Teaching Aptitude

UGC NET Paper-I: Teaching Aptitude Study Notes

Teaching Aptitude is an essential tool for the assessment of teachers. It is a mode of evaluating the performance of individuals who wish to pursue the profession of teaching. This method refers to the necessary qualities required to become a successful teacher.

1. Concept of Teaching

Teaching can be defined as an activity that causes the child to learn and acquire the desired knowledge and skills and also the desired ways of living in society. Teaching is a process which can be carried out formally or informally. Informal teaching takes place within the family while formal teaching takes place outside the family. Formal teaching should be carried out by experienced faculty, teachers, editors etc.

2. Characteristics of Teaching

Below, we have listed down the crucial characteristics of teaching:

- Teaching takes place in a dynamic environment.

- Teaching is a cognitive activity.
- Teaching includes a lengthy period of study and training.
- It has a high degree of autonomy.
- It is a continuous profession.
- It is an art as well as science.
- It is closely related to education, learning, and training.
- It is a type of social service and has different levels of teaching.

3. Factors affecting Teaching

Following are the factors that affect the process of teaching:

- Educational qualification of the teachers.
- Adequate skills are required for a teacher to carry his work effectively.
- Experience teachers better handle the student's queries and classroom management.
- The classroom environment should support the teaching-learning environment and the teacher plays a vital role in handling this activity.

4. Methods of teaching

Here are some important teaching methods:

(a). Teacher-centred strategy

Following are the teacher-centred strategies:

- Lecture Method: Lecture Method is a process of teaching in which the teacher tells his/her students about the planned facts. The students listen and take notes. The success of this method depends on the ability of the teacher to speak fluently in a good tone and style.
- Team Teaching: Team teaching includes a batch of instructors which help a group of students regularly and cooperative them to learn the different concepts. Teachers together prepare their course, frame the syllabus, prepare the lesson plans, teach, guide and evaluate the results of the

students. They share student's analysis and also suggest students to decide which approach is better.

- TV or Video Presentation: It is an improved method in which it involves radio or audio presentation, and it can virtually bring the whole world inside the classroom. Screening of video presentation is followed by the discussion of a task.

(b). Mixed strategy

Following are the methods of this strategy:

- Group Discussion: Discussion methods set a platform for the open-ended, collaborative exchange of ideas among the teacher and students with the motive to increase the student's thinking, learning, problem-solving, and understanding. Participants present their unique points of view, listen to other's ideas and then present their ideas in a better way as to increase their knowledge, understanding, or interpretation of the matter or topic.
- Brainstorming: It is group creativity in which efforts are made to find a relevant conclusion or solution for a particular problem by listing out different ideas or suggestions spontaneously contributed by its members.
- Project method: Project method is one of the advanced methods of teaching in which the student's point of view is given importance in the design of the curriculum and content of studies. This method is based on the philosophy of Pragmatism and the principle of 'Learning by doing'.

Some other methods of small group teaching are the role-playing method, simulation, demonstration method, tutorial etc.

(c). Student-centred strategy

The following strategies cover the following method of teachings:

- Assignments: An assignment is a teaching method which can be done both individually or in the group, that assist the students to acquire individual academic competences. No contact hours are offered for

completion of the assignment, and the students have to carry out the task in their own time.

- Case study: The case method is the most powerful student-centred teaching strategy that imparts students with critical thinking, communication, and interpersonal skills. Working in different case studies helps the students to research and evaluate multiple sources of data, fostering information literacy.
- Programmed instruction: It is a research-based system that helps the students to learn in a graded sequence of controlled steps. It was discovered by Sydney L. Pressey.
- Computer-assisted learning: In this method, the computer is used to present the instructional material and monitor the learning that takes place.
- Heuristic method: This method was discovered by Dr H. E. Armstrong. It is an approach to problem-solving, learning, or discovery that employs a practical method but instead sufficient for reaching an immediate goal.

(d). Teaching Aids

Teaching aids are the aids used by the facilitator or a teacher in the classroom to make his/her teaching effective and easy so that the students can be understood easily. There are different types of teaching aids:

- Audio Aids: These aids find the usage of the sense of hearing for example radio, tape recorders, language laboratories etc.
- Visual Aids: These aids use the sense of visual only. For example chalkboards, soft boards, maps, pictures, flashcards, maps etc.
- Audio-Visual Aids: This makes use of both sense of hearing and vision. For example television, films, computers,film-strips etc.

UGC NET: Notes on Characteristics of Teaching

An interest in teaching, implementing teaching principles and methods is commonly known as teaching aptitude. It is all about evaluating candidates who want to enter the teaching profession on the basis of their knowledge and skills.

1. The concept of Teaching:

Teaching involves the purposeful direction and management of the learning process. It is a planned activity or a process in which the learner, teacher, and other variables are planned in a particular order to attain some predetermined goals. Teaching can be both formal and informal.

- Informal teaching is carried out within a family or in a community, during initial years of life, for example, homeschooling.
- Formal teaching is carried out by paid professions called teachers or faculty.

2. Basic Teaching Models:

Generally, there are two models of teaching. These are:

(a). Instructor-centered Teaching

- When an instructor or a facilitator is actively involved in teaching while the learners are in a passive, receptive mode listening as the instructor or a facilitator teaches is known as instructor-centered Teaching.
- In this teaching, an instructor is fully responsible for what is taught and how it is learned.
- The learner is fully dependent upon the instructor for all learning. Here the instructor is responsible for the process of evaluation.

(b). Learner-centered Teaching

- When a student or a learner is more emphasized in a classroom than others is known as learner-centered teaching.
- It also involves each student's interests, abilities, and learning styles, placing the learning instructors for individuals rather than for the class.
- It includes self-evaluation.

3. Nature or Characteristic Features of Teaching:

The main characteristic features of teaching are given below:

1. It tends towards self-organization.

2. It involves different levels of teaching.
3. It is a continuous process.
4. It is related to education, learning, instruction, and training.
5. It generally takes place in a dynamic environment.

4. Different Levels of Teaching

Teaching takes place at three levels progressively- memory level of teaching, understanding level of teaching, and reflective level of teaching

(a). Memory Level of Teaching (MLT): The first level of teaching is a Memory Level of Teaching. This level is concerned with memory or the mental ability that exists in all living beings and is considered as the lowest level of teaching.

- Herbart is the main proponent of this level.
- It induces the habit of rote memorization of facts and bits of information.
- Here the teaching-learning process is basically 'Stimulus-Response'(S-R) here.
- Here the evaluation system mainly includes oral, written and essay-type examination.

(b). Understanding Level of Teaching (ULT): The second and thoughtful level of teaching is an understanding level of teaching. This level is concerned with understanding something i.e., to perceive the meaning, grasp the idea and comprehend the meaning.

- Morrison is the main proponent of this level.
- It goes beyond just memorizing facts as it is memory plus insight.
- Here, the instructor and the learner both play an active role.
- Here the evaluation system includes both objective and essay-type examination.

(c). Reflective Level of Teaching (RLT): The third and highest level of teaching is a memory level of teaching. This level is concerned with both MLT and ULT. Here

the teacher thinks over their teaching practices, analyzing how to teach and how the learning process can be changed or improved for better learning outcomes.

- Hunt is the main proponent of this level.
- In this approach, the learners are motivated and are active.
- Here the students occupy the primary place and the teacher assumes the secondary place.
- Here the evaluation system includes an essay-type examination.

5. Important Concepts related to Teaching

(a). Education: The process through which a learner has facilitated learning and acquired knowledge, beliefs, habits, values, and skills is said to be Education. It includes teaching, training, discussion, storytelling etc.

(b). Instruction: It is a main part of teaching. It includes the delivery of contents by the instructor. It doesn't play any role in the interaction between the teacher and the learner but it facilitates achievement of teaching.

(c). Learning: It involved both activities and experiences. It can be defined as a relative change in the behavior of an individual as a result of experience or practice.

(d). Training: The process of developing in oneself any skills and knowledge that relate to specific useful competencies is known as training. The main purpose of imparting training is to equip oneself with specific skills.

(e). Syllabus: An academic document that is used to communicate course information and defines responsibilities and expectation is said to the syllabus. It helps to supervise or control the course quality. It may be descriptive.

(f). Curriculum: It is defined as a course of study developed by school authorities.

(g). Indoctrination: It is the process of teaching a person or group to accept a set of beliefs uncritically.

Teaching: Teaching is an activity that influences a learner to learn and acquire desired knowledge and skills and also their desired ways of living in society. It is a process in which the learner, teacher and other variables are organized in a systematic way to attain some predetermined goals.

1. Models of teaching

a. Pedagogy model: In this method, the teacher, more or less, controls the material to be learned and the pace of learning while presenting the course content to the students. It is also called an instructor-centred approach. In this, the learner is dependent upon the instructor for all learning.

b. Andragogical model: In this model, the learner is mostly self-directed and is responsible for his or her own learning. In this method, the instructors facilitate the learning of participants and help them by offering opportunities to learn themselves and acquire new knowledge.

Question Time

Question No. 1. Which of the models is known as an instructor-centred approach?

Ans: Pedagogy model

Solution: In the Pedagogy model, the teacher, more or less, controls the material to be learned and the pace of learning while presenting the course content to the students. It is also called an instructor-centred approach.

2. Objectives of teaching

A good objective should be specific, outcome-based and measurable. The objectives of teaching and learning must integrate at the end of the instruction. The objectives of teaching are:

- To bring desired changes in students' attitude.
- To shape behaviour and conduct.
- Acquisition of knowledge.
- To improve the learning skills of students.
- Formation of belief.
- To become a social & efficient member of society.

