UNIT-II: TEACHING MODELS

Bloom's Mastery Learning, Skinner's Operant Training, Bruner's Concept attainment, Ausubel's Advance Organizer, Glaser's Basic Teaching (Classroom Meeting), Byron Massials and Benjamin cox's social inquiry, Carl Roger's Non-directive and William Gordon's Synectics models.

UNIT-II
TEACHINGMODELS

The core of the process of teaching is the arrangement of environments within which the students can intertie. A model of teaching is a plan or pattern that we can use to design face-to-face teaching in classroom.Eachmodelguidesusaswedesigninstructionto help students achieve various objectives.

Teaching becomes more successful and fruitful when it follows some systematic procedure of activities. Models of teaching provide us direction on what ways we can move ourselves for imparting effective teaching. Teaching greatly affects the learning capacity. Models of teaching areoneway to organizeintelligenceoriented education, giving our students the means to educate themselves.

Teaching effectively means guiding students learn well; that is mastery of the concepts as well as learning skills. Models of teaching are designed for the development of learners to increase their learning capacity to think clearly and wisely and to build social skills and commitments.

Model of Teaching are plan or pattern that can be used to shape curricula, to design instructional materials and to guide instruction in the classroom and other settings-**Bruce Joyce and Marsha Weil**

"Models of teaching is an individual demonstrating particular

pattern which the trainee learns through imitation"
-Alley &Ryan

Models are prescriptive teaching strategies designed to accomplish particular instructional goals.
Paul D Eggen

A model of teaching is a step by step procedure that leads to specific learning outcomes. -   **Gunter**

A pattern or plan that we can use to design face to face teaching in class rooms or tutorial settings and shape instructional materials"

A model of teaching is an instructional plan or instructional pattern based on a specific learning theory. Development of models of teaching is one of the important innovations in learning.

- It provides directions like what to teach, how to teach, and what actions to take for teaching.
- It enables a teacher for designing educational activities and environments. It is based on educational psychology.
- A logical, psychological and scientific procedure in tended to bring behavioral modification among learners.
- Each and every model has direct and indirect effects on learners.
  - It breaks the monotony of the conventional methods of teaching. It act as a guideline for teaching –learning process; teach the learners how to learn

Fundamental Elements of Teaching Model Bruce Joyce and Marsha Weil designed a basic procedure for implementation of any instructional model. The fundamental elements are briefly described as follows

1) Focus–
The central aspect of teaching model, objective of teaching

2) Syntax-
It is the plan of action in a descriptive way. It shows how the lesson starts, how the lesson progress and how the lesson ends. It is the sequentially arranged teacher student activities completed through

different phases. These phases are different in different models. Syntax describes the model in action.

3) Social System-

It tells the nature of teacher-pupil relationship it represents the style of learning environment. It describes the students and teachers role. It describes the structure of the learning environment, or to what extent he instruction will be teacher centric or learner centric very helpful. There are three types of teacher pupil relationship.

- **HighlyStructured:**Teacherroleisdominantthanpupil.
- **ModeratelyStructured**: Teacherandpupilhas equalrole.
- **Low Structured:** Teacher role is less than pupil. Students dominate in learning activities.

4) Principlesof Reaction-

This highlights the behavior of the teacher towards the student's response. This explains the rules to be followed in the class room. Ittells the teacher how to regard the learner and how to respond to what the learner does.

In some models of teaching the teacher overtly attempts to shape the behavior by rewarding certain student activities and maintaining a neutral stance towards others. On the contrary, in other models such as those designed to develop creativity, the teacher tries to maintain a non-evaluative equal stance so that the learner become self-directing.

5) Support System-

It refers to the additional requirements of the model beyond the usual human skills and capacities, that is the technical facilities necessary for creating appropriate learning environment as suggested in the focus and syntax of the particular model of teaching. These are the materials and resources used by the teacher to complete the plan.Simply it is the teaching learning materials.

6) Instructional and Nurturant Effects:

Models of teaching brings explicit and implicit effect in

learners. Instructional effects refers to the direct effect(explicit) Nurturant effects refers to the indirect effect of teaching model (implicit), It is termed as the byproduct of model of teaching. Models of teaching are grouped into four families on the basis of their orientation towards specific educational goals. They are

> - Information Processing family
> - Behavioral Systems Family
> - Social Family
> - Personal Family

- **Information Processing family**

The family includes models based on information processing source. They mainly focus on problem solving through productive thinking. Information processing means the way in which learners handle stimuli, organize data, sense problem and solve them. Many models of this category develop creativity and general intellectual ability of the learners. Some common models involved in this family are given below.
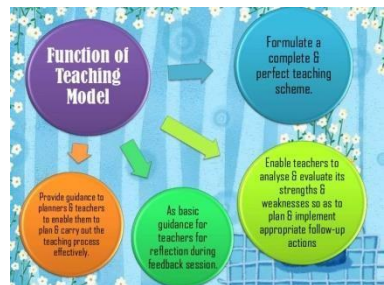
- ✓ Concept Attainment model::: Jerome.S.Bruner
- ✓ InquiryTrainingmodel   :::RichardSuchman
- ✓ CognitiveDevelopmentmodel:::Jean Piaget, Kohlberg
- ✓ Advance Organizer model   :::David Ausubel
- ✓ Inductive Thinking model   :::: Hilda Taba
- ✓ Scientific Inquiry model   :::Joseph Schwab
- ✓ Synectics model   :::: William Gordan
- ✓ Mnemonics   :::Micheal Pressley

- **Behavioural Systems Family**(Behaviour modification family)

In this family, the orientation of the instructional procedure is based on behavior theory. They address to more than one concept like learning theory, social learning theory and behavior modification.

