

UGC-NET

Paper - 1

NATIONAL TESTING AGENCY (NTA)

PAPER – 1 || VOLUME – 1

Teaching & Research Aptitude, Comprehension & Communication



UGC NET PAPER - 1

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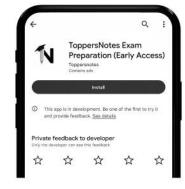
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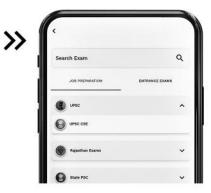
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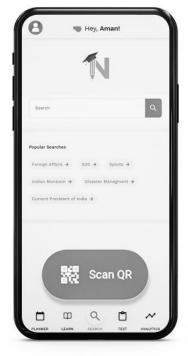
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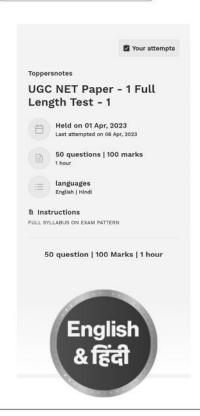


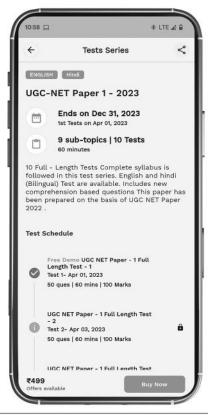


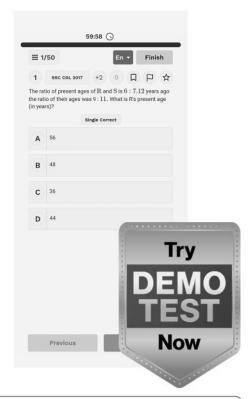
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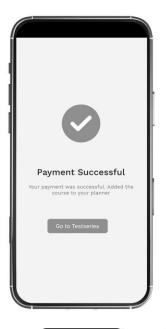
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Chapter Analysis

UNIT - 1

Teaching Aptitude

Chapter	1	2	3	4	5	6
Questions	2	1	1-2	1	1	1-2



- ✓ Weightage from the examination point of view : Min 5 MCQ to Max 9-11 MCQ.
- ✓ Statement-based & assertion Reason based questions being asked from this unit.
- ✓ This is one of the most important unit for NTA UGC NET Exam.
- ✓ Students must practice all PYQs after reading important concepts covered in this book.

Key Points

- Statements by Famous Researcher
- Objectives of Teaching
- Teaching Learning Environment
- Bloom's Taxonomy
- Individual Differences
- Adolescent & Adult Learner's Characteristics

- Cognitive Domain
- Different Teaching Strategies
- SWAYAM, Swayam Prabha & MOOC Platform
- > Types of Evaluation System
- Choice Based
- Credit System

] UNIT

Teaching Aptitude



Chapter -1

Teaching

When a person imparts information or skills to another, it is common to describe the action as teaching. Imparting may mean to share experiences or communicating information, for instance, lecture. Teaching is regarded as both an art and science. As an art, it lays stress on the imaginative and artistic abilities of the teacher in creating a worthwhile situation in the classroom to enable students to learn. As a science, it sheds light on the logical, mechanical or procedural steps to be followed to attain an effective achievement of goals. Different educationists hold different ideas regarding the concept of

Teaching. "Teaching is intimate contact between a more mature personality and a less mature one which designed to further the education of the latter". Morrison (1934) and Dewey (1934) expressed this concept of teaching by an equation. "Teaching is learning as selling is to buying".

According to Morrison

"Teaching is a disciplined social process in which teacher influences the behaviour of less experienced Pupil and helps him to develop according to needs and ideas of society".

According to Smith- "Teaching is an organised system of specific activity aim to help the learner, to learn Something".

There are 3 processes involved in teaching: -

- 1. Agent or source producing the learning
- **2.** Goal or the target to be achieved
- 3. Intervening variables

According to Gage (1963)

"Teaching is a form interpersonal influence aimed at changing the behaviour potential of another person".

Types: -

- 1. Autocratic method (Teacher centric)
 - Teacher decides everything
 - No feedback between more mature & less/no mature one.

2. Democratic Teaching - Best Method

- Definition- Student centric
- Feedback is always done

3. Laissez - Faire Teaching - Put your hands off

- Teacher is not concerned with students.
- Teacher is expecting that students do everything by their own.
- This method is subject centric.