<u>Question Time</u>

Question 2. Effective teaching is a function of:

(A) Teacher's satisfaction

(B) Teacher's honesty and commitment

(C) Teachers making students learn and understand

(D) Teacher's liking for professional excellence

Ans: C

Solution: Teacher's satisfaction, honesty and commitment are also essential elements but for effective teaching, the aim of every teacher is to make students learn and understand the concepts/topics.

According to A.P.J. Abdul Kalam, 'Teaching is a noble profession that shapes the character, calibre, and future of an individual. If people remember me as a good teacher, that will be the biggest honour to me'.

Teaching aptitude is evaluating candidates who want to enter the teaching profession based on their knowledge and skills.

Teaching is the process of flow of ideas, instructions, and knowledge from teacher to students.

Effective ways of Teaching

1. The teacher should start with simple ideas and move towards explaining complex things gradually.
2. The teacher should move from explaining known concepts towards unknown concepts because students would be able to relate and retain concepts easily.
3. The teacher should move from concrete (established facts) to abstract (existing in thought or as an idea but not having a physical or concrete existence) concepts while teaching.
4. For a better understanding of the teacher, Teacher should impart knowledge about the present, and then they can understand the past and the future better.
5. The teacher should teach from particular (by explaining facts) and move towards general laws and its derivatives.
6. The teacher should keep in mind the psychological needs of the student first and then move towards explaining concepts in a logical way.
7. The teacher should divide the topic into parts to make students understand better.
8. The teacher should help to transform the knowledge that is not clear into clear to clarify the doubts of students.
9. To better understand and clarify the students about any given topic, a teacher should divide the problem into its constituent parts (analysis) and move towards connecting those parts(synthesis).
10. A teacher should always encourage students to self-study.

Principles of Teaching

- Interest- for effective teaching, a teacher should be able to generate interest among students.
- Motivation- A Teacher should be able to motivate students to learn and understand new things.
- Revision- For a better understanding of acquired knowledge, a teacher must revise the concepts taught immediately.

- Individual differences- Teachers should teach in such a way that students of different backgrounds, attitudes, potential and abilities could get equal opportunities.
- Activity- For better retention and understanding, a teacher should involve students in learning through activity.
- Definite aim- To make learning focused and to make teaching in a planned way along with teaching methods and aim, a teacher must make definite aim before the class. This will make students more curious and interested in learning.
- Division- To make learning easier, the subject matter should be divided into units, and there should be links between the units.
- Democratic learning- If the behaviour of the teacher is authoritarian, students would not be able to communicate or participate in the class, and they will be just passive listeners. But, if the teacher is democratic, the students will ask questions, and class will be more interactive.
- Recreation- To make class humorous and to tackle the fatigue of lengthy class, recreational activities by teachers are necessary.

Important terms related to teaching

Curriculum

- The term curriculum refers to the lessons, and academic content taught in a school or in a specific course or program.
- It could also be defined as the sum total of all the experience that a student undergoes and the student must pass it.

Syllabus

- It is a plan showing the subjects or books to be studied in a particular course, especially a course that leads to an exam.
- It is descriptive in nature and tries to outline and summarize the topic that needs to cover.

Indoctrination

- The process of repeating an idea or belief to someone until they accept it without criticism or question.
- In Indoctrination, the beliefs and ideas are impressed upon others and can be included in teaching.

Instruction

- Instruction is part of teaching, and it involves the delivery of content by the teacher.
- It is one way where the teacher instructs students.

Education is the asset of a person, it builds character, enhances personality, makes the person rational, intelligent and responsive.

- The twenty-first century is described by Industrialization, globalization, urbanization has led to the emergence of multiculturalism. It is described as a century of stress and strain.
- Education prepares youngsters to understand and face the realities of education.
- It is viewed as an instrument of tolerance, developing cognitive qualities and understanding of people.
- In this context, the schools and the teachers have more responsibilities in moulding the character of the students. Thus, the role of the teacher in society is vital for its improvement.
- Studies have shown that among all the players affecting students like parents, community, peers and teachers, it is the teacher that plays a key role in student achievement.
- The quality of education depends on the quality of teachers, particularly in the initial stages of education when the pupils are at an early age, and especially in the rural areas.

Dimensions of Teachers' Work

- Facilitating learning to students.
- Evaluating the learning outcomes of students. Assessing them reporting the drawbacks.
- Engaging the students in Professional Learning
- Participating in making the curriculum and other programs.
- Initiatives in an Outcomes-focused Environment
- Forming Partnerships within the School Community

Characteristics of the Profession

- To equip with intellectual tendencies.
- To acquire opportunities for development for various kinds of skills and abilities.
- To generate the desire for service of society than for personal gain.
- To generate its own standards.
- To provide opportunities for regular and systematic promotion during the period of service.
- To possess a strong professional organization behind it.
- To acquire training for continuous improvement.

Effective teachers throughout their entire teaching career demonstrate the following professional attributes.

Collaborative

- Teachers demonstrate good interpersonal skills by creating opportunities to communicate and share ideas, knowledge and experience with others.
- Teachers seek assistance from colleagues and when offered any advice they are keen to act on it.
- Teachers encourage parents and students in the learning process.

Committed

- Teachers are active and dedicated to educating young people and they act in the best interests of students.
- Teachers inspire students by enjoying the challenges thrown at them.
- Teachers are devoted to the personal, educational, social, cultural and moral development of their students and aim to teach them how to be life-long learners and active members of society.

Effective Communicator

- Teachers have a presence that creates a positive influence on students" behaviour.
- They can articulate their ideas and thoughts whilst modifying their language according to the audience and context.

Ethical

- Teachers respect the rights of others by acting with impartiality and consistency.
- They have an understanding of the principles of social justice, demonstrate this by making just, and fair decisions.

Innovative

- Teachers are creative problem solvers who are willing to take risks in order to find new and enterprising solutions to educational issues and are inventive when developing educational programs.
- They provide learning experiences that engage student interest and enhance student learning.

Inclusive

- Teachers treat students with care and sensitivity by identifying and addressing their educational, physical, emotional, social and cultural needs.
- They are astute in recognising and responding to barriers that inhibit student outcomes.

Positive

- Teachers are constructive and supportive in their interaction with others.
- They show flexibility in an ever-changing work environment and are willing to consider critically and implement change.
- Teachers are advocates of their profession.

1. Levels of teaching

a. Memory level of Teaching

- It is the first stage of teaching.
- This level of teaching assists the learner to retain the topic and also to reproduce the material which the student learnt.
- Good memory includes rapidity in learning and recalling the stability of retention, and the ability to bring only desirable contents to the conscious level.
- Herbart is the main exponent of the memory level of teaching.

b. Understanding level of Teaching

- This level of teaching is known as 'memory plus insight', as it goes beyond just memorizing facts.
- It focuses on the mastery of the subject.
- It makes pupils understand the generalizations, principles and facts.
- It supports a lot of opportunities for the students to develop 'intellectual behaviour'.

- Morrison is the main endorser of the understanding level of teaching.

c. Reflective level of Teaching

- Reflective level of Teaching: It is considered as the highest level of teaching and it includes both Understanding Level of Teaching (ULT) and Memory Level of Teaching (MLT).
- It is a problem-centric approach to teaching.
- The aim of this teaching is to develop a reflective power of learning such that this teaching can assist to solve problems by reasoning, logic and imagination, and lead successful and happy lives.

Question Time

Q1. Study the following question. In this question, we have to match set-I with set-II.

Ans: D

Solution:

- Memory level is related to recalling information. It induces the habit of rote memorization of facts and bits of information.
- In understanding level, learners are able to identify examples of a given concept. In this level of teaching, the focus is on understanding each and every concept from the very basics.
- Creating level is related to generating new ideas. In this level of teaching, the focus is on creativity.
- In Analysing the level of teaching students have to learn a complete concept by isolating information into parts.

2. Characteristics of Teaching

The features of teaching include the following points:

- Teaching is a system of actions that not only varies in form but also relates to the content and student's behaviour under the various (social, physical) conditions.
- Teaching is a professional activity that involves a teacher & student with an aim to develop a student's overall personality.
- Teaching can be analysed & assessed and provide genuine feedback for further improvement in a student's overall personality.
- It is an interactive process that is carried with process & objectives. Communication skills play an important role in the teaching field.
- Teaching is a specialized task and may be needed to attain a set of skills for the realization of certain objectives and aims.
- Teaching should be effective enough to engage the students.

Basic requirements of teaching:

1. All three variables of teaching. (Dependent variable, independent variable and intervening variables)
2. Professionalism is needed for teaching to take place.
3. A cohesive environment for the students should be there, so that teaching can be useful.
4. Teacher-student relationships should be healthy so that students can ask questions without hesitation.
5. Student's discipline is another basic requirement for effective teaching.

Question Time

Q2. Which of the following set of statements best describes the nature and objectives of teaching?

Indicate your answer by selecting from the code.

(a) Teaching and learning are integrally related.

(b) There is no difference between teaching and training.

(c) Concern of all teaching is to ensure some kind of transformation in students.

(d) All good teaching is formal in nature.

(e) A teacher is a senior person.

(f) Teaching is a social act whereas learning is a personal act.

Codes:

(1) (a), (b) and (d)

(2) (b), (c) and (e)

(3) (a), (c) and (f)

(4) (d), (e) and (f)

Ans: C

Solution: Teaching and learning are integrally related because the main aim of teaching is to ensure some learning and some kind of transformation in students. All good teaching can be formal or informal in nature. A teacher can be a senior or junior person, age does not matter in this profession. Teaching and training are not the same, teaching as a form of education, is more academic and knowledge-based while training is more practical and skills-based or job focused.