They emphasis on changing the observable behavior of the learner rather than the underlying structure and the invisible behavior. The main models involved in the family are

✓ Mastery Learning model ::: Benjamin.S. Bloom
✓ Simulation model :::Carl Smith
✓ Social Learning model :::Albert Bandura
✓ Programmed Learning ::: B.F Skinner
✓ Direct Instruction model :::Tom Good, Jere Brophy

• **Social Family** (social interaction family) this family emphasizes the importance of social relationship of the learners, based on the assumption that social relation is the vehicle of education. This model of teaching learning process fosters democratic attitude and social efficacy in learners. Some of the main models are.

✓ Jurisprudential Inquiry training model::: Donald Oliver &James. P. Shaver
✓ Group Investigation model:::John Dewey& Herbert Thelen
✓ Role Playing :::Fannie Shaftel
✓ Laboratory training model:::National Training laboratory
✓ Social inquiry model :::Benjamin Cox &Byren Massialas

• **Personal Family** This family deals with the personal development of the individual. These models emphasize the process by which the individual constructs and organizes his unique reality.

Personal and emotional life of the individual and their internal organization as it affects relationship with his environment are the main orientation of this family of models of teaching. They focus on helping individuals to develop a productive relationship with their environment and to view themselves as capable persons rich in interpersonal skills.

The main models involved in this category are

✓ Non directive Teaching model ::: Carl Roger
✓ Enhancing Self-esteem mode:::Abraham Maslow
✓ Awareness Training model :::William Schutz& George

✓ Classroom meeting model   :::William Glasser

.Bloom's Mastery Learning

Mastery learning, proposed by Benjamin Bloom in 1968, is an instructional strategy for individual learning which provides flexible options for faculty and students. Mastery learning has been successfully applied in engineering (Sangalkar et al., 2014), math (Groen et al., 2015), and physics (Masi et al., 2015), as well as other STEM disciplines. Generally, the mastery learning environment, when implemented skillfully, reduces fear and improves motivation and attitudes among students.
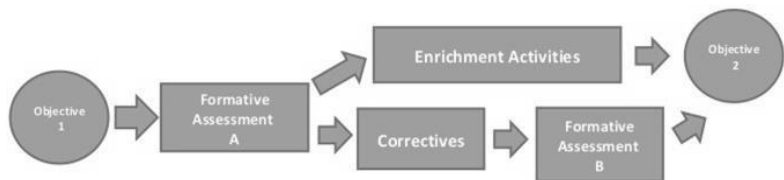
The Mastery Learning Instructional Process

Mastery learning includes the following aspects
✓ Baseline, or diagnostic testing;
✓ Clear learning objectives, sequenced as units usually in increasing difficulty;
✓ Engagement in educational activities (e.g., deliberate skills practice, calculations, data interpretation, reading) focused on reaching the objectives;
✓ A set minimum passing standard (e.g., test score) for each educational unit;
✓ Formative testing to gauge unit completion at a preset minimum passing standard for mastery;

- ✓ Advancement to the next educational unit given measured achievement at or above the mastery standard; and
- ✓ Continued practice or study on an educational unit until the mastery standard is reached.
- ✓ In **mastery learning,** students must attain a given level set by their instructor in order to move forward. If a student does not master the material on their first attempt, they are given additionalsupportinlearningandreviewingtheinformationand then tested again. This cycle continues until the learner accomplishes mastery, and then they may move on to the next stage.
- ✓ **Mastery learning** refers to a shift in responsibilities, sothat a student's success or failure is more reliant on the instruction and not necessarily a student's ability. The difficulty of a mastery learning environment is in giving students a sufficient amount of time to learn and using teaching methods so that all students can reach the same level of learning. Mastery learning is based on the idea of narrowing achievement gaps between students in the same classroom

Mastery learning is a term, formulated by John B.Carrol1 (1971) and Benjamin Bloom (1971). Mastery learning provides a compact and interesting way of increasing the likelihood that more students will attain a satisfactory level of performance in school subjects.

Theytransformedtheirviewsintoasystemwiththefollowingcharacteristics:
- ✓ Mastery of any subject is defined in terms of sets of major objectives which represent the purpose of the course or unit.
- ✓ The substance is then divided into a larger set of relatively smalllearningunits,eachoneaccompaniedbyitsownobjectives,

which are parts of the larger ones or thought essential to their mastery.

✓ Learning material is then identified and the instructional strategy selected.

✓ Each unit is accompanied by brief diagnostic tests which measure the student's developing progress (the formativeevaluation) and identify the particular problem each student is having. The data obtained from administering the test is used to provide supplementary instruction to the students to help them overcome their problems.

Everyclasssufferfrom'under-achievers'(performanceofthe students lacked from normal students), these students suffer from inferiority complex, which affects their progress. This inferiority complex affects self-concept. These students have low self-concept, which affects teaching.

Ultimately it is an enormous wastage of expenditure on education.Thus,Bloompresentedthismodeltoachievemasteryona particular subject to a certain limit, to every student, called it'Mastery Learning Model', based on two assumptions.

▪ Except physically, mentally and emotionally handicapped students (ninety five percent) all students can master a certain subject, if they have given choice to learn by their own speed, and by properteaching methods.

▪ A subject can be mastered from 90 to 95%, if proper teaching methods are adopted.

Focus(Aim) ofthe Model :

✓ To qlevelop in each pupil, a demonstrable degree of masteryover subject.

✓ Toprovidefacilities tostudentsto developtheirown skills.

✓ Toenableeachpupiltolearnathisherownpace.

✓ Todevelopbetterself-conceptin students.

- ✓ Todevelopself-initiatingandself-directinglearninginstudents.

Syntax I

- ✓ Itisdivbdedintothreephases.Itproceedsinthefollowing way:
- ✓ First,all studentsaretaught togetherin same way.
- ✓ TheTeachingandStudentModel
- ✓ Then a mastery test is given to check, if students have mastered the subject.
- ✓ We separate those students, who could not master the subject, anddiagnosetheirdifficultyanddividetheminvariousgroups according to their problems.
- ✓ They are given mastery learning according to their difficulty requirements and then again they are checked by mastery test
- ✓ Presentingthelearningtaskto theclassasawhole.

