CHAPTER - 1

INTRODUCTION

1.1.1 Concept of Teaching

Teaching lies at the heart of the educational enterprise. It is the point of delivery of the education system and the key to its success. Because of this, teaching is the focus for numerous research projects and the subject of constant debate. The abiding concern of policymakers and researchers is to understand better the nature of teaching in order to create a better learning environment. Although any teaching-learning relationship is defined by certain constant features that relate to the nature of the task itself, each teaching-learning situation will also be influenced by a range of contextual influences such as the age of the pupils, their number and their motivation for being there. It is relativities such as these in the teaching situation which help to determine both the kind of pedagogical approach that can be employed and also the objectives which are being pursued.

Teaching is often thought of as something that comes rather naturally to people who know their subject. In general, it is thought that it is a simple process that produces simple outcomes. But teaching is an intriguing, important and complex process. It takes place in a complicated social institution, which is filled with diverse people. It is a fluid interplay of events. One can not just know the subject and teach it, because the subjects themselves are ever changing. The physics of 1989 is not the physics of 1979. The art of
today is not the art of 1930. It is true that teaching is a process by which teacher and students create a shared environment including sets of values and beliefs which in turn colour their view of reality. The social movements now shaping the world were not imagined by the best minds of a generation ago. The teacher must learn to control five processes of teaching; firstly, making and using knowledge, secondly, shaping the school, thirdly, teaching with strategy, fourthly, creating interpersonal climates and fifth and lastly controlling a teaching personality. Bruner also emphasized four major features of theory of instruction in effective teaching (i) predisposition towards learning, (ii) structured body of knowledge, (iii) sequences of material to be learnt, and (iv) the nature and pacing of reward and punishment. It means that a theory of instruction in teaching is concerned with how and what one wishes to teach can be best learnt, by improving rather than describing learning.

1.1.2 Research on Teaching

The amount and the direction of research on teaching styles demonstrate vigorous changes during the past decade. As with any developing field, all stages of the movement are visible simultaneously, but there appears to be a clearly discernible pattern to the development.

Phase I Validation of Theoretically Derived Teaching

In the first phase during the 1960s and early 1970s, a flurry of studies attempted the validation of theoretically derived teaching construct, usually dichotomous variables that carried on implicit, if
not explicit, value preference. Several instrumentation break through (Medley and Mitzel 1958, Flanders 1960) allowed the dominative versus integrative construct of Anderson (1939) and the teacher centered versus learner centered notion of Withall (1949) to be examined in classrooms. The research for the most effective teaching style was pursued with much excitement during this period.

**Phase II Specific Behaviour of Pupils**

The next phase focussed on specific behaviours that are related to learning outcomes of pupils rather than on global teaching styles. This phase continues actively today as specific teacher variables are tested in various settings to determine their utility.

**Phase III Research-Based Teaching Pattern**

The third critical, but rather rudimentary, phase has just begun to emerge from the research base. The development of research derived teaching patterns or styles has started to occur, at least for children of a particular age in particular settings. Only a few patterns have been identified, but the ones that have emerged are firmly rooted in empirical research rather than derived from theory. Within this phase, there is an attempt to develop generic patterns or styles that have broad utility as well as the possibility of synthesizing specific patterns effective for particular panic children in specific settings.

The research on teacher effectiveness has been consistently set in the framework developed by Mitzel (1960) and elaborated by Dunkin and Biddle (1974) Mitzel sketched four categories of variables: presage, context, process and product.
Presage variables include all the knowledge, attitude, values and personality characteristics that teachers and students bring to the classroom.

Context variables include, but are not limited to, building facilities, programme materials, classroom aids and psychological climate.

Process variables are the actual behaviour and interactions that occur in the day to day instructional activities of the school.

Finally, product variables are the measures of the pupil changes on a dimension of interest, such as academic achievement or self-esteem.

**Methods Based Teaching**

Teaching methods inevitably constitute significant aspects of the human effort to educate. These are the patterns of teacher behaviour that recurrent, applicable to various subject matters, characteristics of more than one teacher and relevant to learning and may be considered a sub-category of educational methods which also include instructional devices such as teaching machines, conventional and programmed textbooks, simulations, films and others such as inductive and deductive method, heuristic method, lecture method, discussion method, discovery method, problem-solving method, project method, etc.

