard Suchman.

It is a teaching model in which students learn by asking questions, investigating problems, collecting information and finding solutions.

The main purpose of this model is to develop scientific thinking, curiosity, problem-solving ability and independent investigation among students.

In simple words, students learn by asking questions and discovering answers through investigation.

Characteristics

1. **Problem-centred learning.**
2. **Development of scientific attitude.**
3. **Encourages curiosity and questioning.**
4. **Promotes independent thinking.**
5. **Students actively participate in learning.**
6. **Develops problem-solving skills.**

7. **Learning takes place through investigation and discovery.**

Steps / Procedure

1. **Presentation of the problem: The teacher presents a problem or puzzling situation.**
2. **Data gathering and verification: Students ask questions to collect information and verify facts.**
3. **Experimentation: Students perform investigations or experiments.**
4. **Developing explanations: Students analyse the collected information and develop possible explanations.**
5. **Analysis of inquiry process: Students examine their methods and identify how they reached the conclusion.**

Classroom Example

Topic: Why do some objects float while others sink?

The teacher presents a bowl of water and different objects.

- **Wooden block**
- **Stone**
- **Plastic ball**
- **Metal spoon**

Students ask questions, observe the objects and test their predictions.

They discover that floating and sinking depend on factors such as density, buoyancy and the properties of the object.



Advantages

- **Develops scientific thinking.**
- **Improves problem-solving ability.**
- **Encourages curiosity and creativity.**
- **Develops research and investigation skills.**
- **Makes learning practical and meaningful.**
- **Promotes self-confidence and independent learning.**

Limitations

- **Requires more time.**
- **Needs laboratory materials and resources for some topics.**
- **Difficult to manage in very large classes.**
- **Requires trained and skilled teachers.**
- **Not suitable for every subject or every topic.**

Role of Teacher

- **Presents interesting problems.**
- **Encourages students to ask questions.**
- **Provides learning materials.**
- **Guides investigations.**
- **Encourages students to find their own answers.**
- **Evaluates students' reasoning and conclusions.**

Mind Map

INQUIRY TRAINING MODEL

Developer

Richard Suchman

Main focus

Problem-solving

Method

Questioning and investigation

Steps

Problem → Questions → Experiment → Explanation

Skills

Scientific attitude and reasoning

Outcome

Independent learning

3. Inductive Thinking Model

Meaning and Concept

The Inductive Thinking Model was developed by Hilda Taba.

It is a teaching model in which students move from specific examples to general rules, principles or conclusions.

It follows the inductive method of reasoning.

In simple words, students first study particular facts and examples and then develop a general idea or rule.

Example: The teacher gives examples of roses, sunflowers, lotus flowers and marigolds. Students observe their common characteristics and conclude that these are flowering plants.

Characteristics

1. **Based on observation and analysis.**
2. **Moves from specific to general.**
3. **Encourages active participation.**
4. **Develops logical reasoning.**
5. **Promotes independent thinking.**
6. **Helps students discover rules and principles.**
7. **Makes learning meaningful.**

Three Main Phases

Phase 1: Concept Formation

- **Listing information.**
- **Grouping similar information.**
- **Labelling the groups.**

Phase 2: Interpretation of Data

- **Identifying relationships.**
- **Explaining similarities and differences.**
- **Making generalisations.**

Phase 3: Application of Principles

- **Applying the general rule to new examples.**
- **Predicting results.**
- **Testing the generalisation.**

Classroom Example

Topic: Parts of Speech – Nouns

The teacher gives the following words:

- **Ram**
- **School**
- **Book**
- **Delhi**
- **Teacher**

Students observe that these words are names of persons, places or things.

They develop the general rule:

A noun is the name of a person, place, animal or thing.