CoreTeachingSession

- ✓ Administeringmastery testand diagnosingpupil difficulty.
- ✓ Activitiesandinformationgiventothestudentsaboutinstructional objects.
- ✓ Makingtheexpectedmastery levelexplicitto student.

IntensiveTeachingSession

- ✓ Clarifythepupilaccording tomastery level.
- ✓ Providealternativelearningmaterialtodifferentgroup.
- ✓ Organizingsmallgroupsinstructorwithteachers.
- ✓ Organizingtutoringpairs withthepeagroup.
- ✓ Diagnosingindividual study.
- ✓ Administeringdiagnosingtestandpupil's evaluation.
  - o Tutoringby the peers and the teachers.
  - o Providingfurthermaterialforpractice.
  - o Consolidationofthegainsindifferentialteachingsession.
  - o Administeringmasterytest.

Phase one requires that the teacher present the problem situation and explain the inquiry procedures to the students (the objectives and the procedures of the Yes/No question). The formulation of a discrepant event requires some thought, although the strategy can be based on relatively simple problem - a puzzle, riddle, or magic trick - that doesn't require much background knowledge of course, the ultimate goal is to have students, especially older students, experience the creationofnewknowledge,much asscholars do. However,beginning inquiries can be based on very simple ideas.

Phase two, verification, is the process whereby students gather information about an event they see or experience. Inexperimentation,

Phase three, students introduce new elements into the situation to see if the event happen differently. Although verification and experimentation are described as separate phases of the model, the students thinking and the types of questions they generate usually alternate between these two aspects of data gathering.

In phase four, the teacher calls on the students to organize the data and to formulate an explanation. Some students have difficultymaking the intellectual leap between comprehending the information they have gathered and constructing a clear explanation of it. They maygiveinadequateexplanations,omitting essentialdetails.Together thegroupcanshapetheexplanationthatfullyrespondstotheproblem situation.

In phase five, the students are asked to analyze their pattern of inquiry. They may determine the questions that were most effective, the lines of questioning that were productive and those that were not, or the type of information they needed and didn'tobtain. This phase is essential if we are to make the inquiry process, conscious one and systematically try to improve it.

Applicationof Model

Although inquiry training was originally developed for the natural sciences, its procedures are usable in all subject areas; any topic that can be formulated as a puzzling situation is a candidate for inquirytraining.Inliterature,murdermysteriesandsciencefiction stories or plots make excellent puzzling situations.

Followingarethemajorapplicationsofthis model:

- ✓ Developscientificaptitudeinstudents.
- ✓ Self-confidenceandself-dependencyisdeveloped bythismodel.
- ✓ This model prepares the student for life, i.e. to solve the daily problems of life.
- ✓ Thismodelisvery useful forscientificsubjects.
- ✓ Knowledge retains in the mind of student for a longer period because they learn by their own efforts.
- ✓ Itdevelopsacriticalattitudeanddecisionpowerinstudents.
- ✓ The instructional effects of this model are process skills, active autonomous learning, verbal expressiveness, tolerance of ambiguity, logical thinking.

Thus, it is possible for nearly all students to master any given set of objectives, if sufficient time (the opportunity to learn) isprovided along with appropriate materials and instruction. Thusviewed through these phases, they become primarily a guide to how muchtimea learner willneed. It alsosuggests howtoinstruct,because learners of different aptitudes will learn mori: efficiently if the style of instruction is suited to their requirements.

SocialSystem

mastery learning model, teachers role is like a manager because teachers, arrange the education for students, assessing the students, classify them, solve their problems, prepare different lesson plans for different groups. Interaction of students and teacher is found in all the three phases. In all activities teacher's role is highlyimportant.

Evaluation (Support) System Evaluation is not done for the whole class, but for every individual student, emphasis is laid on achievements and weak points of each and every student. Criterion test is conducted. It provides a compact and interesting way of increasing the likelihood that more students will attain a satisfactory level of performance in school subjects.

Application Bloom's mastery learning model is aptly used in attaining mastery over a subject. Following are the main applications:

- ✓ Thismodelishighlyusefultomakemastery(ninetypercent) over the subject matter.
- ✓ There are certain concepts in a subject, which the students must know. This model is useful to master these basic concepts. .
- ✓ Thismodeldevelopsself-concept inthe right direction.

2.2.Skinner'sOperantTraining

Operant conditioning is a method of learning that occurs through rewards and punishments for behavior. Through operant conditioning, an association is made between a behavior and a consequenceforthatbehavior.BehavioristB.F.Skinnercoinedtheterm operant conditioning, which is why it is also referred as Skinnerian conditioning. As a behaviorist, Skinner believed that internal thoughts and motivations could not be used to explain behavior.

Instead, he suggested, we should look only at the external, observable causes of human behavior. Skinner used the term operant to refer to any "active behavior that operates upon the environment to generate consequences" (1953). In other words, Skinner's theory explained how we acquire the range of learned behaviors we exhibit each and every day. Skinner is regarded as the father of Operant Conditioning, but his work was based on Thorndike's law of effect. Skinner introduced a new term into the Law of Effect – Reinforcement. Behaviorthatisreinforcedtendstoberepeated(i.e.strengthened);

behavior that is not reinforced tends to die out-or be extinguished (i.e. weakened).

Skinner studied operant conditioning by conducting experiments using animals, which he placed in a "Skinner Box" which was similar to Thorndike's puzzle box. The Skinner box involved placingananimal (suchasaratorpigeon)intoasealedboxwithalever that would release food when pressed. If food was released every time the rat pressed the lever, it would press it more and more because it learnt that doing so gives it food. Lever pressing is described as an operant behavior, because it is an action that results in a consequence.In other words, it operates on the environment and changes it in some way.