<u>Introduction:</u> Language is a medium through which one can express one's ideas, thoughts, feelings, and messages. The language teaching is somehow a difficult task as it is basically conditioned by the nature of the subjects. So, for making the teaching interesting, a teacher can take the help of teaching-learning materials. While selecting the teaching-learning materials, a teacher should ensure that the skills of reading, understanding, listening, and speaking can be developed.

Teaching-Learning Materials

Teaching-Learning Materials: The aids used by the teacher or facilitator in the classroom to make his teaching understandable and effective are known as the teaching-learning materials or teaching aids. It can be big or small and can be bought or made easily by both the teacher or students. For example, blackboard, map, chart, globe, tape recorder etc. Teachers should use teaching-learning materials in an appropriate way. It not only helps students to enhance their learning but also make their learning permanent. Before selecting the teaching aids, teachers should first think of their practical use and assess whether the aim of using aids i.e., the purpose of teaching can be achieved or not. The aids should be student-oriented and should be selected systematically to fulfill the purpose.

1. Characteristics of Teaching-Learning Materials

Some of the characteristics of teaching-learning materials are given below:

- Teaching aids can be found easily whether in a market or can be made by teachers or students.
- Teaching aids are easy to carry.
- Teaching aids should be simple and will fit into classroom situations.
- Teaching aids make lessons enjoyable and interesting for the students.
- These aids save time, energy and burden of a teacher.

2. Objectives of Teaching-Learning Materials

The objectives of using teaching-learning materials are given below:

- Teaching aids make every student an active participant in the classroom.
- Teaching aids help students to relate to what is being taught to real-life situations.
- Teaching aids provide reinforcement for better learning.

- They make the learning permanent among the students.
- They develop the perception of the students towards the content.

3. Types of Teaching-Learning Materials

Teaching-learning materials can be classified into three types i.e., audio aids, visual aids, and audio-visual aids.

(a). Audio Aids

Aids that facilitate learning by using the sense of hearing are known as audio aids. These aids help a teacher, especially in language teaching. For example, radio, tape recorder, audio cassette player, Linguaphone etc.

- Radio: With the help of radio, students can improve comprehension through listening. Also, they can correct their pronunciation drill.
- Tape recorder: By recorder, students can record their voice and can correct their mistakes by listening to their voice. It helps the students to correct their speech and can also improve their reading skills.
- Linguaphone: It provides self-study language courses. students can learn proper speech patterns.
- Language Laboratory: It is an audio or audio-visual installation used as an aid in modern language teaching.

(b). Visual Aids

Aids that facilitate learning by using visual organs are known as visual aids. These aids help in the attaining of Bloom's teaching objective i.e., cognitive, affective and psychomotor. For example, radio, tape recorder, audio cassette player, Linguaphone etc. Some examples of visual aids are Blackboard, charts, maps, flannel board, flash cards, globe etc.

- Blackboard: It is used by the teachers in schools for writing on with chalk. A teacher can explain the difficult topic with the help of diagrams and figures on the blackboard.

- Charts: A chart contains a drawing that shows information in a simple way, often using lines and curves. Colorful charts provide interest towards the learning among the students.
- Maps: It is a diagrammatic representation of an area of land or sea showing physical features, cities, roads, etc.
- Flannel board: It is a board covered with flannel fabric, usually resting on an easel.
- Flashcards: It is a card containing a small amount of information, held up for pupils to see, as an aid to learning.

(c). Audio-Visual Aids

The aids that engage in both the sense organs and visual organs of the students are known as audio-visual aids. These aids help in the attaining of Bloom's teaching objective i.e., cognitive, affective and psychomotor. For example, the LCD project, Film projector, TV, Computer, VCD player, Virtual Classroom, Multimedia etc.

- Television: It helps the students in understanding concepts, enrich vocabulary and pronunciation by providing some educational programmes, quizzes and news bulletins etc.
- The Computer: A computer is a device that can be instructed to carry out sequences of arithmetic or logical operations automatically via computer programming. Students can save important topics on a computer for their reference.
- Filmstrip: It is a common form of still image instructional multimedia, once commonly used by educators in primary and secondary schools, overtaken at the end of the 1980s by newer and increasingly lower-cost full-motion videocassettes and later on by DVDs.
- Slide projector: It is a device that is used to view photographic slides using optical and mechanical methods. It contains an electric light bulb. focusing lenses. reflector and condensing lenses. a holder that holds the slide.

(d). Textbook: A textbook is an area in which the language material presented prescribed for teaching and learning. A good textbook not only teaches but it also

tests the knowledge of students. The content of the book should be very clear, a proper beginning is required to prepare the learners for the upcoming content and a perfect conclusion is required to assemble the entire learning.

- An advantage of using textbooks: Textbooks give a great contribution to the teaching-learning process both to the teachers and to learners. They offer a framework of guidance and orientation. However, apart from numerous advantages a single textbook frequently does not meet the diverse needs of the learners. Textbooks work as a fruitful resource for learners, it provides a guideline for students for the curriculum.
- Purposes: The textbook plays an important role in the teaching and learning process. Textbook adaptations at the activity level, unit level, and syllabus level are an integral part of the course-developing process which assists the teacher in meeting the learners' specific work-related needs.
- The strategy should be followed for book reading: Introducing the learners with the concept of the lessons before starting the reading, and reading the lessons in units is quite helpful to remember the facts about the chapter. Pictures, graphs, etc. are always considered to be the most attractive part of the textbooks, which makes the reading and understanding part quite influencing.

4. Selection of teaching-learning materials

Teaching-learning materials make the teaching-learning process easy and interesting. So while selecting the teaching-learning material, a teacher should take care of the following things:

- Relevant
- Suitable
- Practical
- Objective attainment
- Learner-centred
- Simple and educative.

Factors Affecting Teaching

'*Factors affecting teaching*' is an important topic to be covered under the Teaching Aptitude section for NET Paper 1 examination. More or less, one-two questions are asked from this topic every year. Although the topic seems quite simple and unassuming, there is always a great degree of confusion involved in choosing the correct answer when one is presented with multiple choice questions for such topics.

Subsequently, one really needs to be careful and precise in attempting sections such as teaching aptitude. We will try to summarize the notes for this topic concisely based on questions asked in previous years' questions.

To begin with, there are three variables that are the basic requirements of teaching viz. dependent variable, independent variable, and intervening variable. A student is considered to be a dependent variable, a teacher is an independent one and there needs to be a good interaction between these two variables for effective teaching. Factors that constitute this interaction include all the intervening variables. Some examples of the intervening variables are methods and techniques, teaching environment, the content of teaching, etc. It can be said that all the three variables and their interaction together affect teaching.

Let us discuss some of the critical factors one by one:

1. Credentials or Qualifications of the teacher

- Qualifications matter as much as the professional training. A teacher who has a higher degree apparently will have a better knowledge of the subject. Someone who has secured professional training like B.Ed., M.Ed., MPhil, PhD, etc. will be able to yield better learning outcomes in a student than someone who has not been professionally trained.

- A trained and more qualified teacher will help students to inculcate the attitude of discussion, questioning, investigation, inquiry, and critical thinking in them. His or her lessons are rich in content and have relevance. The trained teacher doesn't use a mechanical mode of instruction that is dull for the students.

Expected Question for UGC NET 2020

Q1. A trained teacher will help students to inculcate the attitude - Critical Reasoning

2. Teacher-student relationship

- It must be noted that the teacher-student relationship is not that of hierarchy alone.
- A good teacher always respects his or her students, is sensitive to their social, cultural and economic background, kindles their intellectual curiosities and quests, and helps them develop a good civic and moral sense.
- To get the content of knowledge across one's learners, a teacher must be able to connect with them. There should be a culture of dialogue for making teaching instruction interesting and engaging.
- A teacher who only relies on lecture methods fails to grab attention and appreciation from the learners. In such a scenario, teaching suffers significantly.

Expected Question for UGC NET 2020

Q2. A good teacher is always sensitive to their - social, cultural and economic background.

3. Methods of teaching used

- A good teacher must have a good hang on the varieties of methods that can be used for teaching.

- If teaching becomes monotonous, students can lose interest in classes or lectures.
- To keep it appealing, the teacher must use very creative methods. There are teacher-centred methods, student-centered methods, content-focused methods and interactive or participative methods.
- For effective teaching, more and more use of learner-centred methods should be made. In any chosen method, the teacher should not appear as an authority figure. He or she should be the facilitator and resource for teaching and learning.

Expected Question for UGC NET 2020

Q3. In a student-centred method, the teacher should not appear as - authority figure.

4. Classroom environment

- Classroom environment comprises both physical and social factors. Physical factors involve physical infrastructure such as furniture, the building of the institution, library facilities, laboratories, teaching aids, light, cleanliness, and so on. Social factors include the relationship that all the critical stakeholders have with each other such as the relationship between teachers and the management, student-teacher relationship, teacher-parent relationship, student-student relationship, etc.
- A teacher should have the capacity for conflict resolution. Clear and stable communication between these stakeholders is necessary. Such factors also affect the quality of teaching.

5. Skills of a Teacher

- Skills are an acquired set of abilities. Teaching is also affected by the kind of skills that a teacher has.
- The skills include good communication skills, interpersonal skills, soft skills, computer skills, so on and so forth.
- A teacher who has a flair for learning new and varied skills can maximize learning outcomes in various situations. Teachers should continuously

engage themselves in attending conferences and seminars to learn new skills.