Basic Teaching Models

(2019)

Pedagogy Model

Pedagogy relates to the learning journey of children & involves best practices to help children learn Effortlessly.

Pedagogy is referred to as the science of teaching and impacts the learning processes of students. It is Focused on building on the previous knowledge of the students. In this, the teacher plays a major role To go ahead in the syllabus and solve the problems. It encourages the students to learn concepts and Apply them in real-life situations apart from their books.

Pedagogy is a way of imparting knowledge and skills in the educational context. It plays a very Important role in the early education of children. The teachers must make sure that the students are in a good learning atmosphere for better learning outcomes.

Andragogy Model

Andragogy is a learning theory for adults who learn by themselves. It means that the student is self driven and does not require much guidance. They make use of various resources which help them get through major challenges and issues in learning. In this format students' experience of learning plays an important part and helps them to improve in the subject.

It cannot be said that there won't be any role of a teacher but the guidance will be limited to discussing their experiences and progress and understanding problem solving.

• Four Main Aspects of Andragogy-

- 1. Learners must be involved in their planning and evaluation.
- 2. The subjects must be based on real-life to drive the learners.
- 3. Must have experience in learning.
- 4. The learning process of students should be problem-centric.

Characteristics of Teaching

(2012, 2017, 2019, 2021)

The characteristics of teaching are as follows -

- 1. Teaching is an effective interaction between teacher and students.
- 2. Teaching is both arts as well as science. Teaching is an art as it calls for the exercise of talent and creativity. Teaching as science involves a repertoire of techniques, procedures and skills, that can be systematically studied, described and improved. A good teacher is one who adds creativity and inspiration to the basic repertoire.
- 3. Teaching has various forms, like formal and informal raining, conditioning or indoctrination, etc.
- 4. Teaching is dominated by the skill of communication.
- 5. Teaching is a triploid process; the three poles are, educational objectives, learning experiences and change in behavior.
- 6. Teaching should be well planned and the teacher should decide the objectives methods of teaching and evaluation techniques.
- 7. Teaching is suggesting and not dictating.
- 8. Good teaching is democratic and teacher respects the students, encourages them to ask questions, answer questions and discuss things.
- 9. Teaching provides guidance, direction and encouragement to the students.





- 10. Teaching is a cooperative activity and teacher should involve students in different classroom activities, such as organization, management, discussion, recitation and evaluation of results.
- 11. Teaching is kind and sympathetic, and a good teacher develops emotional stability among children.
- 12. Teaching is remedial, and the teacher must solve the learning problems of students.
- 13. Teaching helps children to make adjustments in life.
- 14. Teaching is a professional activity that helps to bring about harmonious development of children.
- 15. Teaching stimulates students' power of thinking and directs them towards self-learning.
- 16. Teaching can be observed, analyzed and evaluated.
- 17. Teaching is a specialized task and may be taken as a set of component skills for the realization of a specified set of instructional objectives.

Teaching Style

- 1. Formal Authority
- 2. Demonstrator
- 3. Facilitator
- 4. Delegator

1. Formal Authority

- Autocratic i.e. [Teacher centered]
- Focus on content only
- Teacher gives into a student receives.

2. Demonstration of Personal model Teaching

- Teacher centered
- Focus on Demo & modeling

Ex. lab experiment

Teachers give demonstration and Students learn from them. Students are allowed only to view

3. Facilitator

- who support / help in completion of task
- focus on activity
- Student centered, Example: Students done experiment in the lab by their own.
- Done group activities for student collaboration, active learning and problem solving.
- Activity is learning through role-play, games etc.

4. Delegator

- have control or responsibility of learning on students (single / group)
- Ex. school Projects made by students only. Teachers give only topics.
- used in higher education
- Teacher work as consultative role, is help students in problem solving only.

Different levels of Teaching

(2014, 2015, 2018 -2022)

The teacher has to choose the level of teaching based on the concepts and the intensity of the subject matter. A teacher takes different roles in a classroom based on the situation. Let us explore the levels of teaching.

We all know that teaching is a purposeful activity. Through teaching, a teacher brings a desirable change in the learners. Both the concepts of teaching and learning are interrelated to each other. The development of the all-round personality of the learner is the final goal of teaching and learning. During teaching, an interaction takes place between an experienced person (teacher) and an inexperienced one (student). Here the main aim is to bring change in the behavior of the student.