The origin of methodology in education can be traced to the ideas of Rousseau, who himself was influenced by Locke and others. Earlier writers like Comenius, rebelled against the formal education of
their day and suggested better principles of teaching but without any tangible results because of the turmoil of the times. In the eighteenth century, Rousseau provided some of the ideas for reforms in teaching which others developed and put into practice. The most important of these reformers was Pestalozzi, who accomplished his great work in Switzerland between 1800 and 1825. Pestalozzi attempted to reduce the educational process to an organized routine, based on the natural development of the child. Although not original or very efficient, his work marks the introduction of modern pedagogy and the beginning of the modern methods in elementary training. Pestalozzian ideas spread rapidly throughout Europe and the United States but had little practical influence upon methods of teaching in the secondary schools.

Frobel-Herbart and others succeeded Pestalozzi. Herbart emphasized educational development from experience and from the environment, as contrasted with Pestalozzi's emphasis on mental development from within and according to organic law.

Thus, although Herbart recognized the need for adopting instruction to fit the capacities of the child, his chief concern was with method and with the work of the teacher. Herbart undertook to show that education consisted in the building up of an "appreciative mass" of ideas rather than in the development of the mental faculties.

By 1910, Herbartianism as a system of education was quite generally criticized. The emphasis upon the teacher and formal procedure, was especially opposed. Modern educational theory and
practice have been growing largely out of the work of Pestalozzi, Frobel and Herbart. The new philosophy, however, is based on a new psychology and on modern scientific procedure. It emphasizes pupils, at least in theory; it regards learning as an active process, it considers the interests of the pupils individually and collectively and it lays stress on education as being constant process of reorganizing and reconstructing experience.

**Models Based Teaching**

There are varying instructional goals for different classes and different subjects. We can refer Bloom's taxonomy of educational objectives which are categorized into three domains. These are cognitive, effective and psychomotor. To achieve these educational objectives or goals, different teaching strategies must be practiced by the teacher. Model-approach to teaching was proposed by a number of educationists and psychologists. Flander put his interaction analysis as a model of teaching and for this approach he categorised the statements of students and teachers into ten categories. Glaser developed his stripped down model of teaching which after some modification is well known as basic teaching model. He divided instructional material in his model into four components. These are instructional objectives, the entering behaviour of the students, instructional procedure, and the performance and assessment.

**1.2.1 Background of Models of Teaching and Its Concept**

From the dictionary meaning the model is a pattern of something to be made or reproduced and means of transferring a
relationship or process from its actual setting to one in which it can be more conveniently studied. In the point of view of teaching, a model of teaching is a plan or pattern that can be used to shape curricula, to design instructional materials and to guide instruction in the classroom and other settings. The most important aim of any model of teaching is to improve the instructional effectiveness in an interactive atmosphere and to improve or shape the curriculum.

In India, during the last few decades, efforts have been made to study the classroom behaviour of teachers through Flander's Interaction Analysis Category System which equip them to change teaching behaviour, so that development in the cognitive and affective domains of pupils can be brought in. Efforts were also made to identify teaching skills for teaching different subjects. Also the Micro-Teaching technique was researched for improving upon general teaching competence. Later, different strategies of Integration of teaching skills were tried out. Another group of researchers tried to find out the teaching patterns which are conducive for developing cognitive and affective behavior. It's generally agreed that the objectives to be achieved through the teaching learning process are Multidimentional in nature. Its also felt that a particular method or technique may not be appropriate for achieving multidimensional objectives. This led researchers to explore the use of various methods and techniques in an integrated fashion which resulted in the development of new instructional strategies. The greatest emphasis was on development of the cognitive domain. All these efforts did little
for achieving the all-around development of the personality of the child. In other words, cognitive, Affective and psychomotor behaviour must be developed in a balanced and integrated fashion. Models of teaching have great potentiality for achieving this goal of Education.

A model of teaching has been defined in various ways by research workers who worked in the field of teaching. One of the most comprehensive definitions runs as "Model of teaching can be defined as an instructional design which describes the process of specifying and producing particular environmental situations which cause the students to interact in such a way that a specific change occurs in their behaviour."

1.2.2 Classification of Families of Models of Teaching

A Model of teaching consists of guidelines for designing educational activities and environment. Models of teaching provide specifications for constructing learning situations. They are plans that can also be utilized to shape courses of studies to design instructional material and to guide instruction. They are developed by people who worked in different fields. They are based on empirical work, theories and researches.