The food that is released as a result of pressing the lever is known as a reinforce, because it causes the operant behavior (lever pressing) to increase. Food could also be described as a conditioned stimulus because it causes an effect to occur. Note: There is an important difference between a reward and a reinforcer in operant conditioning. A reward is something, which has value to the person giving the reward, but may not necessarily be of value to the person receiving the reward. A reinforcer is something, which benefits the person receiving it, and so results in an increase of a certain type of behavior.

Skinneridentifiedthreetypesofresponsesoroperantthatcan follow behavior Neutral operant: Responses from the environment that neither increase nor decrease the probability of a behavior being repeated.

Reinforcersareanyeventthatstrengthensorincreasesthe behavior it follows. There are two kinds of reinforcers.

- ✓ **Positive reinforcers** are favorable events or outcomes that arepresentedafterthebehavior.Insituationsthatreflectpositive

reinforcement, a response or behavior is strengthened by the addition of something, such as praise or a direct reward.

- ✓ **Negative reinforcers** involve the removal of an unfavorable events or outcomes after the display of a behavior. In these situations, a response is strengthened by the removal of something considered unpleasant.
- ✓ In both of these cases of reinforcement, the behavior increases. Punishment is the presentation of an adverse event or outcome that causes a decrease in the behavior it follows. Punishment weakens behavior.

Thereare twokindsofpunishment.

- ✓ **Positive punishment** sometimes referred to as punishment by application, involves the presentation of an unfavorable event or outcome in order to weaken the response it follows.
- ✓ **Negative punishment**, also known as punishment by removal, occurs when an favorable event or outcome is removed after a behavior occurs. In both of these cases of punishment, the behavior decreases.

Schedulesof Reinforcement:

- ✓ **Intermittent reinforcement** – reinforcement is given only part of the times the animal gives the desired response.
- ✓ **Continuous reinforcement** – reinforcement is given every time the animal gives the desired response.
- ✓ **Ratio reinforcement** – a pre-determined proportion ofresponses will be reinforced.
- ✓ **Fixed ratio reinforcement** – reinforcement is given on aregular ratio, such as every fifth time the desired behavior is produced.
- ✓ **Variable (random) fixed reinforcement**– reinforcement is givenforapredeterminedproportionofresponses,butrandomly instead of on a fixed schedule.

- ✓ **Interval reinforcement**– reinforcement is given after a predetermined period of time.
- ✓ **Fixedintervalreinforcement**–reinforcementisgivenona regular schedule, such as every five minutes.
- ✓ **Variable interval reinforcement** – reinforcement is given after random amounts of time have passed.

In animal studies, Skinner found that continuousreinforcement in the early stages of training seems to increase the rateof learning. Later, intermittent reinforcement keeps the response going longer and slows extinction. Skinner specifically addressed the applications of behaviorism and operant conditioning to educational practice. He believed that the goal of education was to train learners in survival skills for self and society.

The role of the teacher was to reinforce behaviors that contributed to survival skills, and extinguish behaviors that did not. Behaviorist views have shaped much of contemporary education in children and adult learning.

Implicationofthetheoryofoperantconditioning

1. **Conditioning study behavior:** Teaching is the arrangement of contingencies of reinforcement, which expedite learning. For effective teaching teacher should arranged effective contingencies of reinforcement. Example: For Self learning of a student teacher should reinforce student behavior through variety of incentives such as prize, medal, smile, praise, affectionate patting on the back or by givinghigher marks.

2. **Conditioning and classroom behavior:** During learning process childacquire unpleasant experiences also. This unpleasantness becomes conditioned to the teacher, subject and the classroom and learner dislikes the subject and a teacher. Suitable behavioral contingencies, atmosphere of recognition, acceptance, affection and esteem helps child inapproachingteacherandthe subject.If studentisnotseriousinstudy,

teacher make use of negative reinforcement like showing negligence, criticizing student etc. but if student is serious in study, teacher make use of positive reinforcement like prize, medal, praise and smile.

3. **Managing Problem Behavior:** Two types of behavior is seen in the classroom viz undesired behavior and problematic behavior. Operant conditioning is a behavior therapy technique that shape students behavior. For this teacher should admit positive contingencies like praise, encouragement etc. for learning. One should not admit negative contingencies. Example punishment (student will run away from thedull and dreary classes – escape stimulation.

4. **Dealing with anxieties through conditioning:** Through conditioning fear, anxieties, prejudices, attitudes, perceptual meaning develops. Examples of anxiety are signals on the road, siren blown duringwartime, childreceivingpainfulinjection fromadoctor.Anxiety is a generalized fear response. To break the habits of fear, a teacher should use desensitization techniques. Initially teacher should provide very weak form of conditioned stimulus. Gradually the strength of stimulus should be increased.

5. **Conditioning group behavior**: Conditioning makes entire group learn and complete change in behavior is seen due to reinforcement. It breaks undesired and unsocial behavior too. Example: Putting questions or telling lie to teachers will make teachers annoyed in such circumstances students learn to keep mum in the class. Asking questions, active participation in class discussion will make the teacher feel happy – interaction will increase and teaching learning process becomes more effective.

6. **Conditioning and Cognitive Processes**: Reinforcement is given in different form, for the progress of knowledge and in the feedback form. When response is correct, positive reinforcement is given. Example: A student whostands first in theclass in themonth ofJanuaryis rewarded inthemonthofDecember.ToovercomethisProgrammeinstructionis

used. In this subject matter is broken down into steps. Organizing in logicalsequencehelpsin learning. Each stepis builtuponthepreceding step. Progress is seen in the process of learning. Immediate reinforcement is given at each step.

7. **Shaping Complex Behavior**: Complex behavior exists in form of a chain of small behavior. Control is required for such kind of behavior. This extended form of learning is shaping technique. Smallest Behavior is controlled at initial stage. On behalf of different contingencies, next order of chain of behaviors is controlled. Example: Vocabulary in English.Teachingspellingismainlyaprocessofshapingcomplexform of behavior.