Teachers teach students at three levels. They have to keep in mind about the developmental stage of the learners so that desired educational objectives can be achieved.



These Three Levels are as Follows -

- 1. Memory level- Thoughtless teaching
- 2. Understanding level- Thoughtful teaching
- 3. Reflective level- Upper thoughtful level

1. Memory Level of Teaching (MLT)

- The objective of the Memory Level of teaching is just to impart information or knowledge to the learner. This knowledge or information is factual in nature, which is acquired through a mechanical process (i.e. memorization or rote learning).
- Memory Level of teaching covers only the knowledge-based objective of Bloom's taxonomy where the students learn to identify, recall or remember the objects, events, ideas and concepts and retain them in memory.
- Memory level teaching lacks insight. Psychologically, it is cognitive level teaching.

(A) Memory level by Herbart

- Initial stage of teaching (Base) (Lowest level)
- o Rote learning Ex Nursery class me bacho ko A, B, C, D, ratta marwate hai.
- Stimulus Response is done
- o Evaluation is done oral and written.
- It does not improve intelligence and increase students capability but is required for other types of teaching levels.

(B) Important Points of Memory Level of Teaching (MLT)

- It is supported by Herbart Theory of Appreciation, which states that this level of teaching seeks the learner to acquaint himself with the relationship between the facts and symbols.
- It is the first stage of teaching to get factual information. Useful for children in the lower classes because of their intellect is under development and they have a rote memory.
- MLT aims to get factual information, to train memory, to retrain the learning material inmemory storage, to reproduce and recognize the learned information when required
- Teacher dominated methods are used- like drill, review, and revision and asking questions.
 - The evaluation system mainly includes oral, written, and essay-type examinations.
 - Good memory includes rapidity in learning, stability of retention, rapidity in recalling, and ability to bring only desirable contents to the conscious level.
 - Memory level teaching acts as the first step for understanding and reflective levels of teaching. It is a pre-requisite for understanding level teaching.

(C) Merits/ Advantages Memory Level of Teaching

- Useful for young children
- Useful for the acquisition of facts, information of models and structure
- Help children learn a new concept
- Useful for slow learners



(D) Demerits / Disadvantages of Memory Level of Teaching

- Not suitable for higher classes
- Use of rote memory
- Dominance of teacher
- Little interaction in the classroom
- No room for initiation and self-learning for the students
- Not intrinsic motivation
- o Problem of classroom management
- Loss of recall and retention.

2. Understanding Level of Teaching (ULT)

- It comes in between the memory level and reflective level. This stage of teaching involves a
 moderate level of thoughtful behaviour. It is a pre-requisite for the reflective level teachinglearning, which requires the use of higher mental processes. The term "understanding" literally
 means to comprehend, to grasp, and to have knowledge of, to learn, to interpret and to infer,
 etc.
- Morrison very clearly stated that understanding is not merely being able to recall something; it is not mere generalization deduced from specific facts; it is an insight into how it may be used in future situations. Morrison asserted that the outcome of all teaching is 'Mastery' and not memorization of facts. He proposed a unit plan, each unit representing an insight which is relatively complete in itself.
- Understanding level teaching (ULT)
- Develop intellectual behavior
- Memory + insight
- Evolution method = written + objective
- Means perceive the meaning your lifetime.

Example: - In MLT we rote everything and never try to get the meaning but in ULT we try to understand the meaning of every word and try to use them.

- So, it is somehow based on MLT.
- Focus on mastery of subject (subject centric)

(A) Important Points

- o Morrison is the main proponent of understanding level of teaching.
- o It is 'memory plus insight' as it goes beyond just memorizing facts.
- It focuses on the mastery of the subject.
- o It makes pupils understand generalizations, principles, and facts.
- o It provides more and more opportunities for the students to develop 'intellectual behaviour'.
- o It provides an active role for both the pupil and the teacher for the assimilation of facts.
- o The evaluation system mainly includes both essay and objective-type questions.