Bruce Joyce and others developed ways of making the theories operational. Thus each model has a rational that justifies it and describes what is good and why? They link different skills of teaching to theory.

Bruce Joyce and Marsha Weil (1980) searched, developed and designed more than 20 models of teaching. These models of teaching
have a great potentiality for achieving the aims and objectives of education. Thus based on the way they approach educational goals and means, they are classified into 4 families, viz.,

- Information Processing Models
- Social Interaction Models
- Personal Models
- Behaviour Modification Models

A. Information Processing Models of Teaching Family

Information processing models share an orientation towards the information processing capability of learners and the ways they can improve their ability to master information. Information processing refers to the way people handle stimuli from the environment, organize data, sense problems, generate concepts and solutions to problems and employ verbal and nonverbal symbols.

The models of teaching of this family are concerned with the organization, presentation, verbal and nonverbal symbols in a way that helps in the formation of concept and problem solving and development of social relationship and integrated personality. Thus, these models are concerned with the productive thinking and development of general intellectual ability. The important models of this family are as follows:

1. **Inductive Thinking Model of Hilda Taba**

   It proposes to process the information through inductive process.
II. *Scientific Inquiry Model of J. Schwab*

It is designed to teach the method employed by the subject for solving scientific and social problems.

III. *Concept Attainment Model of J. Bruner*

It proposes to develop concept of inductive reasoning *i.e.*, developing a concept after presenting its examples and non-examples.

IV. *Advance Organizer Model of David Ausubel*

It proposes to increase the capacity of learner to absorb and relate bodies of knowledge.

V. *Cognitive Growth Model of Jean Piaget*

It has been designed to increase general intellectual ability specially logical reasoning.

VI. *Memory Model of Henry Lorayne*

It is designed to increase the capacity to memorise concepts, facts etc.

B. *Personal Models of Teaching Family*

'Personal Models' share an orientation towards the individual and the development of selfhood. The models emphasize the processes by which individuals construct and organize their unique reality. Frequently, they focus on the emotional life of the individual. It's expected that the focus on helping individuals to develop a productive relationship which the environment and to view themselves as capable persons will produce richer interpersonal relations.
Some of the important models of this family are as follows:

(i) **Non-Directive Teaching Model of Karl Rogers**

It aims at the development of the personal self in self awareness, autonomy and self-concept.

(ii) **Synectics Model of William Gorden**

It is designed to develop creativity and creative problem solving in the learner.

(iii) **Classroom Meeting Model of William Glasser**

It aims at the development of a sense of responsibility and self-confidence in one's own group.

C. **Social Models of Teaching Family**

The models of this family are concerned with the social relationship of the individual with others in the society. They focus on the process by which reality is socially negotiated. These models aim at the development of social relationship, democratic processes and work productivity in the society. This is not to say however, that these models restrict themselves to the development of social relationship. They are also concerned with the development of mind and the learning of academic subjects. Some of the important models of this family are as follows:

(i) **Group Investigation Model of Herbert Thelen and JonDewey**

It aims at the development of skills for participation in democratic social processes through interaction skills and inquiry skills.
(ii) **Role Playing Model of Shaftel and Shaftel**

It aims at motivating students to inquire into different personal and social values.

(iii) **Social Simulation Model of Seren Boocock and Harold Guitzknow**

It is designed to help students to experience various social processes and to examine their own reaction to them and also acquire concept and decision making skills.

**D. Behavioural Models of Teaching Family**

The main thrust of these models is modification of the visible or overt behaviour of the learner rather than the underlying psychological structure and unobservable behaviour. The main psychological bases of these models are stimulus control and reinforcement as put forward in B. F. Skinner's theory of operant conditioning and Banduras theory of social learning. The common characteristic of these models are that they break down the learning task into series, of small sequences of behaviour. Each behaviour is so designed that success is ensured; the learner actively responds to the situation; to the problematic situation and gets reinforcement and feedback. Some of the important models of this family are as follows:

(i) **Contingency Management Model of B. F. Skinner**

It proposes to teach facts, concepts, and skills.

(ii) **Self-Control Model of B. F. Skinner**

It is designed to develop social behaviour and social skills.
(iii) **Stress Reduction Model of Rimm and Masters**

It aims at reduction of stress and anxiety in social situation and their substitution by relaxation.

(iv) **Desensitization Model of Walpe**

It is designed to reduce anxiety through pairing deep muscles relaxation with imaginative scenes that the student had said cause him or her to feel tense.