Advantages

- **Develops reasoning ability.**
- **Encourages discovery learning.**
- **Improves classification skills.**
- **Develops observation and analytical abilities.**
- **Makes learning student-centred.**
- **Helps students remember concepts for a longer time.**

Limitations

- **Time-consuming method.**
- **Requires careful selection of examples.**
- **Students may develop incorrect generalisations.**
- **Not suitable for all abstract topics.**
- **Requires active student participation.**

Mind Map

INDUCTIVE THINKING MODEL

Hilda Taba

Phase 1

Concept formation

Listing, grouping, labelling

Phase 2

Data interpretation

Relationships and generalisations

Phase 3

Application

Testing and applying rules

Specific Examples → General Rule

Difference Between Three Teaching Models

Basis	**Concept Attainment**	**Inquiry Training**	**Inductive Thinking**
Developer	**Bruner**	**Suchman**	**Hilda Taba**
Main focus	**Learning concepts**	**Solving problems**	**Forming general rules**
Method	**Examples and non-examples**	**Questions and investigation**	**Specific to general**
Main skill	**Classification**	**Scientific inquiry**	**Logical reasoning**
Result	**Concept**	**Problem solution**	**Generalisation**

identification

UNIT–IV: TEACHING AS COMMUNICATION

1. Communication: Concept and Meaning

Meaning

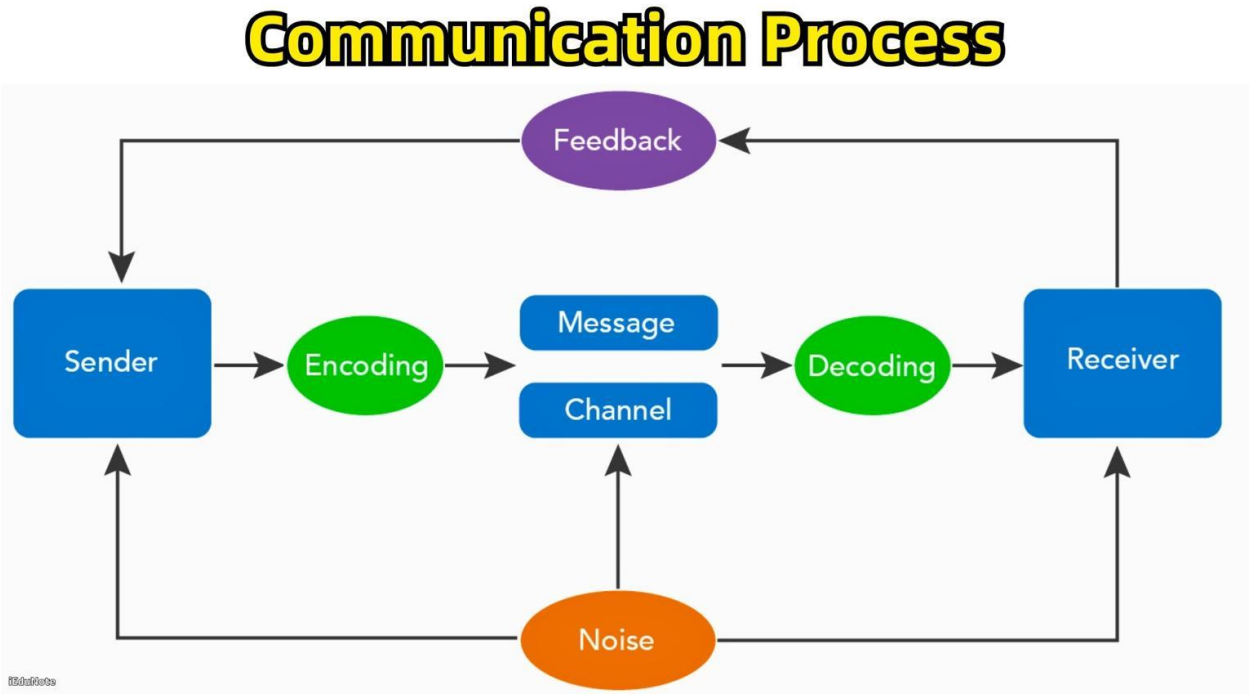
Communication is the process of exchanging information, ideas, thoughts, feelings and knowledge between two or more persons.

In education, communication is the process through which teachers share knowledge, instructions and information with students to achieve educational objectives.

Definition: Communication is a two-way process of sending and receiving messages through verbal, non-verbal or written methods.

Elements of Communication

1. **Sender: The person who sends the message.**
2. **Message: The information or idea being communicated.**
3. **Encoding: Converting an idea into words, symbols or gestures.**
4. **Channel: The medium through which the message is sent.**
5. **Receiver: The person who receives the message.**
6. **Decoding: Understanding the received message.**
7. **Feedback: The receiver's response to the message.**
8. **Noise: Any disturbance that affects communication.**



Example

A teacher explains the water cycle to students.