6. Institutional Policies

- Whether one is a school teacher or a college teacher, administrative policies of the institution also affect the teaching process. A teacher may want to teach beyond classroom instruction but policies of the educational institutions can limit such motivation.
- Sometimes the adoption of a specific curriculum or teaching method by the institution can limit the scope of teacher's creativity and competence. They are made to stick to the prescribed content, curriculum and methods.

7. Rewards

- Teaching is a specialised skill, it is an art as well as science. Every so often, teachers are not remunerated well which affects the manner in which they teach students.
- A good salary or remuneration can be a great intrinsic motivation for teachers to maximize the learning outcomes.
- Institutions should regard teaching a great skill and should be able to offer competitive salaries to teachers as per their qualification, experience and performance in the industry.

To sum up, these are some of the factors that affect the teaching in a classroom.

Levels of teaching

Levels of teaching have been basically categorized in two, One is given by Bloom and another given by Briggs.

Bloom's Taxonomy

According to Bloom's taxonomy, there are three domains of learning.

1. Cognitive domain- it focuses on knowledge.
2. Psychomotor Domain- Focuses on skills.
3. Affective domain- Focuses on Attitude.

Cognitive domain

1. It comprises of six sub-categories, namely

- Knowledge- recalling information or contents.
- Comprehension- ability to grasp the meaning of a material.
- Application- converting abstract knowledge into practice.
- Analysis- breaking down a communication into its constituent parts.
- Synthesis- combining the constituent parts into whole
- Evaluation- Judging the value of methods and materials for particular purposes.

2. Knowledge, comprehension, and application involve low order thinking skills and the other three, analysis, synthesis, and evaluation, involve high order thinking skills.

3. Cognitive domain was revised by Lorin Anderson and David Krathwohl in 2001. The new version involves remembering, Understanding, Applying, Analysing, Evaluating, and creating.

Affective domain

1. It includes the following levels.

- Receiving- willingness to listen.
- Responding- willingness to participate.
- Valuing- willingness to be involved.
- Organizing- Willingness to be and advocate of an idea.
- Characterization- willingness to change one's behaviour or way of life.

2. The domain was proposed by Krathwohl.

3. It is concerned with feelings and emotions, which can be arranged as Receiving, responding, valuing, organization, and characterization.

Psychomotor domain

1. It involves the following different levels

- Imitation- learner tries to replicate in this.
- Manipulation- learner tries to experiment by manipulating.
- Precision- By practising accuracy is improved.
- Articulation- by practising desired level of effectiveness is achieved.
- Naturalization- according to requirement skill is internalized.

2. Also called Kinesthetic domain.

3. It relates to natural, autonomic responses or reflexes.

4. There are different models of psychomotor domain. Simpson has included perception, set, Guided response, Mechanism, complex overt response, mechanism, complex overt response, adaptation and organization.

5. Dave used imitation, manipulation, precision, articulation and naturalization.

6. Harrow talks about movements by using reflexes movements, fundamental movements, perceptual abilities, physical abilities, skilled movements, and non-discursive communication.

Gagne's nine levels of teaching

- It is also known as Gagne's Nine Conditions of learning, Gagne's nine events of instruction, or Gagne's taxonomy of learning.
- Robert Gagne in his book 'the condition of learning' identifies the following mental conditions essential for effective learning

1. Reception

Gain attention from students. Voice modulation, gestures, short introductory video, hand-outs, etc, can be used for this purpose.

2. Expectancy

Inform them about the objectives of what they are about to learn so that their interest will be developed.

3. Retrieval

It relates the new information with the prior knowledge.

4. Selective perception

Present the new information in an effective and easy-to-understand manner using different methods and aids depending on the needs and level of students.

5. Semantic encoding

Help students to learn and retain new information by use of examples, case studies, storytelling, etc.

6. Responding

At this stage, students can demonstrate what they have learnt through question-answer rounds, role playing, etc.

7. Reinforcements

Provide feedback to students on the basis of their responses and reinforce important points for their clearing doubts and helping in retaining new information.

8.Retrieval

Assess their performance through some tests.

9. Generalizations

Students should apply what they have learnt to new situations and conditions, then with practice they will be able to generalize it.

Evaluation

- Evaluation is a systematic process which helps teachers to understand the needs, interest, and potential of students.
- It helps in determining whether teaching has facilitated learning.
- It is a process of collecting, examining, and interpreting data on knowledge, skills and belief, and attitude of students for assessing the magnitude of learning.

Characteristics of Evaluation

- It helps in identifying the weak areas of students.
- Teacher changes his/her method according to the needs of the student after evaluation.
- It is carried out in a planned and systematic way throughout the academic period.
- It is a continuous process where the evaluation of students takes place continuously.
- It is a comprehensive and holistic process where the all-round personality of a student is evaluated.
- Diverse evaluating methods are used for testing the students.
- Personal bias of the teacher should not be there in evaluating a student. It should be as objective as possible.

Function of Evaluation

- It makes students work hard.
- It helps in revision of curriculum in a short period of time.
- Students growth takes place after identifying weak areas.

- Teachers give feedback to students to improve their weak areas.
- Parents are given the progress report.
- Certification and awards are presented on the basis of evaluation.
- Job placement takes place on the basis of evaluation.

Techniques of Evaluation

1. Quantitative technique

- This examination is based on pen and paper.
- Written examination is supplemented with oral examination to test communication skills, reading abilities, and pronunciation.
- To test experimental learning practical examination is held.

2. Qualitative technique

- Students are observed and interviewed to identify their behaviour and record it.
- To identify problems students checklist technique is used. It is an instrument that is used for collecting and recording evidence regarding significant behaviour of students.

Types of Evaluation

1. Placement Evaluation

- Entrance Examination is conducted to identify if the student is suitable for the course.
- This process is used to check the aptitude of the candidate before the beginning of course.
- It checks the prerequisite knowledge of the candidate.
- This technique of evaluation is conducted before the beginning of course.

2. Formative Evaluation

- This form of evaluation takes place while the programme is running.

- This can be in the form of class test,quiz, pre-board exams, chapter-test, monthly-test, etc.
- This form of evaluation provides teachers feedback regarding the effectiveness of teaching.
- It reinforces learning among students. This is also called internal evaluation.

3. Diagnostic Evaluation

- Formative evaluation identifies the problem, whereas diagnostic identifies the causes of such problems.
- It is much more comprehensive than formative evaluation.
- This form of evaluation takes place during the course.

4. Summative evaluation

- This form of evaluation takes place at the end of course.
- This evaluation judges the effectiveness of the programme at the end of course.
- This is graded in the form of final exams, board exams, etc.
- Degree or certification is awarded at the end of summative evaluation.
- The Teacher's task of teaching gets complete with summative evaluation.

Choice-based credit system

- UGC has initiated several measures to bring equity, efficiency and excellence in this Higher Education System of the country.
- CBCS provides a choice for students to select from the prescribed course(core, elective or minor or soft skill course).
- Core course- this is compulsory for students as a core requirement to complete the course.
- Elective Course- it can be chosen from a pool of papers. It may be supportive to the discipline of study.
- Foundation course- this course is based upon the content that leads to knowledge enhancement.

- UGC has recommended a 10-point grading system with the following letter grades as given below:

Letter Grade	Grade points
O (outstanding)	10
A+ (excellent)	9
A (very good)	8
B+ (Good)	7
B (Above average)	6
C (Average)	5
P (Pass)	4
F (Fail)	0
Ab (Absent)	0

Advantages Of Choice Based Credit System (CBCS)

- Options are available to students to choose inter/multidisciplinary courses too.
- Teacher guides students on the basis of the IQ level of the individual student; a teacher helps students to select courses.
- It promotes group work, research and community involvement.
- It gives prospects to the learner to earn certification through a walk-in/walk-out approach.
- Greater flexibility is provided to students in choice of courses.

- Students can choose courses at basic or advanced level.
- It helps students to acquire job oriented skills.
- Students make progress at their own speed.
- It helps highly motivated students to gain extra credits.

Evaluation:

Education is a changing process that requires it to be continuously evaluated. Evaluation is an element of education that is based upon the educational objectives and the learning experience. Evaluation is a systematic process of collecting, examining and interpreting information to determine the extent to which pupils are achieving instructional objectives.

Method of evaluation:

There are two methods of evaluation that is used in the teaching and learning evaluation process:

- Norm-Referenced Evaluation: It is a type of evaluation in which the performance of the students is measured by comparing the relation with a hypothetical average student.
- Criterion-Referenced evaluation: In the Criterion-Referenced test the performance of a student is measured against a predetermined learning standard. These tests are extensively used in higher education.

The need for Evaluation:

With the help of the evaluation process, learning takes place.

- Evaluation process ensures teachers effectiveness in learning by setting student learning objectives instead of what a teacher will do.
- Evaluation process helps in making the learner-centered environment in the higher environment.
- Evaluation process helps in creating a knowledge-centered environment.
- Evaluation in teaching creates the assessment centred environment in the higher.

- Evaluation process in teaching-learning creates a community-centred environment within higher education.

Types of Assessment:

Usually, three kinds of assessment are used in the teaching-learning process. They are:

1. Formative assessment: This assessment is one of the most powerful tools of assessment for improving the understanding and performance of the students over a short period of time. In this type of assessment, the teacher comes to know the result of the learners within a very short duration by conducting the written test, observing the behaviour of the students and providing quick feedback to the learners. With the help of quick feedback, learners change their behaviour and understanding. Teachers act as the coach here and it is an informal process.