The above mentioned models under different families of models of teaching aim at the development of different aspects of human personality that are social, personal, informational and behavioural. Since education is meant for all round development of child's personality, no single model can be selected for his or her development. All of them will have to be employed according to the requirements of the situation, that is, if some information is to be given, models of the first family would be required; if creativity is to be developed in the child, synectic model would be needed; if objective is to eliminate anxiety and stress, Desensitization model of Walpe would be needed, and if the objective is the development of the social skill, then model like Group Investigation Model of Herbert Thelen would be required.

The Selection of model also can be dependent on curriculum requirement, for example, a biology teacher may need the Inductive Model of Hilda Taba and Concept Attainment Model of Bruner and social studies teacher who proposes to teach about values would need Role Playing Model of Fannie Shaftef and George Shaftel, which
motivates to inquire the personal and social values. Some situation would require an application of a combination of models, that is, in a class of social studies, the teacher may have Inductive Thinking Model to help children master-map-skills and Group Investigation Model for criticizing social issues.

1.2.3 Components of Model of Teaching

The model of teaching consists of the following components:

(i) Syntax
   It describes the phases of the model. Each model has different strategies.

(ii) Social System
   It describes the role of students, teachers and relationship between the kinds of norms that are encouraged.

(iii) Principles of Reaction
   It explains the procedure in which the teacher deals with the reactions of the students.

(iv) Support System
   It deals with the use of other teaching aids, human skills and capacities and technical facilities.

(v) Instructional and Nurturant Effect
   It describes the direct and implicit results of instructions.

(vi) Application
   It deals with the further applicability of the model for different curricula and classes.
1.2.4 Assumptions of Models of Teaching

Models of teaching have been evolved on the following assumptions.

i. The first assumption underlying all models of teaching is that teaching is the creation of appropriate environment. There are various component parts of teaching environment which are interdependent.

ii. The second Assumption is that content, skill, instructional roles, social relationships, types of activities, Physical facilities and their uses, all form an environmental system whose parts interact with each other to constrain the behaviour of all participants; teachers as well as students.

iii. The third assumption is that different combinations of these elements create different types of environment and elicit different outcomes.

iv. The fourth and the last assumption is that models of teaching create environment. They provide rough specification for environment in the classroom teaching-learning process.

However the focus of the present study is on one of the Information - processing Models, namely David P. Ausubel’s – Advance Organizer Model.

1.3.1 Advance Organizer Model

An important resource in the classroom is written material. A perennial concern of educators is the preparation and use of materials that are organized in such a way as to maximize learning. David P.
Ausubel, in his theory of meaningful verbal learning advocates the use of advance organizers to facilitate the learning of written materials.

Indian classrooms are dominated by teacher-talk. Most of the time teachers use a lecture method for teaching different subjects at various levels of education. The Lecture Method is popular among both school as well as college teachers. The Lecture Method, as used in classrooms, is neither structured, nor the Lecture Method used by any two teachers, the same. The common observation is that the Lecture Method as used in classrooms is not very effective, both in terms of understanding and to the liking of students. Efforts are being made to design ways and means of improving the effectiveness of the Lecture Method. David P. Ausubel made an attempt in this direction. He propounded the Theory of Meaningful Verbal Learning. Based on this theory, an Advance Organizer Model was developed. The structure of this model closely resembles the Lecture Method. Thus, the modified Model which is very effective, and instead of the teacher, students dominate the classroom, which leads to better learning. The Advance Organizer Model can be used only for verbal teaching. It can also be used for developing instructional material. The use of the Advance Organizer Model in the instructional material helps in comprehending the content.

1.3.2 Theoretical Background

Theory Underlying the Advance Organizer Model

The Advance Organizer Model is based on the Theory of Meaningful Verbal Learning propounded by David P. Ausubel.
Meaningful learning pre-assumes two things: first, the learner manifests a meaningful learning set, that is, a disposition to relate the new material non-arbitrarily and substantively to his cognitive structure; second, the material he learns should be potentially meaningful to him, namely, related to his structure of knowledge on a non-arbitrary and non-verbatim basis. It obviously depends on the two principle factors involved in establishing this kind of relationship, that is, both on the nature of the material to be learned and on the non-arbitrary and non-verbatim basis. It obviously depends on the nature of the particular learner's cognitive structure. Cognitive structure means a person's knowledge of a particular subject matter, at any given time and how well organized, clear, and stable it is. Thus, it follows the potential-meaningfulness of learning material-varies not only with the prior educational background, but also with factors such as age, IQ, social class and culture membership (Ausubel, 1968).