(B) Merits/ Advantages of Understating Level of Teaching (ULT)

- Effective learning
- Development of different cognition abilities
- Sets stages for entering into the Reflective Level of Teaching
- o Effective classroom interaction



(C) Demerits or Disadvantages of Understanding Level of Teaching (ULT)

- Ignores higher cognitive abilities
- o Less emphasis on intrinsic motivation
- No individualized learning
- o Teacher centered

3. Reflective Level of Teaching (RLT) (2016)

This Level of teaching is the highest level of teaching # learning activity. It is the stage of learning
when students do not merely repeat and revise or answer the questions as asked for; nor do they
only understand, learn, interrelate or interpret the concepts but also, they ponder upon,
contemplate and pay serious thoughtful consideration to the presented contents.

(A) The main objectives of Reflective Level of Teaching are

- To develop insight into the learner to solve problems.
- To develop rational and critical thinking in the students. To develop the ability of independent thinking and decision making in the students.

(B) Important Points

- o Hunt is the main proponent of reflective level of teaching.
- o It is the highest level of teaching and includes both TILT and MIT Select Language
- o It is problem-centric approach of teaching.
- o It is the highest level of teaching and includes both ULT and MLT.
- o It is problem-centric approach of teaching.
- The students are assumed to adopt some sort of research approach to solve the problem.
- Classroom environment is to be sufficiently 'open and independent. The learners are selfmotivated (intrinsic) and active.
- The aim is to develop the reflective power of learners so that they can solve problems of their lives by reasoning, logic, and imagination, and lead successful and happy lives.
- The pupil occupies the primary place and teacher assumes the secondary place.
- o Essay-type test is used for evaluation. Attitude, belief and involvement are also evaluated.

(C) Merits or Advantages of Reflective Level of Teaching (RLT)

- o It is the most thoughtful mode of operation.
- Learner-centered approach
- Development of problem-solving ability
- Useful for gifted children.
- Provides maximum flexibility
- Self-motivation
- Development of creativity

(D) Demerits of Reflective Level of Teaching

- o It is not suitable for lower classes
- It is a time-consuming process.
- It is not applicable for dull students.
- There is an excess burden to the teach

(E) Reflective level (RLT) - or Introspective level

Problem centered - Teaches how one can solve - real life problems.



- Based on ULT + MLT (Student Centric)
- Open and independent in class environment.
- Attitude + belief + involvement is evaluated mostly using essay type.
- Ex. In SSC and other exams, we have to write an essay. This is because examiner wants to know our mentality, thinking level.
- Highest level- Thinking deeply about something
- o Role of teacher is Democratic

Effective Teaching Practices

Maxims of Teaching

A maxim is a ground rule or fundamental principle that has evolved over a period of time. It is a guide for future action or behavior. Teaching has also its own set of maxims, which have been discussed below create.

- 1. <u>From simple to complex</u> The teacher should Start with simple things and ideas and these can be done with day-to-day examples, if possible. Then gradually, a teacher can move towards concepts and technical terms. This creates interest among learners to acquire new knowledge. This is helpful in better retention.
- **2.** <u>From known to unknown</u> This is related to first maxim. Retention is always better if new knowledge can be linked with the known one.
- **3.** The students should be imparted knowledge about the present and then they can understand the past and the future better
- **4.** <u>From concrete to abstract call</u> and the mental development of students happen better with the concrete objects, they become familiar with and define micro words for them at a later stage.
- **5.** <u>From particular to general</u> The students should be presented with examples first and then general laws and their derivations can be explained to them. The experiments and demonstrations serve this purpose.
- **6.** <u>From whole to part in fact school be changed</u> Gestalt psychologists have proved that we first see the whole object and then its parts. For example, we first perceive the tree and then its trunk, branches, leaves etc. Thus, the introduction or overview of the topics is important
- **7.** <u>From indefinite to definite nothing</u> The teacher should help to transform indefinite knowledge into definite one and aim to clarify the doubts of students
- **8.** <u>From psychological to logical</u> During initial stages, psychological order is more important, whereas for grown up learner's logical order is emphasized more.
- 9. From analyses to synthesis Initially the students have little or vogue knowledge about the topics follow stop analyses means dividing problems into its constituent parts, and then these are studied very nice synthesis means to understand by connecting the knowledge acquired through analyzing the parts full stop a teacher should use analytics very nice synthesis means to understand by connecting the knowledge acquired through analyzing the parts. A teacher should use analytic-synthetic method
- 10. Follow nature It means to regulate the education of a pupil according to his nature
- **11.** <u>Training of senses</u> The types of sensors, like side, hearing Kumar test Kumar smell and touch are gateways to knowledge. It is better if all are maximum of these sensors can be applied in teaching.
- **12.** Encouragement to self-study Dalton's system is based on self-study



Bloom's Taxonomy (2019, 20, 21, 22)

• Bloom's Taxonomy is a categorization that defines different levels of intelligence including thinking learning, and understanding. Institutes make use of bloom's taxonomy to improve curriculum assessments, and teaching methods.