- **Sender: Teacher.**
- **Message: Explanation of the water cycle.**
- **Encoding: Spoken words and diagrams.**
- **Channel: Classroom teaching.**
- **Receiver: Students.**
- **Decoding: Students understand the explanation.**
- **Feedback: Students answer questions.**
- **Noise: Classroom disturbance.**

Types of Communication

1. Verbal Communication

Communication through spoken words.

Examples:

- **Classroom lectures.**
- **Group discussions.**
- **Seminars.**
- **Question-answer sessions.**

2. Non-Verbal Communication

Communication without using spoken words.

Examples:

- **Facial expressions.**
- **Eye contact.**
- **Body language.**
- **Hand gestures.**
- **Posture.**

3. Written Communication

Communication through written words and symbols.

Examples:

- **Books.**
- **Letters.**
- **Notices.**
- **Assignments.**
- **Emails.**

4. Visual Communication

Communication through pictures, diagrams, charts and symbols.

Examples:

- **Maps.**

- **Graphs.**
- **Educational posters.**
- **PowerPoint slides.**

5. Formal Communication

Communication through officially established channels.

Examples:

- **Principal's instructions.**
- **School notices.**
- **Official meetings.**

6. Informal Communication

Communication that takes place without official rules.

Examples:

- **Friendly discussions.**
- **Informal conversations between teachers and students.**

Communication According to Direction

Type	Meaning	Example
One-way	Information moves in one direction	Teacher's lecture without discussion
Two-way	Sender and receiver exchange messages	Classroom discussion
Upward	Lower level to higher level	Student to principal
Downward	Higher level to lower level	Principal to teacher
Horizontal	Communication at the same level	Teacher to teacher

Principles of Effective Communication

1. **Clarity: The message should be clear and understandable.**
2. **Completeness: All necessary information should be provided.**
3. **Conciseness: The message should be brief and meaningful.**
4. **Correctness: Information should be accurate.**
5. **Courtesy: Communication should be polite and respectful.**
6. **Consideration: The sender should consider the receiver's needs and understanding.**
7. **Feedback: The receiver should get an opportunity to respond.**
8. **Appropriate medium: The correct communication channel should be selected.**
9. **Simplicity: Simple language should be used.**
10. **Active listening: Both teacher and students should listen carefully.**

Barriers to Communication

Barriers are problems that prevent the proper exchange or understanding of information.

1. Physical Barriers

- **Noise in the classroom.**
- **Poor seating arrangements.**
- **Distance between teacher and students.**
- **Poor lighting.**

2. Language Barriers

- **Difficult vocabulary.**
- **Different languages.**
- **Unclear pronunciation.**
- **Lack of understanding of technical terms.**

3. Psychological Barriers

- **Fear.**
- **Stress.**

- **Lack of confidence.**
- **Anxiety.**
- **Lack of interest.**

4. Cultural Barriers

- **Differences in customs.**
- **Different social backgrounds.**
- **Different beliefs and traditions.**

5. Organisational Barriers

- **Poor school management.**
- **Lack of proper communication channels.**
- **Unclear instructions.**
- **Lack of coordination.**

6. Technological Barriers

- **Internet problems.**
- **Power failure.**
- **Microphone problems.**
- **Lack of digital knowledge.**

Measures to Overcome Communication Barriers

- **Use simple and clear language.**
- **Maintain a friendly classroom environment.**
- **Encourage students to ask questions.**
- **Use suitable teaching aids.**
- **Provide proper feedback.**
- **Avoid unnecessary noise.**
- **Respect cultural and individual differences.**
- **Develop active listening skills.**
- **Use technology appropriately.**

Classroom Example

A teacher is teaching mathematics to students. Some students cannot understand the English mathematical terms.

The teacher explains the concepts using simple language, Punjabi examples, diagrams and practical activities.

As a result, students understand the lesson more effectively.

Mind Map – Communication

COMMUNICATION

Concept

Exchange of ideas and information

Elements

Sender, message, channel, receiver, feedback

Types

Verbal, non-verbal, written, visual

Principles

Clarity, correctness, completeness, courtesy

Barriers

Physical, language, psychological, cultural

Solutions

Feedback, simple language, active listening

2. Multimedia in Education

Meaning and Concept

Multimedia refers to the use of different forms of media such as text, pictures, audio, video, animation and graphics to present information.