2.3.Bruner'sConcept attainment

A model of teaching is a plan or pattern that can be used toshape curriculum, to design instructional materials and to guide instruction in the class room and other settings. They are prescriptive teaching strategies. They are designed to realize specific instructional objectives .

ConceptAttainment Model

Whatisaconcept?

A mental representation / mental picture of some object or experience.

The elements of a concept are

> ➢ Nameorlabel
> ➢ Attribute(Essential&Non-essential)
> ➢ Attributevalue
> ➢ Exemplars(Positive&Negative)
> ➢ Rule or definition

This model belongs to information processing family of models. Designed primarily to develop inductive reasoning but also for concept developmentanalysis.Conceptattainmentis"thesearchforandlisting

of attributes that can be used to distinguish exemplars from non-exemplars of various categories." (Bruner, Goodnow, and Austin).

Whereas concept formation, which is the basis of the inductive model described in the previous chapter, requires the students to decide the basis on which they will build categories, concept attainment requires a student to figure out the attributes of a category that is already formed in another person's mind by comparing and contrasting examples that contain the characteristic of the concept with examples that do not contain those attributes.

To create such lessons we need to have our category clearly in mind.

Syntax

Phase 1: Presentation of data and identification of concept · Teacher presents labeled examples · Students compare attributes in positive and negative examples · Students generate and test hypotheses · Students state a definition according to the essential attributes

Phase 2: Testing attainment of the concept · Students identify additional unlabelled examples as yes or no · Teacher confirms hypotheses, names concept, and the restates definitions according to essential attributes · Students generate examples

Phase 3 : Analysis of thinking strategies · Students describe thoughts · Students discuss role of hypotheses and attributes · Students discuss type and no. of hypotheses Social System Prior to teaching with the concept attainment model the teacher chooses the concept, selects and organizes the material into positive and negative examples and sequences the examples.
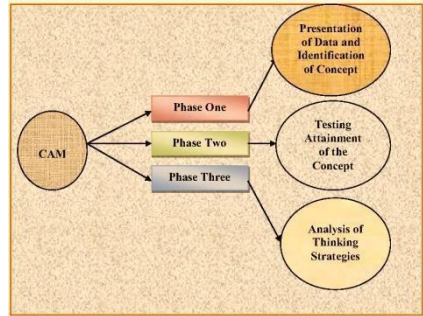
When using the concept attainment model, the teacher acts as a recorder, keeping track of the hypotheses as they are mentioned and of the attributes. The teacher also supplies additional examples as needed.

The three major functions of the teacher during concept attainment activity are to record, prompt, and present additional data. Principles of Reaction During the flow of the lesson, the teacher needs to be supportive of the student's hypotheses – emphasizing, however, that they are hypothetical in nature – and to create a dialogue in which students test their hypotheses against each other.

SupportSystem

Concept attainment lessons require that positive and negative examples to be presented to the students. When students are presented with an example, they describe its characteristics which can berecorded. Application The use of the concept attainment model determines the shape of particular learning activities. For example, ifthe emphasis is on acquiring a new concept, the teacher will emphasize through his orher questions orcomments the attributes in each example and the concept label.

2.4.**Ausubel'sAdvanceOrganizer**

Ausubel's primary concern is to help teachers organize and convey large amounts of information as meaningfully and efficiently as possible. This model is designed to strengthen student's cognitive structures, a term Ausubel uses for a person's knowledge of a particular subject matter at any given time and how well organized, clear and stable it is.

This model istaken from verbal learning principle, in which the main aim is to give the most possible to students. According toAusubel, any subject is a chain of concepts and in our mind also, when we accept these facts, that is also settled as a chain in our mind, if new concept is presented as related with the old one.

In this model, teacher first recalls the previous knowledge, then gives the new knowledge on the basis of previous one. It systemizes the subject in an order, and presents the topic in such a way that the student will grasp it easily. It is also called as expository model. Here teacher exposes the whole concepts among students. Teacher gives verbal instruction and students grasp it as a whole and a chain is made in student's mind.

Itisbased onthefollowing principles:

1. **PrincipleofProgressive Differentiation**:

In it, the most progressive idea about the subject is presented first, then are progressively differentiated in terms of detail and specifically,

2. **PrincipleofIntegratedReconciliation**:

Itsimplymeanshowtheideasshouldbeconsciouslyreconciled and integrated, with previous knowledge. Thus, the model is called Advance Organizer Model.

Anymodel could bedescribed onthe basis of following points:

FocusorAim

- ✓ Togivetheknowledgeof conceptsand factsof subject
- ✓ Todevelopcognitivestructure
- ✓ To enable the students to arrange the knowledge in a socialorder
- ✓ To present the pre-knowledge, explain facts and then present new knowledge so that the new concepts are correlated to pre-knowledge.

Structure (Syntax) There are three phases in this model.

- ✓ Phaseoneisthepresentationof the advance organizer,
- ✓ phasetwoisthepresentationof the learning task and
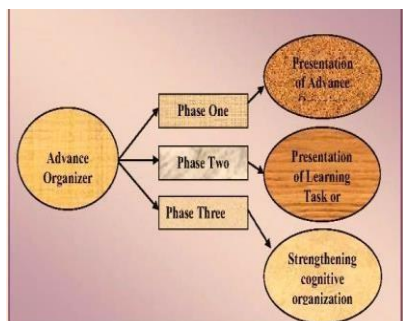
✓ phase three is the strengthening of cognitive organization. The activitiesaredesignedto increasetheclarity and stability ofthenew learning material.

4.**ClaritySocial System**

Inthismodel,theteacherismore active.

Ausubel believed that only teacher can represent the systematic order of knowledge. Teacher is enabling to make effective concepts of knowledge. students can't class-atmosphere is autocratic. Student's role is very less, they are only listeners. But in phase two and phase three, interaction of teacher and student is also done. The successful acquisition of the material will depend on the learner's desire tointegrate it with his/hers prior knowledge, on their critical faculties, and on the teacher's presentations and organization of the material.