 Originally introduced in 1956, Bloom's taxonomy was a concept created by Mr. Benjamin Bloom along with Mr. Edward First, Mr. Max Englehart, Mr. David Krathwohl and Mr. Walter Hill. The concept or rather the educational model has categorized the levels of education as well as the skills that need to be imparted whenever a teacher teaches something.

Three Domains of Bloom's Taxonomy

1. Cognitive Domain

In the cognitive domain of Bloom's taxonomy, the major focus is given to the development of knowledge and intellectual skills. As per the complexity, there are six sub-heads of the cognitive domain.

- (i) Knowledge Gaining knowledge about facts, figures, and basic concepts.
- (ii) Comprehension Understanding the facts gathered during the knowledge stage.
- (iii) Application Applying the knowledge and the concepts in the best way possible.
- (iv) Analysis Analyzing the application, making conclusions, and understanding relationships between the different aspects of the application.
- (v) Evaluation Judging and defending conclusions about the information generated from the application.
- (vi) Creation Creating new results by planning, designing, developing the actual application.

2. Affective Domain 2005

This domain of Bloom's taxonomy deals with the feelings and the emotions associated with the passage. It contains complex ideas and conscience, phenomena, and characters. Thus, it deals with Attitude, motivation, willingness to participate, valuing what is being learned and ultimately incorporating the values of discipline into a way of life. It asks for better student participation. The main aspects of the affective domain are as follows -

- Reception Willingness to listen.
- **Response** Willingness to participate.
- Values Willingness to participate willingness to be involved.
- Organization Willingness to be involved willingness to be an advocate of an idea.
- Characterization Willingness to change one's behavior or way of life.

3. Psychomotor Domain

The psychomotor domain of bloom's taxonomy deals with coordination, sensory organ movement, and the physical movement of the body of a student. Basically, it deals with the acquisition of technical skills. A great practice is required to be good at these skills. The physical act of driving, playing the keyboard, guitar, are major examples of the psychomotor domain.



Five levels of psychomotor Domain

- **1. Imitation** It includes demonstration of a skill by a skilled person and the learners try to follow the same.
- **2. Manipulation** A learner tries to experiment various aspects, like manipulating machinery, equipment etc.
- **3. Precision** Accuracy in performing various acts increases with practice.
- 4. Articulation Achieving a desired level of efficiency and effectiveness through practice.
- **5. Naturalization** Skill is internalized and an individual is able to adapt, modify or design new techniques, methods or procedures according to the requirements of a situation.

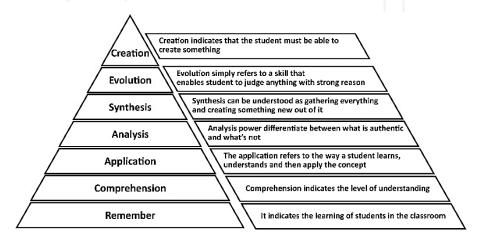
Applications of Bloom's Taxonomy

- Finding meanings of words, phrases, idioms that are used in the paragraph using application and understanding.
- Concluding the passage and its points using evaluation and analysis.
- Gaining details and remembering them using understanding and remembering.
- Understanding the author's tone by using the concept of evaluation.
- Give a proper title for the passage using the concept of evaluation and understanding.

Gagne's Nine Events of Instruction

- Robert Gagne was an educational psychologist who created a nine-step process called the events of instruction. Gagne's nine events of instruction model helps trainers, educators, and instructional designers
- structure their training sessions. The model is a systematic process that helps them develop strategies and create activities for instructional classes.
- The nine events provide a framework for an effective learning process. Each step addresses a form of communication that supports the learning process.