In education, multimedia is used to make teaching and learning more interesting, effective, interactive and understandable.

Example: A teacher uses a PowerPoint presentation with pictures, videos, diagrams and audio to explain the solar system.



Components of Multimedia

1. **Text: Written information, words and sentences.**
2. **Images: Photographs, drawings and diagrams.**
3. **Audio: Music, recorded lectures and explanations.**
4. **Video: Moving pictures used for demonstrations.**
5. **Animation: Moving graphics used to explain processes.**
6. **Graphics: Charts, maps and illustrations.**

Importance of Multimedia in Education

- **Makes teaching interesting.**
- **Improves student attention.**
- **Helps explain difficult concepts.**
- **Supports visual and auditory learning.**
- **Encourages active participation.**
- **Saves teaching time.**
- **Improves understanding and retention.**
- **Supports distance education.**
- **Provides opportunities for self-learning.**

Advantages

- **Makes learning enjoyable.**
- **Provides practical demonstrations.**
- **Improves classroom interaction.**
- **Supports different learning needs.**
- **Increases access to educational information.**

Limitations

- **Requires electricity and equipment.**
- **Internet may not always be available.**
- **Technical problems can interrupt teaching.**
- **Some multimedia equipment is expensive.**
- **Excessive use may distract students.**

3. Tele-Conferencing

Meaning

Tele-conferencing is a method of communication in which two or more people communicate with one another from different locations using electronic communication technology.

It allows teachers, students and experts to interact without being physically present in the same place.

Types of Tele-Conferencing

1. Audio Conferencing

People communicate through audio or telephone connections.

Example: A teacher conducts a discussion with students through a telephone conference.

2. Video Conferencing

People communicate through live audio and video.

Example: A teacher conducts an online class through Google Meet or Zoom.

3. Web Conferencing

People communicate through internet-based platforms, often using screen sharing, presentations and chat facilities.

Example: An online educational seminar.



Importance in Education

- **Supports distance learning.**
- **Connects teachers and students from different places.**
- **Provides access to subject experts.**
- **Saves travelling time and expenses.**
- **Supports online meetings and seminars.**
- **Encourages collaborative learning.**

Advantages

- **Learning from anywhere.**
- **Real-time interaction.**
- **Sharing of educational materials.**
- **Easy communication with experts.**
- **Useful for teacher training.**

Limitations

- **Requires internet connectivity.**
- **Technical issues may occur.**
- **Communication may be affected by poor audio or video.**
- **Students may face difficulties without suitable devices.**

Classroom Example

A college invites an educational expert from Delhi to conduct an online lecture for B.Ed. students in Punjab. Students interact with the expert and ask questions through video conferencing.

4. Internet in Education

Meaning

The Internet is a worldwide network of interconnected computers and digital devices that allows people to share information and communicate with one another.

In education, the internet provides access to online books, educational websites, videos, digital libraries, online courses and learning platforms.

Uses of the Internet in Education

1. **Online learning and teaching.**
2. **Access to e-books and digital libraries.**
3. **Educational research.**
4. **Online examinations and assessments.**
5. **Communication between teachers and students.**
6. **Downloading study materials.**
7. **Watching educational videos.**
8. **Participating in online courses.**
9. **Attending virtual classes.**
10. **Sharing assignments and projects.**

Educational Platforms

- **DIKSHA – Digital learning resources.**
- **SWAYAM – Online educational courses.**
- **YouTube – Educational videos and lectures.**
- **Google Classroom – Managing assignments and classroom activities.**
- **National Digital Library of India – Digital educational resources.**



Advantages

- **Provides worldwide educational information.**
- **Supports self-learning.**
- **Saves time.**
- **Makes distance education possible.**
- **Improves digital literacy.**
- **Provides access to updated study materials.**

Limitations

- **Internet connectivity problems.**
- **Risk of incorrect information.**
- **Distractions from non-educational websites.**
- **Digital inequality.**
- **Privacy and cybersecurity concerns.**

5. Use of Multimedia Presentation in Education

Meaning

A multimedia presentation is a method of presenting information using a combination of text, images, audio, videos, charts, animations and graphics.