Design, cues and Strategies Support System Well organized material is the critical support requirement of this model. The effectiveness of the advance organizer depends on an integral and appropriate relationship between the conceptual organizer and the content. Oral and written question-answers could be used for the presentation of knowledge.

Applicationof Model

The model is especially useful to structure extended curriculum sequences or courses and to guide students systematically in the key ideas.

Followingarethe mainapplication ofthis model:

✓ Abstract subjects which can't be seen or presented, can be easily taught by this model.

✓ Cognitive aims can be achieved by this model. Selection, organization, presentation and expression can be achieved.

✓ We would expect on increase, too in the learner's grasps of factual information which could be linked to and explained by the keyideas,theconceptofideas.Theconceptofsocializationcanbe

drawn in the study of socialization patterns in different cultures.This advande organizer thus aids in expanding students knowledge about cultures.

✓ It can also be shaped to teach the skill of effective reception learning. Critical thinking and cognitive reorganization can be explained to the learners, who receive direct instruction in orderly thinking and in the notion of knowledge hierarchies.

✓ This model is considered good and used widely in school. When we present the subject in organized way, student gets all matter in systematic order. In less time, more knowledge can be given.

✓ The instructional effect of this model isthat the ability tolearn from reading, lectures, and other media is used. Presentation is another effect, as an interest in inquiry and precise habits of thing.

2.5. **Glaser'sBasicTeaching(Classroom Meeting),**

In order to explain teaching, different theories of teaching have been advocated. As explained earlier, teaching is a complex concept. Understanding theory of teaching has given us models of teaching. A model is aminiatureform orconcretization of an abstract idea, showing the relationship among its various components. In many areas, models are prototypes of theories to understand better any phenomenon.Models give way to support theories or explanation and supporttheories.

Joyce Bruce (1972) has made an excellent attempt to survey different models of teaching in his famous book 'Models of Teaching'. Robert Glaser (1962) has advocated one such teaching model, where he has divided the teaching into four important components. His model with slight modification now serves as a 'Basic Teaching Model' to all. He has divided the whole teaching process into four parts. Feedback Loops for Performance Assessments
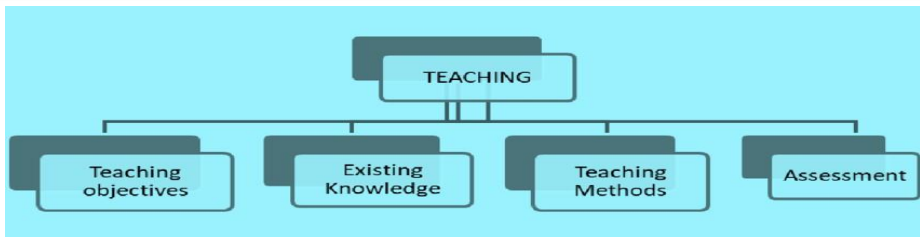
There are four parts in this model.

Box A represents instructional objectives. Process: A Revisit Box B represents entry behaviour.

Box C represents instructional procedures and box

D gives performance assessment.

Instructional Objectives

Instructional objectives are often referred to represent teacher objectives and learner objectives. These are clearly distinguished from institutional objectives.

Institutional objectives are very broad statements of goals and reflect economic, political and social ideologies. They may serve as a general framework for stating the narrower, more specific teacher and students' objectives.

Teacher objectives are narrower in scope than the institutional objectives. Their main purpose is to guide the teacher in the selection of the subject matter, materials and activities when he I she organizes teaching.

Learner objectives refer to options and plans expressed and pursued by the learners.

For example, there may be course objectives but in organizing classroom teaching it is the specific behavioural changes which can guide a teacher to plan, execute and assess a teaching session. One way of defining instructional objectives would be to identify the end product of instruction in terms of observable performance i.e. what the learner will do (action verb to be used) at the end of teaching session in order to

demonstrate that learners' objectives have been achieved. Theselearning outcomes have been conventionally referred to as 'terminal performance'.

Behavioural objectives differ from non behavioural objectivesin statements or in the use of verbs. The verbs in the behavioural statements are like name, distinguish, list, apply etc. whereas verbs in non behavioural statements would be like understand, appreciate, grasp the meaning of, etc. The behavioural statements usually would include verbs of responses which are overt, demonstrable and measurable. For example:

✓ The studentsshouldknow 'Renaissance'and'Reformation'. (Non behavioural)
✓ The students should be able to distinguish between 'Renaissance' and I Reformation.
✓ Thestudents haveknowledgeof 'Nouns'.(Nonbehavioural)
✓ Thestudents would be able to define'Noun',

The above four examples were presented to show you the different ways of stating objectives, Usefulness of beaviouralobjectives: There are clear cut advantages of writing instructional objectives in behavioural terms. We prepare such objectives for the following reasons:

Research shows that thereis arelationship between instructional objectives and instruction of procedures to be followed by the instructionalobjectivesinbehaviouralterms isto carryouttask analysis in operational terms. This definition provides guidance and direction in the planning of instruction. This planning allows the teacher to determine at the start, the terminal behaviour of a student and this inturn would demand instructional 'procedures.

The second purpose of writing instructional objectives in behavioural terms is to provide direction for achievement test items. Onehasmuchmoredifficultyinconstructingtestitemswhichcontain

undefined verbs likeknow, understand etc. than forthose which contain verbs like apply, define, differentiate etc. Therefore, statement of objectives in behavioural terms and construction of criterion test items are interwoven.

The third reason for using behavioural objectives is to provide best help to learners. The principles of learning say that the student is more likely to learn if the presentation is structured so that the instructor'sintent1messagescandirectstudent'sattentionandeffortsin a very, focused and ' specific direction.