2. Portfolio assessment: This assessment takes place occasionally over a long period of time. The project, written assignments, tests etc. are the tools of this assessment. In this assessment feedback to the learner is more formal and also provides opportunities for learners to re-demonstrate their understanding after the feedback has been understood and acted upon.

3. Summative assessment: This assessment can be done at the end of a year or term. Through this assessment, the teacher comes to know about the strength and weakness of the curriculum and instruction. The result of this assessment may take time to return to parents or students. Here feedback is very limited and provides no opportunity to improve it. The result of this assessment is used to compare the performance of a student with the standard or with a group of students.

Important paradigm in Assessment:

1. Assessment for learning: Assessment for learning focuses on where the learners are in learning, where they need to go and how best to get there. It occurs throughout the learning and sometimes it is also referred to as Formative Assessment.

2. Assessment of Learning: This assessment is also known as Summative Assessment. This assessment occurs when the teacher uses proof of students learning for determining student's achievement against goals or standards at the end of term or year.

3. Assessment as learning: In this assessment, a student assesses their own performance and monitors their own learning and also uses the number of strategies to decide what they know and what they can do and how they use assessment for new learning.

Teaching Models

Teaching models are important in behaviour modification. They help the individual to learn good habits, imbibe desirable attitudes, interest and other personality characteristics. A teacher, a leader or a screen hero may work as a model for a child and he may pick up the behavioural traits of the personality of that model.

Teaching models help to teach in the following ways:

- By creating a favourable environmental condition for carrying out the teaching.
- Achieving desirable teacher-pupil interaction while teaching.
- It helps in the construction of a curriculum or contents of a course.
- It helps in the selection of instructional tools for teaching the curriculum.
- It guides the teacher to select the best possible teaching techniques.
- It helps the teacher in developing strategies and methods for effective teaching.
- It helps in creating the proper teaching environment
- It helps in making resources of teaching to achieve the desired objective.

Characteristics of Teaching Models

- These are patterns on plans made in advance for the success of the teaching-learning process.
- They have specific objectives and goals and therefore differ from general teaching techniques and strategies.
- It provides clear and specific guidelines or blueprints before achieving a specific objective.
- Through this teaching-learning environment is controlled.
- It helps in making a proper teaching-learning environment
- Steps by step procedure are laid for the attainment of learning outcomes.
- As the engineer is helped in the construction of the building by blueprint, same way models of teaching help in teaching.
- It is crucial in saving the energy, time and efforts of the teacher and the learners by providing the best tools and resources.
- Models of teaching are known to serve three major functions in a given teaching-learning situation.

Fundamental Elements

- FOCUS- It is the central and main aspect of the teaching model
- SYNTAX- This term refers to the description of the model in the action.
- PRINCIPLES OF REACTION- Response of Teacher should be appropriate and selective.
- SOCIAL SYSTEM- Teacher has to deploy the different models in different circumstances.
- APPLICATION- Use of different models is different in different circumstances. Therefore, their application also differs. Some are meant for a short lesson, some for the large, some for the both.

Types of Teaching Models

1. INFORMATION PROCESSING MODELS

- It refers to the way learners process the information they receive from their surroundings.
- Some models of Teaching encourage creative thinking, hypothesis testing or concept formation or sense problems or employ verbal and non-verbal symbols.

2. SOCIAL INTERACTION MODELS

- It focuses on the importance of social relations and interactions.
- Social interaction acts as a mode of learning.
- This is a student-centred approach.

3. PERSONAL DEVELOPMENT MODELS

- It enhances self-esteem, self-efficacy, and understanding.
- Every learner is unique. This model takes that into account.
- It helps to stimulate creativity, self-expression and confidence.

4. BEHAVIOUR MODIFICATION MODELS

- To make students better citizens, it alters the behaviour of students.
- This model is based on achieving predetermined and observable goals and objectives.
- Strategies used in this are sensitization, instruction, teaching, training, etc.

Methods of teaching and learning

Methods of teaching should be followed according to the subject matter and tact of the teacher. There are four methods of teaching which present the subject matter:

Telling method: Telling method covers all the aspects of teaching which are delivered orally to the students during the teaching-learning process. This method covers lecture Method, Discussion Method, storytelling Method and so on.

Project Method: This method covers learning by doing aspects of the subject matter in the teaching-learning process. This method covers the project method, problem-solving method, textbook method, etc.

Visual Method: This method covers the seeing aspect of the subject matter in the teaching-learning process. It includes a demonstration method, supervised study method, etc.

Mental Method: This method covers the cognitive aspects of the subject matter. Inductive, deductive, analysis, synthesis methods are included in this method.

Strategies of teaching: Teaching strategy helps the students in learning the desired course of the content and these are the methods by which the objective of teaching is released in the classroom.

Types of Teaching strategies

Teaching strategies are of two types i.e., Autocratic teaching strategy and Democratic teaching strategy.

A) Autocratic Teaching Strategy:

This strategy uses traditional methods of teaching. In this method, the teacher has full control over teaching and students are not allowed to act freely. This strategy is of four types:

1. Storytelling method: Under this method teachers deliver the content in a story form to the students. This method increases the vocabulary of the student and enhances their vocabulary. This method is useful in teaching languages and social studies.

2. Lecture method: Lecture method is the oldest and one-way communication method of teaching and helpful in developing the cognitive and affective domains of the child. This method is suitable in introducing a new lesson and lays emphasis on presentation.

3. Demonstration method: This method is useful in teaching a practical subject where the content can be understood by only showing.

4. Tutorial Method: Under this method, a class is divided into groups according to the capacities of students. Each group is handled by different teachers. In this method absence of previous knowledge of students should be covered and every child should get the chance to express himself/herself individually. This method is a type of remedial teaching and can be suited in teaching natural science and mathematics subjects.

B) Democratic teaching strategy:

Under this strategy, a child is free to express their views in front of the teacher and maximum interaction between teachers takes place. Here the teacher works as a guide or instructor. It helps in the all-round development of teachers and develops the effective as well as the cognitive domain of students. Six types of methods are covered under this strategy:

1. Discussion Method: Under this method, an oral conversation about a topic takes place between students and teacher. Discussion method develops the thinking and communication power which results in the development of a higher level of the cognitive and affective domain. This method is suited to all subject teaching except maths, art, music, and dance.

2. Heuristic method: Under this method, a teacher raises a problem in front of the student and also guides him. And then students solve the problem after gaining knowledge through self-study, self-learning, through investigation and research.

3. Discovery method: under this method students find the solution to their problems from their own surrounding environment. He draws his own experience and prior knowledge in finding the solution to a problem. It is inquiry-based learning.

4. Project method: Under this method, a project related to real-life experiences is assigned to students by making a group. Students learn and solve real-life problems with each other's cooperation.

5. Role-playing Method: Under this method roles are assigned to students and students are allowed to play those roles. This technique is an excellent tool for engaging students and develops higher-order thinking in students.

6. Brain-storming: It is a creative method of teaching under which a number of ideas are generated for the solution of a specific problem. This method effectively uses brains to storm the problem.

Methods of teaching

'If a child can't learn the way the way we teach, we should teach the way they learn' – Ignacio Estrada

To make the learning efficient and effective and to attain the desired learning outcome, the teacher has a number of methods at his disposal to select from. These methods are as follows:

1. Large Group teaching methods

- Lectures
- Team teaching
- TV or Video presentation

2. Small group teaching methods

- Group discussion
- Seminar
- Panel discussion
- Brainstorming
- Project method
- Tutorials
- Simulation
- demonstration

3. Individualised teaching method

- Tutorials

- Assignments
- Project work
- Case study
- Programmed Instruction
- Computer-assisted learning
- Interactive video
- Open learning
- Personalised system of instruction
- Heuristic method

Large Group Method

1. Lecture method

- In situations with scarce resources or shortage of time, lecture methods are the only way.
- Before practising anything theoretical knowledge must be built, lecture method helps here.
- This method is economical as it can cover a large audience.
- It gives the flexibility of adapting the lecture according to time and equipment available
- Students become passive listeners so the teacher has to make extra effort to make it two-way communication.
- It is not suitable for developing mental skills.

2. Team teaching Method

- In this two or more teachers are involved in planning, executing, and evaluating the learning experiences of a group of students.
- This best faculty is shared by more students.
- But finding teachers with special competencies is a difficult task.
- More teachers are required so more time is required for planning and scheduling.

3. TV or video presentation

- This method can virtually bring the whole world inside a classroom

- Screening of video presentation is followed by a discussion or task.
- Important personalities sitting far away are brought to the classroom through video presentation
- This method gets further enhanced by teaching aids such as slides, models, specimens, etc.

Small Group teaching Methods

1. Group discussion

- it is a form of communication and interaction within a group around a topic, skill, issue or problem presented to the group.
- It could be planned, partly planned and unplanned.
- Critical thinking, free flow of ideas and opinions are its part.
- It enhances one's verbal and non-verbal skills.
- Domination by a few individuals on the basis of better communication is a possibility.
- Biases in the evaluation of trainees by instructor.

2. Seminar

- In this one or more trainees prepare a paper on a given topic, issue or a problem which is then presented before a group. Thereafter discussion and analysis follows.
- The main stage in the seminar is preparation of paper, presentation of paper, and discussion on it.
- In this presentation skills of trainees get enhanced and group leadership develops.
- But it is time consuming and can stress participants.

3. Panel Discussion

- It consists of a small group of six to eight persons.
- The discussion here is guided and informal.
- The leader must select those panel members only who can think and speak freely.
- It is more interesting to the audience than the single speaker.