PowerPoint is a common tool used for multimedia presentations.

Features

- **Attractive slides.**
- **Use of pictures and diagrams.**
- **Audio and video facilities.**
- **Animation and transitions.**
- **Charts and graphs.**
- **Easy sharing of information.**

Educational Uses

1. **Explaining difficult topics.**
2. **Presenting scientific experiments.**
3. **Teaching historical events.**
4. **Showing geographical maps.**
5. **Presenting project work.**
6. **Conducting seminars.**
7. **Explaining mathematical concepts.**

Example

Topic: Solar System.

A teacher prepares a PowerPoint presentation containing:

- **Pictures of planets.**
- **Videos of planetary movements.**

- **Information about the Sun.**
- **Diagrams showing the order of planets.**
- **Animations explaining rotation and revolution.**



Advantages

- **Attracts students' attention.**
- **Makes information easy to understand.**
- **Improves memory and retention.**
- **Saves classroom teaching time.**
- **Supports effective explanation.**
- **Encourages student participation.**

Limitations

- **Requires technical knowledge.**
- **Preparation takes time.**
- **Equipment may be expensive.**
- **Too much text or animation can distract students.**

6. Satellite Communication

Meaning

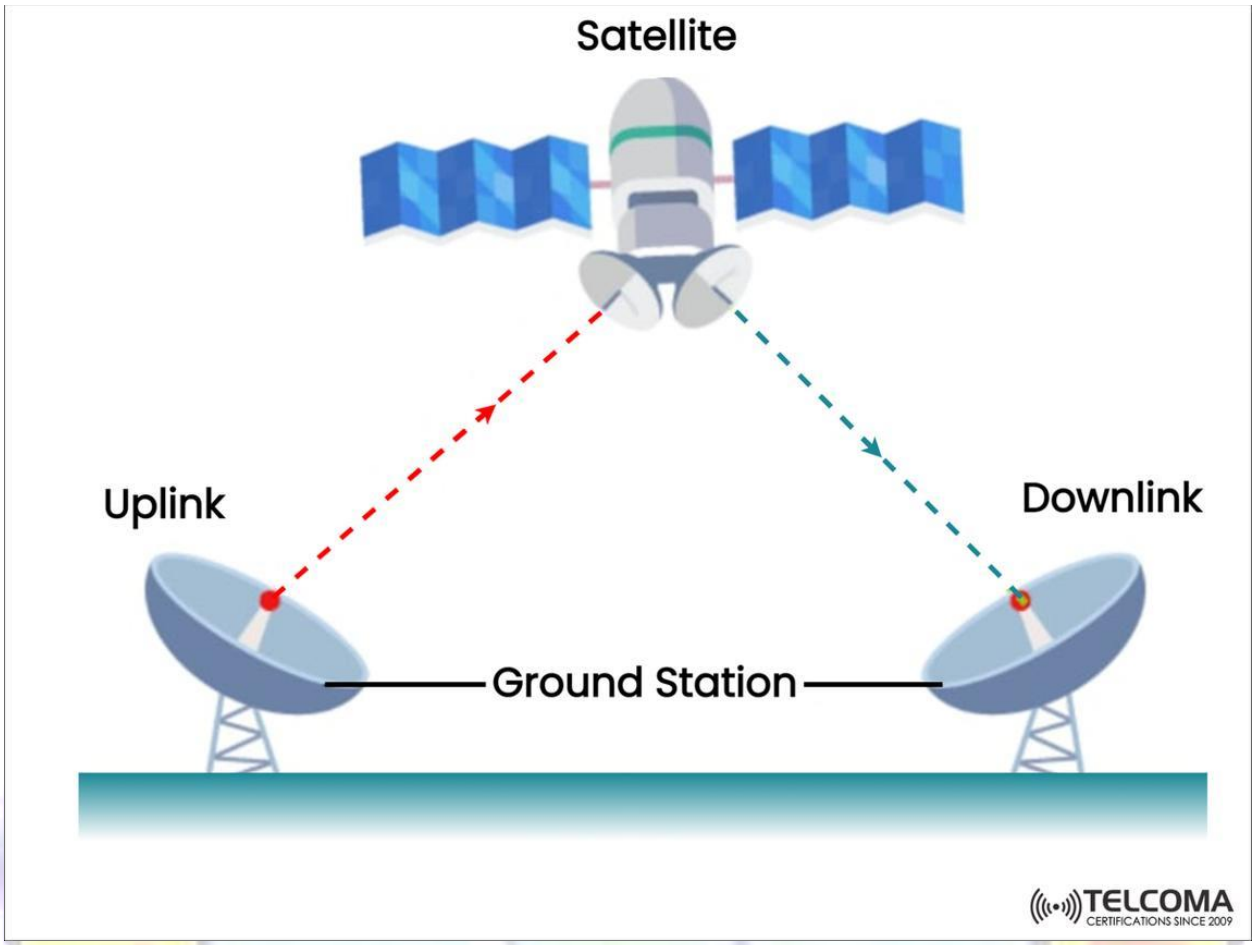
Satellite communication is a method of transmitting information from one place to another through artificial satellites placed in space.