2.7.CarlRoger'sNon-directive

Nondirective Teaching Model is made on the basis of the work of Carl Rogers and some of the other advocates of nondirective counseling. Rogers gave his ideas on therapy as a way of learning to education.Rogerssaid that"Positivehumanrelationshipsenablepeople to grow and therefore, instruction should be based on concepts, of human relations rather than on concepts of subject matter, thought processes, or other intellectual sources. The teacher's role in nondirective teaching is that of a facilitator who has a personal relationship with students and who guides their growth and development".

Thegoals ofNondirectiveTeachingModelare:
- ✓ To help students in getting greater personal integration, effectiveness and a realistic self-appraisal.
- ✓ Tomakelearningenvironment conducive.
- ✓ To make the process of stimulation, examination and evaluation with new perception.
- ✓ To help the students to understand their own needs and values.

- ✓ Tomakethestudentsabletodirecttheirowneducational decisions.
- ✓ Tohelp thestudents to maketheirlives constructive.
- ✓ Toseetheworld asthe studentsees it.
- ✓ Tocreatean atmosphereofempathetic communication.
- ✓ Todevelopthoughtsandfeelings.
- ✓ Tomakeemotional development

TheNon-directive Interview:

The nondirective interview is the most important and most applicable technique for maintaining facilitative relationships which requires achain of face-to-faceencounters between teacher and student. The teacher helps the students in the process of student self-exploration and problem-solving. The teacher structures interview to focus on the uniqueness of the students and the importance of their emotional life in all human activity. The interview technique is taken from counseling mostly used in the clinical setting.

Uses of Nondirective Interview: The uses of nondirective interview are as under:

- ✓ Itisusefulforacademic counseling.
- ✓ Itisuseful forbehaviouralcounseling
- ✓ Developingfeelingsofstudents
- ✓ Makinggoodpartnership between studentandthe teacher
- ✓ Identifyingappropriatebehaviouralchanges

Qualities of Nondirective Interview: As Rogers stated that there arefour definite qualities of the best interview atmosphere as under:

- ✓ "Theteachershowswarmthandresponsiveness, expressinggenuine interest in the student and accepting him or as a person".
- ✓ "The counseling relationship is characterized by permissiveness in regard to the expression of feeling; the teacher does not judge or moralize.Becauseoftheimportanceofemotions,muchcontentis

discussed that would normally be guarded against in more customary student relationships with teachers or advisors".

- ✓ "The student is free to express symbolically her feelings, but she is not free to control theteacherorto carry impulses into action. In the counseling situations, there are definite limitations in terms of responsibility, time, affection and aggressiveness action".
- ✓ "The counseling relationship is free from any type of pressure or coercion. The teacher avoids showing personal bias or reacting in a personally critical manner to the student during the interview".
- ✓ TeacherResponses forNondirective

In nondirective interview, the students are accountable for the meaningful discussion. Here the teacher must provide "lead-taking" responses for maintaining the well thoughtful conversation. These suitableandsufficientstatementsunderresponses oftheteachersupport the students to start and initiate the interview. The directions are provided in an open manner or indicated the students as to what they have to discuss specifically or generally.

Nondirective lead-taking remarks are spoken straightly in a pleasant, positive and amiable manner. Some of the examples are as under: "What shall we talk about today?" "What do you think of that?" "Can you say more about that?" "How do you react when that happens?" In most of the cases, the responses are brief statements that are helpful and make the students able to continue the conversation under the process of discussion.

- ✓ Methodsofteachingarebasedonstudents'flexibilityof learning and group work.
- ✓ The role of the teacherisa facilitator,resourceperson, guide, and advisor.
- ✓ Thestudents'determine whatisimportanttolearn.

✓ More emphasis is given to self-evaluation rather a teacher evaluation. Progress is measured qualitatively rather than quantitatively.

ModelofTeaching:

Modelofteachingconsistsofsomeofthe steps

Syntax: AccordingtoRogers,thenondirectiveinterviewhasasequence divided into five phases of activity.

> PhaseI:DefiningtheHelpingSituation Phase
>
> II: Exploring the problem
>
> PhaseIII:Developing insights
>
> PhaseIV:PlanningandDecisionMaking
>
> Phase V: Integration
>
> PhaseVI:Actionoutside the interview

PhaseI Defining the HelpingSituation:

This phase consists of structuring remarks by the counselor, that states the freedom of students to explore feelings, an agreement on the general focus of the interview, an initial problem statement, some discussion of the relationship if it is be ongoing, and the establishment of procedures for meeting. At this phase, at the initial interview takes place in an ongoing relationship between student and teacher.

The teacher makes some necessary structure of interview if needed.Voluntaryandinvoluntarysituationalsooccurandtobeframed differently. The teacher encourages the students to express feeling freely. The students are free to make more interaction for healthy and fruitful discussion. All the students come to the agreement for the central focus ofthe interview. Theteacherdoes not makeinterpretation, evaluationorprovideadvicebuthereflects,clarifiesconsiders,explains and demonstrates understandings.

PhaseII: Exploring theProblem

At this phase, the teacher encourages the students to exploreand definetheproblem.Theteacherexpresstheirpositiveandnegative

feelings. The teacher clarifies the problem and accept the responses of the students. The students further are induced to ask the question for clarification. The teacher provides well stated positive and short response.

PhaseIII: Developing Insights

At this stage, the students are activated and motivated to discuss problem. The role of the teacher is support the students whatever they require for the help in development of their insights for the sake of creating innovative ideas.

According to Rogers, "he perceives new meaning in his experience, sees new relationships of cause and effect, and understands the meaning of his previous behaviour. In most situations, it seems that the student alternates between exploration of the problem itself and the development of new insight into his feelings.

Both activities are necessary for progress. Discussion of the problem without exploration of feelings would indicate that the student himself was being avoided".

PhaseIV:PlanningandDecision Making

The teacher encourages the students to make planning decision with respect to the problem. The most important role of the teacher is to clarify the alternatives.