The theory of Meaningful Verbal Learning is concerned with three aspects of teaching-learning process: (a) how knowledge (curriculum content) is organized; (b) how the mind works to process the new information (learning); and (c) how these ideas about the new material can be applied by teachers when they present new material to students (instruction). Ausubel (1963) believes that there is a parallel between the way the subject matter is organized and the way the people organize knowledge in their minds. Each of the academic disciplines has a structure of concepts (and/or propositions) that are organized hierarchically. He emphasizes that the way the people organize knowledge in their minds reflects the way the subject matter is organized. In other words, it can be said that at the top level, the new material is non-arbitrarily related to the learner's cognitive structure, that is, both on the nature of the material to be learned and on the nature of the particular learner's cognitive structure.
of each discipline are a number of very broad concepts that include or subsume the inclusive concepts at the lower stages of organization. Ausubel (1963) conceptualizes a discipline as levels of these hierarchically organized concepts that begin with perceptual data at the bottom and proceed through increasing levels of abstraction to the most abstract concepts at the top. Thus, we may imagine a discipline as being composed of a pyramid of concepts all linked together, with the most concrete concepts at the bottom and more abstract concepts at the top.

Ausubel (1963) describes the mind as an information-processing and storing system, that is, analogous to the conceptual structure of an academic discipline. It is a hierarchically organized set of ideas that provide anchors for new information and ideas, as these are received, and that serves as a storehouse for them. As this information processing system acquires new information and new ideas, it reorganizes itself to accommodate the new ideas. Thus, the system is in a continuous state of change. However, Ausubel (1963) maintains that new ideas can be usefully learned and retained only to the extent that they can be related to already available concepts or propositions that provide ideational anchors. Although a new set of ideas can be incorporated into an existing cognitive structure and, in fact, must be so incorporated for learning to persist. On the other hand, if the new material conflicts too strongly with the existing cognitive structure or is so unrelated that no linkage is provided, then the information or ideas may not be incorporated or retained. To
prevent this from occurring, the teacher must organize a sequence of knowledge and present it in such a way that the ideational anchors are provided. In addition, the learner must actively reflect on the new material, thinking through these linkages, reconciling differences and discrepancies with existing information, and no similarities.

Two principles are suggested for programming content in the subject fields in such a way that the concepts become a stable part of a student's cognitive structure and that material has psychological meaning. The first is progressive differentiation and the second, integrative reconciliation. Progressive differentiation means most general ideas of the discipline are presented first and then are progressively differentiated in terms of detail and specificity. Integrative reconciliation simply means that new ideas should be consciously reconciled and integrated with previously learned content. In other words, the sequence of the curriculum is organized so that each successive learning is carefully related to what has been presented before. If the entire learning material has been conceptualized and presented according to progressive differentiation then integrative reconciliation follows naturally, though not without some intent on the teacher's part. Gradually, as a result of both of these principles, the discipline is built in the mind of the learner. It must be kept in mind that the discipline and the sequence of instruction are built from the top down, rather than the bottom up. The most inclusive concepts, principles, and/or propositions are presented first.
1.3.3 Definition of Advance Organizer Model

An Advance Organizer Model begins with the presentation of an Advance Organizer. According to Ausubel (1978), Advance Organizer is an introductory material at a higher level of abstraction, generality and inclusiveness than the learning material presented before the actual learning task. Its purpose is to explain, integrate and interrelate the material in the learning task with previously learned material also, to help the learner discriminate the new material from previously learned material. Eggen et al. (1979) said that an Advance Organizer Model is a statement preceding the lesson that is designed to help the learner store and retrieve material which is learned. Further, an Advance Organizer statement is designed to introduce the material which follows, and is broad enough to encompass this information.

From the above given definitions, it is obvious that as the name suggests, the Advance Organizer Model is given before the representation of actual learning task and it helps in organizing the relationship between previous and new knowledge.