Satellites receive signals from ground stations and transmit them to other locations.

In education, satellite communication helps provide educational programmes, online learning opportunities and distance education to remote areas.

Working of Satellite Communication

1. **A ground station sends an educational signal to a satellite.**
2. **The satellite receives the signal.**
3. **The satellite processes and retransmits the signal.**
4. **Another ground station or receiving device receives the signal.**
5. **Students and teachers access the educational programme.**



Uses in Education

- **Educational television programmes.**
- **Distance education.**
- **Teacher training.**
- **Educational broadcasting.**
- **Providing lessons to rural areas.**
- **Sharing educational information across large distances.**
- **Supporting communication during educational programmes.**

Example

EDUSAT: India's educational satellite project was launched in 2004 to support education through satellite-based communication.

It helped connect educational institutions and support distance learning.

Advantages

- **Reaches remote and rural areas.**
- **Supports distance education.**
- **Provides educational broadcasts.**
- **Connects different educational institutions.**
- **Helps in teacher training.**
- **Supports large-scale educational communication.**

Limitations

- **High installation and maintenance costs.**
- **Dependence on technical infrastructure.**
- **Weather conditions may affect some satellite signals.**
- **Requires suitable receiving equipment.**

7. Recent Trends in Teaching

Recent trends in teaching refer to modern methods, technologies and approaches used to improve the quality of education.

Important trends include:

- **E-learning.**
- **M-learning.**
- **Open Educational Resources.**
- **MOOCs.**
- **Social media in teaching.**

A. E-Learning

Meaning

E-learning means electronic learning. It is a method of learning through electronic devices such as computers, laptops, tablets and smartphones using digital educational resources.

It may take place through the internet or offline digital materials.

Characteristics

1. **Learning through electronic devices.**
2. **Online study materials.**
3. **Flexible learning time.**
4. **Virtual classrooms.**
5. **Online assessments.**
6. **Recorded lectures.**
7. **Self-paced learning.**

Types of E-Learning

1. Synchronous Learning: Teachers and students learn together at the same time.

Example: Live online classes through Google Meet.

2. Asynchronous Learning: Students learn at different times according to their convenience.

Example: Watching recorded lectures and completing online assignments.

Advantages

- **Flexible learning.**
- **Easy access to study materials.**
- **Supports distance education.**
- **Saves travelling time.**
- **Provides recorded lectures.**
- **Encourages independent learning.**

Limitations

- **Requires digital devices.**
- **Internet access may be limited.**
- **Less face-to-face interaction.**
- **Technical difficulties.**
- **Requires self-discipline.**



Example

A B.Ed. student attends online classes, downloads notes and watches recorded lectures to prepare for examinations.

B. M-Learning (Mobile Learning)

Meaning

M-learning means Mobile Learning. It is a modern educational method in which students use mobile devices such as smartphones and tablets to access educational information and learning activities.

Characteristics

- **Learning through smartphones.**
- **Learning anytime and anywhere.**
- **Portable learning materials.**
- **Mobile applications.**
- **Online quizzes and tests.**
- **Audio and video lessons.**

Uses in Education

1. **Reading e-books.**
2. **Watching educational videos.**
3. **Attending online classes.**
4. **Using educational applications.**
5. **Solving online quizzes.**
6. **Communicating with teachers.**
7. **Downloading notes.**

Advantages

- **Easy to carry.**
- **Flexible learning.**
- **Quick access to information.**
- **Supports self-learning.**
- **Encourages digital literacy.**
- **Provides immediate communication.**

Limitations

- **Small screen size.**
- **Battery and internet problems.**
- **Distractions from notifications.**
- **Not all students have smartphones.**
- **Excessive screen use may cause discomfort.**



Example

A student uses a smartphone to watch a science lesson, read PDF notes and attempt an online quiz.