PhaseV: Integration

This is the stage where students get further insights. They try to develop more positive actions for solving problems and providing its right solution. They make plans more integrated and positive actions. Here the teacher plays significant role to support the students. Integrationofeach andeverylearning activityunderinterviewhelpsthe students to keep in their mind for longer period in memory reservoir. Integrationalsohelpsthe studentstoremembethevariousactivitiesfor application in future. Several interviews help the students to explore a problem and develop insights at the best possible level.

SocialSystem

The social system of the nondirective interview requires less external structure. The role of the teacher in nondirective interview is facilitator and reflector. The students are mainly accountable for the initiation and maintaining the interaction process. The authority of the academic institution takes participation between student and teacher.

The students make open expression of their feelings. They maintain autonomy of thought and behavior. The process of rewardsand punishment is not applied in nondirective interview. According to Rogers, "the rewards in nondirective interview are more subtle and intrinsic acceptance, understanding and empathy from the teacher. The knowledge of oneself and the psychological rewards gained from self-reliance are generated by the student himself or herself".

Principleof Reaction

The principles of reactions are grounded in nondirective responses. The teacher contacts the student. The teacher empathizeswith the personality of the students with the help of his own experience as a teacher. The teacher tries to understand how the student feels. The teacher helps the students to define, formulate problems and feelings.

Support System

The support system for this non-directive interview varies according to the nature and function of interview. If the interview considers academic aspects, the essential self-directed resources for learning must be provided beforehand. If the interview is to negotiate counseling for a behavioral, no resources beyond the skills of theteacher are necessary.

In both cases, the one-to-one situation desires specific settings. The privacy must be maintained. The disturbing activities must be removed from classroom. The teacher must provide proper time for exploring a problem adequately. The teacher and students must formulateanddefineproblemnotinhurriedfashion.Theymusttake

sufficient time to develop their best possible insights for innovative and creativeideaswhichareessentialforstatingtheproblemsandproviding proper solution.

Application :

- o Theapplicationofnon-directiveinterviewareasunder:
- o Tosolvepersonal,social andacademic problems
- o Toexplorefeelings of thestudents.
- o Todevelopgoodrelationshipswith others
- o Tomaketheintegration ofseveraleventsof interview.
- o Toinvestigate theproblemsof the students.
- o Todiagnosethespecific feelingsof the students.
- o Tomakeemphasisonpersonalcontentratherthanexternal.
- o Toutilizepersonalexperiencesoftheteacherandthe students.
- o Todevelop communication skillsof thestudents.
- o Toperceiveasthestudents perceives.

2.8.WilliamGordon'sSynectics models.

SynecticsisateachingmodelthatwasdesignedbyWilliamJ.J. Gordon which aims to develop the creative thinking through the useof metaphor and analogy.Originally intended for use in industry it has become a valid and strong teaching model that can be applied in classrooms across disciplines.

Teachers present students with an image, an issue, questions, or situation and ask them to make metaphors with the aim of combining normally unlike concepts thereby providing students with a way to observe the situation in a new way.It allows students to access the creativeproblem-solvingskillsincludingrestructuringideasaboutwhat is known, providing access to the unknown, and empathy with a situation; all important to contemporary learning.

Gordon and Prince were making brainstorming activities which wereverysuccessfulandeffective;Synecticshasbecomeamethodthat

people can use to help them overcome obstacles they encounter by doingbrainstormingwhiledoingdifficulttasks.UsingSynecticsalso improves problem-solving capacities as people will use creative thinking and imagination capabilities.

Step1:Describethetopic

At the first step, Photosynthesis is a new topic we will study in and studentswillbeaskedtowriteaparagraphaboutPhotosynthesis.We say"Now,howwouldyoudefinephotosynthesisinyourownwords. Please feel free to write down everything come out on your mind" Then, students will be asked to share the words they have used to describe the topic and we will write down every word they say.

Step2:CreateDirect Analogies

In the second phase of the model, students will be asked to examine the listandnameaCountrythatremindsthemofasmanyofthosewordsas possible.When asked to name a Country that these words reminded them of, they will list the following:

- Egypt
- China
- Singapore
- Turkey

Then,StudentswillvoteonwhichCountryofwordsmostwordsinthe list.

Step3:DescribePersonalAnalogies

InthethirdstepoftheSynecticsmodel,studentswillbeaskedtoview reality from the prospective of the metaphorical object that they will select. We will give students a short time to think, then we will ask them to tell us how it feels to be this object and then we will list their reactions on the board.

Step4:IdentityCompressedConflicts

The fourth step is the most exciting and important step in this model. Wewillaskstudentstoexaminethelistofdescriptivefeelingstheywill

createinthelaststepandtoputtogetherpairs ofwordsthatseemto fight each other. For instance, our example
- HappyandSad
- AngryandPleasant
- HappyandSad
- StrongandTired
Theseareallcombinationsofwordsthatseemtobeinconflict,yeteach pair is in metaphoric tension. Students will vote once again on which combinations of words contains the best compressed conflict.

Step5:CreateaNewDirectAnalogy
Usingthecompressedconflictchosenbytheclass,wewillaskstudents to create another analogy. For instance the analogies would be as followings.
- Tom(Tom&Jerry):whenItisnothungry,Itshappy.WhenIttriesto catch jerry, and fails, it becomes sad.
- Spiderman:Heishappy,becausehehassuperpowers.Heissad because he has not had enough money.
Then,once again,studentswillvoteonthebestdirect analogy.

Step6:Reexaminethe Original Topic
In this step, we will take the last direct analogy and compare it to the originaltopic.Forinstance,wechoseSpidermanasouranalogyandwe will ask students to describe his characteristics than consider the character in terms of the description.
The purpose is to get away from the original topic, step by step, and then to return with all the rich imagery that has been developed during theprocess.Animportantpartofthisstepisthateachstudenthearsthe thoughts and relationships expressed by the others.
Then, Students will be asked to describe the original topic in writing again.Wewillgivethemopportunitytouseanyoftheimagesthatwere organized during the exercise, not only those of the last analogy.