Bloom's Taxonomy



Gagne's Nine Events of Instruction

- Save innings Attention
- Informing Learners of the Objective
- Stimulating Recall of Prior Learning
- Presenting the Stimulus



- Providing Learning Guidance
- Eliciting Performance
- Providing Feedback
- Assessing Performance
- Enhancing Retention and Transfer

1. Gaining Attention (Reception)

Begin the learning session by gaining the attention of the learners. Ensure the learners are motivated to learn and participate in activities by presenting a stimulus to gain their attention. This can be accomplished by presenting the learners with an introductory activity that engages the learner.

2. Informing Learners of the Objective (Expectancy)

After gaining their attention, inform the learners of the learning objectives to help them understand what they will be learning during the session. State what the learners will be able to accomplish during the session and how they will be able to use the knowledge in the future. This allows the learners to organize their thoughts on what they will learn and help place them in the proper mind set.

3. Stimulating Recall of Prior Learning (Retrieval)

Help the learners make sense of new information by relating it to something they already know or something they have already experienced. To accomplish this present the learner with an experience or cue that stimulates their prior knowledge. Make connections between what they are learning, and their previous learning. When people learn something new, it is best to correlate the new information with related information or topics they have learned in the past.

4. Presenting the Stimulus (Selective Perception)

Present the learner with the new information using learning strategies to provide effective and efficient instruction. Organize and chunk content in a meaningful way. Provide explanations after demonstrations.

5. Providing Learning Guidance (Semantic Encoding)

Offer the learner guidance by providing coaching on how to learn the skill. Give examples and advise of strategies to aid them in the learning content and of resources available to them. Also, provide guidance using cues, hints, and/or prompts to help them understand and remember what they are learning.

6. Eliciting Performance (Responding)

Let the learner do something with the newly acquired behavior, skills, or knowledge. Provide them with practice activities to activate the learning process. This activity allows the learner to internalize the new information (skills and knowledge) and to ensure correct understanding and application of the knowledge/concepts.

7. Providing Feedback (Reinforcement)

After the learner attempts to demonstrate their knowledge, provide immediate feedback of learner's performance to assess and facilitate learning. This is also a good time to reinforce any important points.

8. Assessing Performance (Retrieval)

In order to evaluate the effectiveness of the instructional events, administer a test the learner to determine if the expected learning outcomes have been achieved. Performance should be based on previously stated objectives.



9. Enhancing Retention and Transfer (Generalization)

Give the learner resources that enhance retention and transfer of knowledge so that they are able to internalize the new knowledge and enhance his or her expertise. Repeated practice with effective feedback is the best way to ensure that people retain information and use it effectively.





CHAPTER - 2

Learner's Characteristics

(2012, 16, 17, 18, 19)

- Learning is strongly based on intellectual level, cognitive ability, perception, personality & attitude of a learner.
- Learners are bound to get influenced by social arena, cultural habits & willingness of person to adopt change.



Can be identified by collecting info based on, their cognitive, academic, emotional & social

Characteristics (4 heads of learners)

- 1. Related to memory, mental pressure a problem solving etc.
- 2. Emotional include mood swings, self-consciousness etc.
- **3.** Personal age, gender, language, maturation etc.

Categories of Learner's Characteristics

- Social & personal quality.
- Growth & development.
- Willingness to learn.
- Interest & attitude of learner.
- Easily adjustment to change.
- internal motivation.
- Social- cultural background.

Characteristics of Adolescent learner

(2019, 2020)

Academic

- Demand the relevance in learning & what is being taught.
- Moving from concrete to abstract thinking.
- High achievement when challenged & engaged.
- Prefers active over passive learning experiences.
- Interest in interacting with peers during learning activities.

Emotional

- Mood swings that are unpredictable.
- High energy & is se ye bad activity me bhi involve ho jate hai.
- Needing to release energy with sudden outburst of activity. eg game playing ese hi kudna ete jis se inki energy use hogi Desire to become independent & search you adult identity & acceptance.

Social

- Modeling behavior after that of older students, parents' other adults etc.
- E.g. we try to copy the behavior of people around us.
- At this age, we by to make a social position (image)
- Adolescent learners love to make groups of with people having some big or mentality.
- Adolescent always feel frightened by MSE & always thinks what will happen next.
- linking gads & being interested in popular culture.
- **E.g.** Bollywood of Hollywood attacks us at this age.