- But bringing experts to a single platform can be difficult.
- Audience participation here is nil.

4. Brainstorming

- On a given topic a large number of ideas are produced quickly by a group.
- In this any one can input ideas at any time except that criticism of ideas is not allowed.
- Quantity of ideas is more important than quality.
- Brainstorming goes on for several rounds till all the ideas are exhausted.
- Best ideas are selected after evaluation.
- It encourages trainers to be creative and produce, think and explore ideas.
- But there is a possibility of some trainees being reluctant to participate.

5. Project Method

- This is individualised or a small group instruction.
- In this students explore and experience their environment.
- Emphasis is on experiential learning rather than rote learning and memorisation.
- The student will develop critical thinking and work in teams.
- But additional resources and continuous monitoring may be required.

6. Role playing

- It is used to help solve classroom interpersonal problems and to teach human-relation skills in the classroom.
- In this dramatisation of literary work, historical work and current events take place to facilitate subject matter learning.
- It is interactive and interesting and entails participation of every member of the group.
- But it requires a considerable amount of resources and real life situations are usually more complex.

7. Simulation

- This training is provided under conditions which are similar to actual conditions.
- For example- training of astronauts for Gangayan mission.
- They are economical and safety is specially taken care of.
- But high initial investment in machinery and equipment is required.

8. Demonstration Method

- In this things are learned by doing and learning from concrete to abstract.
- It is defined as a combination of verbal explanation coupled with a live display of using apparatus for presenting important facts, ideas, or processes.
- It entails audio-visual explanation.
- It is effective in explaining materials, objects, ideas and abstract topics.
- But only few get opportunities to participate in the experimental process.

1. Traditional Teaching methods

- In most parts of our country, traditional methods of teaching are prevalent.
- The teacher is the only source of knowledge there.
- The teacher explains the concepts using chalk and blackboard.
- Students are asked to write the content that is dictated by the teacher.
- All the focus here is to pass the examination.

Advantages of Traditional Teaching Methods

- It is not as expensive as a modern teaching method. Therefore, good for students living in rural areas.
- Teachers and students form a strong bond because of the interaction on a daily basis.
- Discipline can be maintained.
- Some subjects like Physics, chemistry and mathematics need explanations which can be understood through blackboard only.
- Technical knowledge is not needed.
- No harm to the eyes of a child, unlike modern teaching methods.

Traditional Method of Teaching

- The chalk and talk method.

- Teacher-centric classroom.
- Teachers are knowledge dispensers only.
- Strictly controlled and organized classroom.
- No problem solving and group learning sessions.
- The importance is given to clearing exams rather than grasping knowledge.
- Education is Homework based.
- Absence of activity to sharpen the minds of students.

2. Modern Teaching Methods

- In the 21st century, we have seen the introduction of Modern Teaching Methods and more in 2020 due to COVID-19.
- Students taught in a manner which is technology-driven.
- It requires creative and innovative minds.
- The new teaching method which we called the modern teaching method is more activity-based and centres the learner's mind which involves them entirely into the process of learning. In the modern teaching method, curriculum teaching and planning are done keeping the learner as the primary target.

Characteristics of Modern Teaching Methods

1. Learner-centered

- It focuses on learners during laboratory lectures or during classroom.
- The teacher acts only as a guide.
- In classroom interaction learners appear as dominators.

2. Task-Based or Activity-based

- Students are engaged to learn through tasks by the teacher.
- Students participate in the classroom through these interactive activities.

3. Resource-Based

- The teacher is resourceful here.
- Teachers collect and distribute study material to the students so that they understand the topic clearly.

- The resource can be collected from anywhere- from a school environment or other places.
- The learner can be the source to bring study material or resources from their end.

4. Interactive in Nature

- It is very interactive in nature.
- The teacher asks the students to form small groups to perform the learning tasks.
- Students gather knowledge from one another.
- Students work with each other and therefore develop a sense of cooperation.

5. Integrative in Nature

- The most important characteristics of modern teaching methods is it is integrative.
- Teachers link topics of one subject, e.g., social science topics like domestic violence, drug use, pollution, the safety of women, food distribution and crime etc to link to other issues.
- This makes the subject interesting and integrating.
- Students through this method gain knowledge of more topics.

Advantages of Modern Teaching

1. Cognitive thinking skills

- Spoon feeding techniques which are part of the traditional method of teaching are not part of the modern teaching system.
- The modern method of teaching develops cognitive thinking.
- Cognitive thinking is associated with the functioning of the brain. The ability to read, memorize, and learn are connected to the brain. It contributes to the development of IQ.

2. Bringing prefrontal cortex into life

- The modern teaching techniques, like said, focuses more on the core thinking abilities and hence activates the perfect mechanism of the prefrontal cortex.

- The functions of the prefrontal cortex are considered superior, and triggering them would be the best-explored advantage of these modern teaching techniques.

3. Exploring things

- For personal development exploring the things where the interest lies is important.
- It helps in self-learning.
- Modern teaching methods provoke the interests of students in exploring things.

4. Application based skills

- The traditional method of teachings had limitations with practical knowledge. The teacher here laid more emphasis on theoretical knowledge.
- The implementation of the modern teaching techniques automatically drives out the unnecessary need for the theoretical part, substituting it with the application based skills.

Study Notes on Modern Methods of Teaching

Collaborative Learning

- Generally, when students are asked to revise a topic or syllabus for examination, they revise in isolation at home.
- Now, schools are coming with collaborative learning.
- In this, the teacher forms a group of students where they debate on topics, solve their problems and clear their queries.
- This helps students in understanding the subject faster and developing social skills.
- Students help each other to achieve the desired results.
- This helps in developing the communication skills as well.

- Diverse students meet each other at a place and review each other's work.
- Students exchange ideas and learn to face healthy criticism.

Spaced Learning

- In this, teachers repeat a lesson multiple times until the students understand completely.
- The teacher repeats the lesson with two 10-minute breaks in between the lessons.
- The gap is given to refresh the mind by doing mindful techniques or physical activities which prepares them for the next session of the same lesson.
- The break given to students helps in inheriting the knowledge and creates a connection between lessons.
- It truly supports the proverb that a healthy mind resides in a healthy body.
- This form of learning also reduces obesity in children.
- It improves both mental and physical health of a student.

Flipped Classroom

- In this method of teaching, the teaching procedure takes place in a flipped manner.
- Here, the students study new content or material at home and practice the same at school.
- It is the reverse of providing content at school and asks students to rework on it or practice it at home.

- The students practice at home by searching online and watching video tutorials or work on the content usually shared by the teacher.
- They do not need to complete the homework at home. They complete it at school.
- In this, the student gets enough time to grasp the topic, unlike the school where they get less time to understand the topic.

Self-learning

- Curiosity deserves the learner to memorize the things that they miss in school or lessons that they forget in the classroom.
- Students get motivated to explore the subjects they are interested in.
- It makes the students self-dependent and gives them a deeper understanding of the content.

Gamification

- Teaching through games is one of the best teaching methods that has been in use under modern teaching ways.
- Its significance has mostly been seen in the elementary and preschool system.
- It motivated students of all ages.
- The teacher is responsible for planning and designing projects that are suitable for students.
- Attractive measures are incorporated to connect with the students to keep their interest alive.
- Teachers can organize online puzzles, quizzes and brain games.

Classroom Process & Methods of Teaching

Classroom: Meaning

A classroom consists of a group of students and a teacher in which the teaching process is carried on. Here the student learns from the teacher or can also say that a classroom is a learning area. Classrooms are found from preschools to universities. Here the learning takes place without any interruption by the external environment.

Objectives of classrooms:

Following are the objectives of the classroom:

1. Classroom environment develops a sense of inclusion among learners.
2. Classroom develops life skills among learners.
3. Classrooms help in the development of skills of social coexistence among learners.
4. Classrooms help in preparing responsible citizens for the future.

Classroom process includes the thinking, feelings, commitments, and actions of teachers and students within the classroom or learning situation as well as the interaction patterns and descriptions of the learning environment that result from those interactions.

Sub-categories of classroom process:

Classroom process can be divided into three basic subcategories:

Teacher Behavior:

It consists of all the behaviour a teacher would make in the classroom. They are:

1. Planning: Planning consists of all the activities a teacher might carry out to get ready to interact with the students in the classroom
2. Instruction: Instruction is the purposeful direction of the learning process. It guides students' learning.
3. Management: Management controls student behaviour through the following ways:
- Use of positive reinforcement

- Cues and corrective feedback
- Cooperative learning activities
- Higher-order questioning
- Use of advanced organizers

Student behaviour:

It includes all the actions a student would make in the classroom. They include a very important variable called Academic learning time. Academic Learning Time is the number of times students are successfully covering contents that will be tested subsequently.

Students behaviour consists of three separate variables. They are:

Content overlap: The percentage of content covered on the test, out of what was actually covered by students.

Engaged time: It is the number of time students are actively involved in the learning process.

Success: It is the extent of time in which students accurately complete the assignments they have been given

Other classroom factors:

Other classroom factors that affect learner achievement are as follows:

- Classroom atmosphere and morale.
- The opportunity is given to students to engage in leadership roles and so on.
- Teachers' classroom behaviour has a direct influence on the student's classroom behaviour.
- Classroom process variables are the most direct link to measure a student's achievement.