1.3.4 Characteristics of the Advance Organizer Model

There are certain characteristics on the basis of which the Advance Organizer Model should be formulated. According to Ausubel (1978), the Advance Organizer Model should be at a higher level of abstraction, generality and inclusiveness than the learning material and it should relate to the previous background of the student. Mayer (1979) maintains that types of Advance Organizer Models generally
have five characteristics which are as follows: (i) short set of verbal or visual information; (ii) presented prior to learning a larger body of to-be-learned information; (iii) contain no specific content from the to-be-learned information; (iv) provided a means of generating logical relationship among elements in the to-be-learned informations; (v) influence the learners' encoding process.

1.3.5 Types of Advance Organizer Models

There are two types of Advance Organizer Models—expository organizers and comparative organizers. Expository organizers are used when the new learning material is completely unfamiliar, and attempts merely to provide inclusive subsumers that are both related to existing ideas in cognitive structure and to the more detailed material in the learning passage (Ausubel, 1960, 1963, 1968; Ausubel and Fitzgerald, 1962). Comparative organizers, on the other hand, are used when new learning material is relatively familiar or can be related to previously learned ideas. In this case, the aim of the organizer is not only to provide ideational scaffolding for the specifics in the learning passage, but also to increase discrimination between the new ideas and the previously learned ideas by pointing out explicitly the principal similarities and differences between them (Ausubel, 1963, 1968, Ausubel and Fitzgerald, 1961; Ausubel and Youssef, 1963; Fitzgerald and Ausubel, 1963).

Eggen et al. (1979) described three basic types of organizers: the concept definition, generalization and analogy.
1.3.6 Concept of Definition

Definitions will be valuable organizers of content when the material to be taught is new or unfamiliar to the student. Ideally, the defining statement should possess the characteristics of a concept definition, i.e., it states concept, super-ordinates concepts and characteristics of the concepts. Definitions are most valuable when they utilize terms which are already known to students.

Generalization: Because of their ability to summaries large amounts of information, generalizations can also be effectively used as Advance Organizers. While using generalizations as Advance Organizers, teachers must be certain that each of the concepts in the generalization is understood by the students. Advance Organizers are effective in two major ways. One is that they provide cognitive road maps for material which follows. Generalizations, because of their summarizing nature, are maximally effective here. The other function that Advance Organizers perform is to link new material with material already learned. Generalizations, when they include concepts already familiar to students, are also effective in this respect. The following is an example of an Advance Organizer Method used for introducing a lesson on 'man's' interaction with the physical environment'.

Example: The more technology and knowledge man possesses, the less limiting are the influences of nature on man's life.

Analogy: Perhaps the most effective type of Advance Organizer mode is the Analogy, or what Ausubel calls a Comparative Advance Organizer. Analogies are effective as Advance Organizers because they
can be customized to fit the background of a particular student population. In general, the value of an analogy as an Advance Organizer is dependent upon two factors: (a) the familiarity of the analogy to students: and (b) the degree of overlap between the ideas to be taught and the analogy used. The more familiar the analogy, the easier it will be to use the analogy to retrieve information. Analogies have an additional advantage as Advance Organizers, because they can be clearly designed and staged, and are, therefore, potentially more appealing and motivating to students than definitions or generalizations. When carefully planned, they may provoke interest and add measure of humour to the activity, which is an advantage in any learning experience. The following is an example of an analogous Advance Organizer used to explain the cognitive skills.

For example, Cognitive skills are like physical skills in which the more you practice them, the better they become and the harder they are to forget.

1.3.7 Instructional Effects

The Advance Organizer Model was developed for getting the following instructional effects in the classroom;

(i) Conceptual Structures

The Advance Organizer Model helps in linking the new information with the cognitive structure of the person. If this happens, learning by rote will not take place but active reception learning will be promoted. Once concepts become clear, understanding improves. Consequently, the learning will strengthen.
(ii) Meaningful assimilation of Information and Ideas

At present, students' understanding of concept is poor. Consequently, students cram the content which they forget after sometime. That is, students are not able to assimilate the content. When students are taught through the Advance Organizer Model, the understanding of concepts improves, which helps in meaningful assimilation of information and ideas.

Nurturant Effects

Apart from instructional effects, there are also the Nurturant Effects of the Advance Organizer Model. These are as follows:

(i) Habits of Precise Thinking

It is evident from characteristics of the Advance Organizer Model that Advance Organizer is abstract and inclusive of learning material. Students start learning the technique of abstracting learning material and presenting it in precise words. This may lead in the development of habit of precise thinking.