Emotional 2017, 2018, 2019,

- Sell consciousness & being sensitive to personal criticism.
- Concern about physical growth & maturity.
- Belief that their personal problems, feelings & experiences are unique to themselves.
- Overreacting to ridicule embarrassment & rejection.
- An intense curiosity & wide range of intellectual pursuit that are for long term. (cognitive)
- We have to control & direct adolescent learners & this is done by family and teachers.

Cognitive

- An understanding of complexity of moral issues E.g. A very famous moral issue is that we say "If a cat cross over your path, then you should stop you're a while". Every adolescent learner focusses on such things & started questioning.
- Interested in democracy.
- Impatient with the pace of change in society, family etc. They want to get things changed in a fast way & according to them, all these changes are very easy to accept.
- Ability to be self-reflective that means they implement everything.

Characteristics of Adult Learners Academic

(2018, 2020)

Academic

- Require big picture view of what they are learning. They need to know how small parts fit into larger landscape.
 - Adult Learners know how to get big things if we start preparing today.
- Are result oriented. They have specific expectations for what they will get out of learning & if they know that goal then definitely, they will give up.

Social

- Prefer a learning community with whom they can interact & discuss questions & issues.
- Many learners have family issues & responsibilities, it affects their learning.
- Want to be treated with respect.
- There is no need to control & direct adult learners.

Academic

- If not, they will give up like this.
- Prefer practice rather than listening to lectures.

Cognitive

- Take responsibility for their own success in failure.
- Pre-self-motivated & ready to earn & are more intellectually stable.
- Are autonomous & self-directed.
- Want to apply new know ledge & skill immediately.

Emotional

- Prefer a sense of control & self-direction.
- They like options & Choice in their learning environment.
- May acquire psychomotor skills more slowly & have more - difficulties reading small font & images.
- Adults may year a subject, have anxiety or feel anger about forced changes in job responsibility.
- They like to gain competence in workplace skill as it boosts confidence & self-esteem.
- Adjustment to change Not easy.



Individual Differences

- Rate of development is not same for all individual.
- Learning is most effective when differences in learner's language, culture, social behavior are taken into a/c.
- ID is the weave rate of growth & development among individuals.
- Major Factors of Difference in Individuals
 - [Heredity & Environment] with the help of these two factors, it becomes easier for us to find individual differences.
- Heredity Types
 - Physical condition tells us about reacting time speed of action etc. Born handicapped (Deaf, no leg / arm etc.)

Aptitude & Special Talent

Talent in music, acting, science etc.

- Gender, e.g. males are aggressive, etc. Females are passive, sensitive etc.
- Age
- Temperament
 - **E.g.** 1 A is emotional in every situation & B is not so it may create difference in learning speed & other factors.
 - **E.g.** 2 Stability + maturity + negative and positive mentality i.e. person with negative thinking will not be able to cope up but person with the thinking learns fast. Somehow it is related to heredity.

Introversion

Extroversion

Eg. Calm personality

Eg. Loud, talkative person.

- Introversion like to work in peace, quite & with less contact of people.
- Extroversion enjoy interaction & always want to lead a group, like teamwork.
 - Effort Making Capacity It may be different in two individuals.
 E.g. person A makes an effort to learn driving but person B don't. so there results will be different.
 - **2.** Criminal Tendency If person has criminal background then you sure A's mind always work on a different path.

That why A's learning will be slow.

Environment Type

- 1. Family Background.
- 2. Community Background.
- 3. School Background.
 - Teacher should be sensitive to individual differences.
 - It is wrong to expect uniformity in students.
 - Not everyone has equal level of capabilities.

(CTM)

- All student cannot be benefited by particular method or instruction so a teacher should focus to change on his methods of teaching so that no student will suffer.
- A teacher must work to maximize the growth of each child.



Learner's Characteristics

(2018)

Learner's characteristics can be

- Psychological Personal related to demographic info like age, gender, language, status, background etc. skills, disability etc.
- Academic related to education like learning goals, prior knowledge, education type and level etc.
- Social/Emotional related to individual person in a group, eg place of individual in a group, social ability, self image, mood etc.
- Cognitive related to things as memory, mental prosodic and intellectual skills which determine, how a learner think, remember and solve problems in brain.
- Based on Human Behavior.
- Related to thoughts, feeling, idea, knowledge.
- Habit of Readiness, Exercise, Effect.
- Absence of anger and jealousy
- Slow beginning, gradual development.