Teaching Methods or Techniques:

Some of the teaching methods related to the classroom process are:

1. Lecture Method: This teaching method is the oldest and one-way channel of communication of information. In this method, students only listen to the lecture delivered by the teacher.
2. Demonstration method: In the demonstration method, a teacher explains the topic by showing an example, proofs, experiments, etc.
3. Problem-solving Method: This is the scientific method of searching for information.
4. Inquiry method: According to this approach learners are given the opportunity to explore, inquire, and discover new learning.

Approaches to teaching:

The teaching approach is a set of concepts, beliefs or ideas about the nature of learning which is translated into the classroom. When a teacher has a long-term plan of action designed to achieve a particular goal it becomes his strategy. The following types of approaches are as follows:

- Learner-centred approach: Student-centered learning, also known as learner-centred education, broadly encompasses methods of teaching that shift the focus of instruction from the teacher to the student. This method considers learners as also a source of information.
- Teacher-Centered Approach: It is a teaching method where the teacher is actively involved in teaching while the learners are in a passive, receptive mode listening as the teacher teaches.
- Matter-centered Approach: When subject matter gains primacy over that of the learner, it is called Subject Matter Centered Approach.
- Teacher-Dominated Approach: In this method, the teacher is the sole dispenser of information.
- Interactive approach: In this method, students have given the opportunity to interact with the teacher and other students.
- Banking Approach: When the teacher deposits knowledge into the empty minds of students it is known as Banking approach.

- Integrated approach: Here, a teacher integrates or synthesizes his knowledge from different disciplines in his teaching or learners are too given such opportunity. This is the most suitable approach to teaching.
- Constructivist Approach: In this approach, students are given the opportunity to construct knowledge and meaning out for what they taught by connecting them to prior experience
- Disciplinal Approach: Here, the teacher limits himself to discussing lessons within the boundary of his subject.
- Collaborative approach: Here group work, teamwork, partnership, and group discussion are welcomed in the teaching process.
- Direct teaching: In this approach, a teacher directly tells or shows or demonstrates what is to be taught.
- Indirect approach: Here, the teacher facilitates the learning process by allowing the learner to be engaged in the learning process by allowing the learner to be engaged in the learning process within his guidance.
- Individualistic Approach: Here, a teacher wants the individual students to work by themselves in a classroom.

Meaning of Learning Activities:

During the teaching-learning process for engaging students in a task which has the capability to link them with the real world is called learning activities. Activities during the teaching-learning process are of two types:

Activities inside the classroom:

These are the activities which a teacher employs inside the classroom. They are:

- Verbal question: These are the questions taken up at the end of the topic or at the end of one section.
- Case study: In this learning is enabled by comparing and contrasting through concrete examples.
- Cooperative learning: This learning can be done in groups for solving a problem given by the teacher.
- Group processing: In this evaluation of team functioning can be done and also agreeing to change.

- Learning conversation: It demands active listening, skilled, open questioning and positive body language from a learner.
- Relating Theory to Practice and Vice- Versa: This will mostly be for subjects which involve conducting experiments in a laboratory or workshop.
- Modelling: In this learner is exposed to the subject content and the underpinning thinking, working under an expert's guidance

Activities Outside the classroom:

Learning Outside the Classroom is the use of places other than the classroom for teaching and learning purposes. These activities are:

- Field Trips
- Sports Events
- Activities related to Music and Drama
- Surveys

Discourse as a Method of Teaching:

Discourse is the language that teachers and students use to communicate with each other in the classroom. Discourse is an order of behaviour and the process of extending an idea into text. Discourse is a live language.

Discourse processes can be created from the text, but one needs perception and intuition in order to throw light at the movement that once existed.

Discourse covers three aspects of text interpretation. They are semantic, syntactic, pragmatic.

Semantic: It is related to its meaning in language or logic.

Syntactic: This aspect is made according to the syntax.

Pragmatic: It is based upon practical consideration rather than theoretical consideration

Study Notes on Types of Learners and Learning Disorders

Learners

- A learner is someone who is learning about a particular subject or how to do something.
- Learning can take place without teaching, but teaching cannot happen without some form of learning.
- Learners can learn even in the absence of the teacher, but a teacher is required for students.

Learners can be categorised as follows:

1. On the basis of personal attributes

- Includes demographic information of learners.
- Age, gender, maturity level, language, socio-economic status, cultural background, etc.
- Expectations and vocational aspirations.
- Special talents.
- Ability to work under various environmental conditions.

2. On the basis of learning styles

- This refers to how learners receive and process information.
- These could be Visual (Pictures, diagrams, and demonstrations), Auditory (words and sounds), Intuitive (Insights and hunches), actively (Physical engagement or discussion).

3. On the basis of social attributes

- It is based on the relation of a group or of an individual within the group.

- It is based Group structure, place of the individual within a group, sociability, self-image, mood, etc.

4. On the basis of listening skills

1. Active learning: In this students are actively or experimentally involved in the learning process.
2. Empathetic listening: It is a form of active listening in which you attempt to understand the other person. Learners go through stages such as acting, meaning, imagination, perspective-taking and feeling.
3. Evaluative listening or critical listening: In this type, the listener evaluates the accuracy, meaningfulness, and utility of the speaker's message.
4. Appreciative: Listening for enjoyment involves seeking situations involving relaxing, fun, or emotionally stimulating information.

5. On the basis Thinking styles

1. Reflective Thinking: It means taking the bigger picture and understanding all of its consequences. It means trying to understand why you did what you did, and why that's important.
2. Creative Thinking: It means creating and forming their own solutions and shortcuts.
3. Practical thinking: Always looking for factual information. Seeking the simplest and the most efficient way to do their work. This thinker is not satisfied until they know how to apply their new skills to their job or other interest.
4. Conceptual Thinking: Accepting new information only after seeing the big picture. Thinkers want to know how things work, not just the final outcome.

Characteristics of Good learners

1. Enjoys learning and faces the hardship that arises in journey.
2. Learn new things while finding answers to their questions.
3. Relate new knowledge with their existing knowledge.
4. Always find time for reading, analysing and evaluating the knowledge gathered.
5. Always persistent in gathering knowledge.
6. Solve real-life problems with their knowledge.

7. Free from jealousy, greed, anger and other negative emotions.
8. Always curious to learn.

Learning Disorder

- The signs of learning disabilities are recognised during the school days.
- Most often these include difficulties in reading and writing.
- The person with learning disabilities looks perfectly 'normal' and seems to be a very bright and intelligent person, yet may be unable to demonstrate the skills that are shown by his/her peers.
- A learning disability cannot be cured, it is a life-long challenge but with appropriate support and intervention, people with learning disabilities can achieve success in school, at work, in relationships, and in the community.

Types of Learning Disorders

1. Dyscalculia: Students suffering from this disorder have difficulty in understanding mathematics and numbers, arithmetical operations, signs, etc.

2. Dysgraphia: it is related to handwriting and leads to poor handwriting, inconsistent spacing, wrong spellings, etc.

3. Dyslexia: It is related to problems in reading like in recognising and understanding letters and words, low fluency, etc.

4. Dysphasia or Aphasia: It is related to the problem in understanding a spoken language marked by deficiency in generation of speech.

5. Non-Verbal: It is related to having trouble in interpreting non-verbal cues like facial expressions or body language and may have poor coordination.

6. Verbal: It affects an individual's understanding to express or communicate.

7. Attention deficit/ Hyperactivity disorder (ADHD): It is related to difficulty in staying focused and paying attention, controlling behaviour and hyperactivity.

Teaching Aids

- Teaching aids are the instruments or instructional methods used by teachers.
- They help in better learning, retention and recall, thinking and reasoning and personal growth and development.
- Students understand better and in less time with these mediums.
- Learning process becomes interesting with the help of teaching aids.

Benefits of Teaching aids

- Students retain the concept for a long period of time.
- Traditional method of teaching is monotonous, therefore teaching aids help to break this monotony.
- Teaching aids motivates students.
- Better learning takes place because it supplements the verbal instruction method of teaching.
- It provides variety to students, therefore keeps them interested in lectures.
- Teaching aids encourage students to participate in class.
- Experts sitting miles away from the actual classroom could be brought to class for teaching.

How is online method of teaching different from offline method of teaching

- In offline method teaching is restricted to four walls but in Online method, anyone from any part of the world could take part in class.
- Offline method of teaching is Teacher-centred but the online method is usually Learner- centred.
- Offline methods of teaching have fixed timing but online lectures could be accessed by students at their own convenience.
- Offline method is beneficial for students living in remote areas without electricity but for Online electricity and internet connectivity is must.
- Offline method has limited seating arrangements for students but in Online medium any number of students could watch lectures.

Audio Aids

- In these devices, teaching or message is only heard. It appeals to the hearing senses of students.
- Examples- podcast, radio sets, telephone, mobile, audio players, etc.
- Difference between Podcast and Radio podcast is available on the internet. Podcasts are also uploaded online for the user to listen to later.

Visual Aids

- In these devices , teaching or instructing take place through visual aids. It appeals to the eyes of students.
- Examples- slides, posters, flashcards, Mind-maps, posters, etc.

Audio-Visual Aids

- In these devices, Teaching or instruction can take place through both audio and visual medium simultaneously.
- Examples- Puppets, films, cartoons, drama or play, online videos, etc.

Projected Aids

- In these teaching aids projector is used for teaching.
- These arouse interests in students.
- Students also present their presentation or assignments using Projectors.
- Examples- Slides, filmstrip, silent films etc.

Slide

- It is one of the most popular Visual aids.
- Projector is used for projecting slides to the classroom.
- The projection can be made on a screen or on a white wall.
- It is a transparent-mounted picture that is projected by focusing light through it.
- Microsoft power point is the most common software used for preparing slides.
- Animations, pictures, charts, etc could be used to build the interest of students.