Difference Between E-Learning and M-Learning

E-Learning	M-Learning
Electronic learning	Mobile learning
Uses computers, laptops and mobile devices	Mainly uses smartphones and tablets
May be online or offline	Often uses mobile applications and connectivity
May involve fixed learning locations	Highly portable
Example: Online computer course	Example: Learning through a mobile app

C. Open Educational Resources (OER)

Meaning

Open Educational Resources are teaching, learning and research materials that are freely available for use and, depending on their licence, adaptation and redistribution.

They may include textbooks, notes, videos, lectures, presentations, diagrams and online courses.

OER generally use open licences, such as Creative Commons licences, which explain how materials can be reused.

Characteristics

1. **Freely accessible resources.**
2. **Supports self-learning.**
3. **Encourages sharing of knowledge.**
4. **May be modified and adapted under the licence conditions.**
5. **Supports teachers and students.**
6. **Reduces the cost of educational materials.**

Types of OER

- **Open textbooks.**
- **Educational videos.**
- **Online lectures.**
- **Digital notes.**
- **Educational presentations.**
- **Research materials.**
- **Online learning modules.**



Importance in Education

- **Makes education more affordable.**
- **Provides equal learning opportunities.**
- **Supports teachers in lesson preparation.**
- **Encourages collaborative learning.**
- **Improves access to educational materials.**
- **Promotes innovation in teaching.**

Advantages

- **Reduces the cost of books.**
- **Available to many learners.**
- **Supports lifelong learning.**
- **Can be adapted to local needs where licences allow.**
- **Encourages knowledge sharing.**

Limitations

- **Quality may vary.**
- **Internet may be required.**
- **Some resources may be outdated.**
- **Copyright and licensing conditions must be checked.**
- **Teachers need digital skills.**

Examples

- **OER Commons.**
- **MIT OpenCourseWare.**
- **OpenStax.**

D. MOOCs (Massive Open Online Courses)

Meaning

MOOC stands for Massive Open Online Course.

It is an online course designed to provide educational opportunities to a large number of learners through the internet.

Students can join courses from different locations and learn from experts and educational institutions.

Characteristics

1. **Massive participation.**
2. **Open access, subject to course conditions.**
3. **Online learning.**
4. **Flexible learning.**
5. **Video lectures.**
6. **Online assignments and quizzes.**
7. **Discussion forums.**
8. **Certificates may be available depending on the course.**

Types of MOOCs

1. xMOOCs

These are structured courses with video lectures, quizzes, assignments and assessments.

Example: A structured online computer science course.

2. cMOOCs

These focus on collaboration, knowledge sharing, discussion and networking among learners.

Example: An online course in which learners develop knowledge through group discussions and shared projects.



Advantages

- **Provides learning opportunities to large numbers of people.**
- **Access to courses from experts.**

- **Flexible learning.**
- **Supports lifelong education.**
- **Offers courses in different subjects.**
- **Can reduce educational costs.**

Limitations

- **Requires internet access.**
- **Students need self-motivation.**
- **Limited personal interaction.**
- **Some courses have low completion rates.**
- **Certificates may involve fees or conditions.**

Examples

- **SWAYAM.**
- **Coursera.**
- **edX.**

Importance of MOOCs in Teacher Education

- **Provides professional development opportunities.**
- **Helps teachers learn new teaching methods.**
- **Improves subject knowledge.**
- **Supports continuous professional development.**
- **Provides access to educational experts.**

E. Role of Social Media in Teaching

Meaning

Social media refers to online platforms that allow people to communicate, share information, exchange ideas and create content.

In education, social media can be used by teachers and students for communication, collaboration, discussion and sharing educational resources.