(ii) Interest in Inquiry

The conceptual understanding of students improves when taught through the Advance Organizer Model. Not only this, even meaningful assimilation of information and ideas take place. Overall understanding of students strengthens. It helps in developing interest in inquiry.
1.3.8 Description of the Advance Organizer Model

Based on the Meaningful Verbal Learning Theory propounded by David P. Ausubel, Joyce and Weil (1978) developed the Advance Organizer Model. Its description has been given in respect of Syntax, Principles of Reaction, Social System and Support System.

Syntax

The Advance Organizer Model has been structured to comprise three phases:

Phase One: Presentation of Advance Organizer

- Clarify aims of lesson
- Present Organizer:
  (i) Identify defining attributes
  (ii) Give examples
  (iii) Provide multi-context
(iv) Repeat terminology of sub-sumer

- Prompt of awareness of relevant knowledge and experience from learners’ background.

Phase Two: Presentation of the Learning Material

- Make logical order of learning material explicit to student.
- Maintain attention of students.
- Make organization explicit.

Phase Three: Strengthening Cognitive Organization

- Using principles of integrative reconciliation.
- Promote active reception learning.
- Elicit critical approach to subject matter
- Clarify.

**Principles of Reaction**

The Advance Organizer Model is more learner-centered than teacher-centered. The teacher’s responses to the learner’s reactions will be guided by the purposes of clarifying the meaning of the new learning material, differentiating it from and reconciling it with the existing knowledge, making it personally relevant to the students, and helping to promote a critical approach to knowledge. In reality, students should initiate their own questions in response to their own understanding of the subject matter. If not, the teacher can elicit students’ reactions through questions or can explain briefly whatever has been taught.
The Social System

Although, in using the Advance Organizer Model, students remain active, the whole process is controlled by the teacher. The teacher should continuously relate the learning material to the Organizer, and help students in differentiating it from previously learned material. During the presentation of the Advance Organizer and learning material, the interaction is one-way but to a lesser extent. But in the third phase, the interaction is two-way because students have to integrate the learning material with their prior knowledge. This is possible only if students are active in the classroom. The teacher should see that all students take part equally without having dominance of a particular student or a set of students.

The Support System

The learning material has to be properly structured because the requirement of this model is well-organized learning material. The effectiveness of the Advance Organizer Model depends upon the extent to which it represents the learning material. The most difficult part is the development of the Advance Organizer Model. The teacher should be trained in developing the Advance Organizer Model as well as in organizing the learning material. Some readymade Advance Organizer Model may also be made available to the teacher.

Applicability and Selection Criteria

The Advance Organizer Model was designed for the use in face-to-face teaching in the form of lectures and explanations. This model can be used in developing instructional material. In India, some
work has been done in this direction. This model has great potential in teaching concepts, relationships and imparting information effectively. It can be used to teach any subject. The most difficult part is the development of the Advance Organizer Model.

1.3.9 The Role of Teacher

1.3.9.1 The Role of Teacher During Phase One

This phase consists of mainly three activities. These are:

- Clarifying the aims of the lesson.

The teacher begins by clarifying the aims of the lesson. This can be done in a number of ways. Some are: giving the topic as a title, generalizing, making a statement, summarizing the main points, listing the points on the blackboard, showing a film, narrating a story, defining objectives, asking students about related topics or using a combination of these strategies.

- Presenting the advance organizer.

After clarifying the aims of the lesson, the Advance Organizer is to be presented. The teacher can present Advance Organizer in a number of ways. Some of the ways are: writing the Advance Organizer on the blackboard, speaking loudly in the class, distributing pictures, typed or printed copies among students and asking students to read it silently, projecting it with the help of an overhead projector or a slide projector, or a combination of these.

- Prompting awareness of relevant knowledge and experience.

The teacher, after presenting the Advance Organizer, lists the major attribute(s) of the noun. Whenever this is done, one can say
that the teacher is identifying defining attribute(s). Next, the teacher
gives examples from daily life situations which will help students to
comprehend the Advance Organizer. “There are objects called by
different names in different parts of a country”. The teacher can make
use of such situations to promote awareness of relevant knowledge
and experience from the learner’s background.

1.3.9.2 Role of the Teacher During Phase Two

In this phase the teacher:

➢ Makes logical order of learning material explicit to students.