- Projected aids could be done through Handheld projector or Overhead projector.

Non-projected Aids

- In these visual aids teaching is done without projecting.
- This is an easier method of teaching, cheaper, no power supply required and easy to handle.
- This is only used for a small group of students.
- Example- Charts, Flash cards, graphs, etc.

Charts and graphs

- It doesn't require any software, and can be drawn manually.
- It is used to tabulate a large mass of information.
- It can make subjects interesting, and can be used for comparative studies.
- Different types of charts are- Bar charts, Pie chart, Tabular chart, Tree chart, Flow chart, Pictorial chart, Overlay chart, Pull chart, Striptease chart, Flip chart.

Flash cards

- They are small cards usually used to display important information.
- Only important points are written on flash cards.
- They are flashed to the audience one at a time in a sequence.
- They can be used for quizzes where the question is on one side and an answer is on the other side.

Mind Maps

- These can be drawn with hand as well with using the software.
- It boosts creativity and helps in memorisation of important points.
- This method was developed by Tony Buzan in 1960.

- It is like a diagram for representing tasks, words, concepts arranged around a central topic.
- Students externalise concepts and understand the connections between different ideas.

Display Boards

- This form of teaching facilitates step-by-step presentation of topics taught by the teacher.
- Presentation may be adjusted by keeping the interest of students.
- It helps in taking notes for students.
- More chances of knowledge retention in this form of teaching.
- Examples of Display Boards- Blackboard, White board, Bulletin board ,Magnetic board.

Factors influencing the selection of teaching aids

- Literate audiences understand print media, whereas less literate audiences understand pictures and symbols more.
- Online methods of teaching or projector methods are used for larger audiences.
- Radio and television mediums are used to disseminate more awareness.
- Complex subjects or difficult topics require audio-visual mode to make learning interesting and easy to understand.
- Teaching aids like the internet are helping in reaching a larger audience thereby reducing the initial cost of setup which used to be a hindrance before.
- Visual Teaching aids are proving appealing and attractive for students. It is keeping them engaged.

TEACHING SUPPORT SYSTEM: TRADITIONAL, MODERN AND ICT BASED

1. Meaning of Teaching Support System

- In the realm of the teaching-learning process, there is a system that teaches, trains, coaches, guides and instructs teachers on how to maximize academic achievement of students.

- This system of tools and resources is called a teaching support system. A teaching support system caters to the teachers with an ultimate goal to improve students' achievement.
- In other words, the teaching support system is the capacity building of teachers using resources and guides on '*how to teach*'.
- A good teaching support system provides teachers with a set of instructional strategies for the standards and skills that students are not proficient in. Along with that, it helps teachers acquire the knowledge and skills to deliver those strategies in the classroom.

2. Why do we need the Teaching Support System?

- In present times, life skills are more important than memorizing concepts and theories. This makes it very challenging for the teacher to approach his or her subject merely using traditional methods.
- Given this scenario, it is important for the teacher to go beyond traditional teaching styles and be more creative and engaging in terms of enhancing students' participation.
- Secondly, information is abundantly available over the internet which is accessible to teachers and learners alike. This somewhat reduces the role of teachers as the ultimate source of information, more so in case of middle and higher education. Now, the goal of teachers should also be to keep themselves updated with the trends of technology and information.

3. Teaching Support System- Traditional and Modern

(i) What are traditional teaching methods?

a. Meaning of Traditional Methods: Traditional teaching approach is 'back to the basics' methodology in teaching. It includes all the conventional methods of teaching that are used in the classroom for knowledge generation. In the field of education and epistemology, this can also be called the 'chalk and talk' method. Some of the features of traditional teaching methods are:

- It is a teacher-centred approach, which means that this method sees the teacher as having an indisputable authority over knowledge.
- It concentrates more on memorization and reinforcing techniques.
- This sees learners as passive recipients of the learning activity.
- The focus remains on syllabus completion and evaluation of learners through the traditional examination system.
- The teachers evaluate the learners but there is no benchmark for evaluating teachers.
- Usage of textbooks and blackboard is the norm.
- Class management is all about maintaining discipline.
- There is no emphasis on team-building, collaboration, and so on.
- This is usually lecture-based.

(i) Merits of traditional teaching methods:

- Lecture remains one of the most effective teaching methods when the group of learners is exceptionally huge.
- Traditional teaching methods are easy to use given any group of learners.
- They are economic in terms of money as well as time.
- The teacher has a lot of authority over how the content is delivered and the amount of creativity involved.

(ii) Demerits of traditional teaching methods:

- There is less involvement of learners.
- There is less emphasis on the understanding of concepts.
- Weak learners suffer the most as they don't feel motivated.
- Evaluation of learners based on traditional teaching methods can sometimes be faulty.
- There is less incentive among teachers for reflection.

(ii) What are the modern teaching methods?

a. Meaning of Modern Teaching Methods: Modern teaching methods are more learner-centred methods used in the classroom (such as peer-assisted learning, brainstorming, group discussion etc.). Modern teaching methods also include ICT enabled learning techniques through the use of computers, overhead projectors,

videos, documentaries, whiteboards, etc. ICT enabled learning also incorporates mobile and internet-based learning methods. Some of the features of modern teaching methods are:

- Modern teaching methods are student-friendly as they require their active participation.
- Modern teaching methods require good execution and definite goals.
- Modern teaching methods highly depend on information and communication technologies.
- They are collaborative and require initiative.
- Knowledge is constructed rather than delivered.
- Modern teaching methods have more scope for creativity, flexibility, and reliability.

(i) Merits of modern teaching methods:

- They are learner-centred techniques.
- More content can be covered in less time.
- Modern teaching methods are a fun and interactive way of learning.
- There is more scope for using audio-video teaching aids such as documentaries, YouTube videos, online lectures, MOOCs, educational games, educational mobile applications etc.
- It is not a mechanical way of teaching as students, as well as teachers, participate in knowledge construction.
- Modern teaching methods also help in self-evaluation.

(ii) Demerits of modern teaching methods:

- Since teaching becomes more dynamic, teachers need to learn and relearn new skills.
- There is too much reliance on technology which reduces the authority of teachers.
- It requires a huge investment of money, time and effort.

- Some modern teaching methods are exclusionary in nature.
- The teacher-student relationship suffers as there is less time to develop bonding with the students.

<u>(iii) Which teaching methods are better- Traditional or Modern?</u>

- With digital advancement, it rather appears that traditional teaching methods would become a passé. However, this is not entirely true. A teaching support system helps teachers to build their capacity where both the methods can be used in combination.
- While mobile learning and e-learning are the buzzwords, there is no doubt that they can completely replace traditional ways of teaching. For developing critical thinking, the attitude of reflection and inquiry, lecture and dialogue methods play a significant role. At the same time, to keep pace with the ever-changing world and knowledge about the world, ICTs have played a significant role.
- Teaching support system assists and guides teachers to use the best possible combination of methods to teach topics of relevance.
- With all the resources at hand, teachers should become learners sometimes. Likewise, learners should become the teachers sometimes by engaging in self-learning.

Teaching Competencies

Competencies are the skills and knowledge that enable a teacher to be successful.

To maximize student learning, teachers must have expertise in a wide-ranging array of competencies in an especially complex environment where hundreds of critical decisions are required each day.

An examination of the research on educational practices that make a difference shows that four classes of competencies yield the greatest results.

1. Instructional delivery
2. Classroom management
3. Formative assessment
4. Personal competencies (soft skills)

Instructional delivery

Research tells us what can be expected from a teacher employing instructional strategies and practices that are proven to lead to increased mastery of lessons.

Better learning happens in a dynamic setting in which teachers offer explicit active instruction than in situations in which teachers do not actively guide instruction and instead turn control over content and pace of instruction to students.

The following are hallmarks of an explicit approach for teachers.

1. Teacher selects the learning area to be taught.
2. Teacher sets criteria for success.
3. Teacher informs students of criteria ahead of the lesson.
4. Teacher demonstrates the student's successful use of the knowledge/skills through modelling.
5. Teacher evaluates student acquisition.
6. Teacher provides remedial opportunities for acquiring the knowledge/skills, if necessary.
7. Teacher provides closure at the end of the lesson.

Classroom management:

- Classroom management is one of the most persistent areas of concern voiced by school administrators, the public, and teachers.

- Research consistently places classroom management among the top five issues that affect student achievement.
- Effective rules and procedures identify expectations and appropriate behaviour for students.
- Another set of clearly stated rules establishes acceptable behaviour specific in a classroom. These rules need to be consistent with schoolwide rules but may be unique to meet the needs of an individual classroom

Formative assessment

- The effective ongoing assessment referred to in education literature as formative assessment and progress monitoring, is indispensable in promoting teacher and student success.
- It is frequently listed at the top of interventions for school improvement.
- The formative assessment consists of a range of formal and informal diagnostic testing procedures, conducted by teachers throughout the learning process, for modifying teaching and adapting activities to improve student attainment.
- Systemic interventions such as Response to Intervention (RtI) and Data-Based Decision Making depend heavily on the use of formative assessment.

Personable competencies (soft skills):

- An inspiring teacher can affect students profoundly by stimulating their interest in learning.
- It is equally true that most students have encountered teachers who were uninspiring and for whom they performed poorly.
- Unfortunately, effective and ineffective teachers have no readily discernible personality differences. Some of the very best teachers are affable, but many ineffective instructors can be personable and caring.

- Conversely, some of the best teachers appear as stern taskmasters, but whose influence is enormous in motivating students to accomplish things they never thought possible.