Examples of Social Media Platforms

- **YouTube – Educational videos and lectures.**
- **WhatsApp – Sharing notes and class announcements.**
- **Telegram – Educational groups and study materials.**
- **Facebook – Educational communities and discussions.**
- **Instagram – Educational reels and visual learning.**
- **LinkedIn – Professional learning and networking.**



Media in Teaching

1. Sharing Educational Materials

Teachers can share notes, presentations, videos and assignments.

2. Communication

Teachers can communicate with students and parents.

3. Collaborative Learning

Students can work together on projects and group activities.

4. Online Discussions

Students can discuss educational topics and share ideas.

5. Access to Knowledge

Students can access educational videos, lectures and learning resources.

6. Teacher Development

Teachers can connect with other educators and learn new teaching strategies.

7. Creativity

Students can create educational videos, presentations and digital projects.

Advantages

- **Easy communication.**
- **Quick sharing of information.**
- **Encourages collaboration.**
- **Provides access to educational resources.**
- **Supports creative learning.**
- **Develops digital skills.**

Limitations

- **Students may become distracted.**
- **False information may spread.**
- **Privacy concerns.**
- **Cyberbullying risks.**
- **Excessive screen time.**
- **Not all online content is educational.**

Measures for Safe and Effective Use

- **Use reliable educational sources.**
- **Protect personal information.**
- **Avoid sharing private student details.**
- **Follow school rules.**
- **Maintain respectful communication.**
- **Verify information before sharing.**
- **Use age-appropriate platforms and supervised educational activities.**

Classroom Example

A teacher creates a class learning group to share homework instructions, educational videos, important notices and revision materials. Students use the group for academic discussion under the teacher's supervision.

Complete Mind Maps – UNIT IV

Mind Map 1: Teaching as Communication

TEACHING AS COMMUNICATION

Communication

Meaning, elements and types

Verbal, non-verbal, written, visual

Principles

Clarity, correctness, completeness

Feedback and active listening

Barriers

Physical, language, psychological

Cultural and technological

Multimedia

Text, audio, video, graphics

Animation and pictures

Communication Technologies

Tele-conferencing • Internet • Multimedia presentations • Satellite communication

Mind Map 2: Recent Trends in Teaching

RECENT TRENDS IN TEACHING

1. E-Learning

Electronic learning

Online classes, recorded lectures

2. M-Learning

Mobile learning

Smartphones, tablets, apps

3. OER

Open Educational Resources

Free and openly licensed materials

4. MOOCs

Massive Open Online Courses

Large-scale online courses

5. Social Media in Teaching

YouTube • WhatsApp • Telegram • Facebook • Instagram

Communication, collaboration and sharing educational resources

Quick Revision – Important Points for B.Ed. Examination

Topic	Important name / key point
Concept Attainment Model	Jerome S. Bruner
Inquiry Training Model	Richard Suchman
Inductive Thinking Model	Hilda Taba
Communication	Exchange of information
Multimedia	Combination of different media
Tele-conferencing	Communication from different locations
Internet	Worldwide computer network
Multimedia Presentation	Text, images, audio and video
Satellite Communication	Communication through artificial satellites
E-learning	Electronic learning
M-learning	Mobile learning
OER	Open Educational Resources
MOOCs	Massive Open Online Courses
Social Media	Online communication and collaboration

Important Questions for Examination

1. **Explain the Concept Attainment Model with its characteristics, steps, merits and limitations.**

2. **Describe the Inquiry Training Model with a suitable classroom example.**
3. **Explain the Inductive Thinking Model and its three phases.**
4. **Differentiate between Concept Attainment, Inquiry Training and Inductive Thinking Models.**
5. **Define communication and explain its types and principles.**
6. **Discuss the major barriers to effective communication.**
7. **Explain the meaning, components and importance of multimedia in education.**
8. **What is tele-conferencing? Explain its types and educational importance.**
9. **Explain the role of the internet in education.**
10. **Discuss the importance of multimedia presentations in classroom teaching.**
11. **Explain satellite communication and its educational uses.**
12. **Differentiate between E-learning and M-learning.**
13. **What are Open Educational Resources? Explain their importance.**
14. **Explain MOOCs, their types, advantages and limitations.**
15. **Discuss the role of social media in teaching and learning.**

Examination tip: For long-answer questions, write the meaning, definition, characteristics, steps or types, educational example, advantages and limitations. Draw the relevant mind map or flowchart to make your answer more effective.