The teacher may make logical order of learning material explicit
to the students in a number of ways. The teacher may list the points
of learning material in a sequence which, according to him, is the
best. The flowchart of learning material may be prepared and used for
making the logical order of learning material explicit to the students.
For a highly structured content, there is less scope of presenting the
learning material in different logical orders. In the case of a less
structured learning material, the logical sequence may change with
respect to the teacher, target group, etc.

➢ Maintains attention and makes organization explicit to students.

According to the organization, the teacher presents the content.
During the presentation, the students' attention is to be maintained.
This can be done through the method, approach and technique used
during the process of presentation. Other techniques for maintaining
attention are varying stimuli (movement, gesture, tone of voice), using
other media to supplement the presentation, using teaching aids,
involving students during the process of presentation, and inserting questions on the lecture. The teacher can invent new ways of maintaining attention. Without maintaining attention, learning on the part of students cannot be ensured. During teaching of the noun and kinds of nouns the teacher may use charts, real objects, slides, etc., and also ask questions during the lecture.

1.3.9.3 Role of the Teacher During Third Phase

During this phase teacher can use:

➢ Principles of integrative reconciliation.

The facilitation of integrative reconciliation of new content with the content in the existing cognitive structure can be done effectively in the following ways:

(i) The teacher can remind students of the whole content that has been taught to the students and also its sequences. It is equivalent to recapitulation of the main points of the lesson. It should be done quite consciously, by reminding students that “today you studied about the noun, and kinds of noun” and so on.

(ii) The teacher can ask students to summarize the main points of the lesson. This should be done using the terminology of the subject. The sequence in which points are summarized by the students may be different from that of the teacher. Wherever the sequence is necessary, the teacher should insist that students repeat the main points in the same sequence as taught by the teacher.
(iii) Whenever the teacher defines any concept, students may be asked to repeat the definition given by the teacher or they may be allowed to define it in their own words. Sometimes it is desirable to ask the essential characteristic(s) of the concept and then help students to define the concept in their own words by incorporating the essential characteristics of the concept.

(iv) As mentioned in Phase One, the Advance Organizer should be presented to the students at the beginning of the lesson. In this phase, students should be asked to verbalize how the Advance Organizer helped them in learning the subject matter.

➢ Promote active reception learning.

Active reception learning can be promoted by the teacher in the following ways:

(i) The teacher can ask students to relate the new learning material with a single aspect of their existing knowledge. This helps in retention of the content for a longer duration.

(ii) The teacher can ask students to give examples of the concept on their own. If students give additional examples of the concept, then it reflects their understanding of the concept.

(iii) Whatever has been taught in the class, students may be asked to describe it in a nutshell, in their own words. The teacher may identify the gap in the verbalization of the facts and make relevant corrections.
(iv) The students may be encouraged to examine the content from alternative points of view. This may encourage divergent thinking. It also helps in broadening the cognitive map of the students.

(v) Sometimes, the learned content may contradict the students’ experience or knowledge. If this be so, students may be encouraged to see the contradictions and the teacher should help in the resolution of the contradictions.

➢ Elicit critical approach to subject matter.

A critical approach to the subject matter may be elicited by the teacher in a number of ways:

(i) The teacher may ask students to recognize assumptions that may have been made in the learning material. This encourages analysis. In the case of a lesson on noun, assumption may be that everything is called by a name.

(ii) After recognizing the assumptions, these are to be challenged. Let us now try to challenge the assumption of a ‘name’. Try to think whether there is anything which does not have a ‘name’. It encourages divergent thinking.

(iii) Lastly, if there are contradictions between the subject matter and experience, try to resolve these. This is usually done by the teacher by saying that there are certain exceptions.

➢ Clarify the doubts of students.

Finally, students may have questions on parts of the learning material or content that are unclear to them. The teacher can clarify it
further by giving additional and / or new information, re-phrasing previously given information, or applying the idea to a new problem.

1.3.9.4 Caution may be Taken

It is not possible or desirable to use all these techniques in one lesson. Constraints of time, topic, and relevances to the learning situation will guide their use. However, it is important to keep in mind the four goals of this phase and use them whenever need be. Further, at the start of phase three, the teacher may ask students to clarify their doubts. Once this is done, the process of the integration of the learning material with existing knowledge will begin. Until students become familiar with the phases or procedure of the Advance Organizer Model, the teacher has to initiate questions or comments that promote active receptive learning and a critical approach to the subject matter.

1.3.10 Need and Significance of the Present Study

According to David P. Ausubel there is a parallel between the subject matter organized and the way learners organize the knowledge in their minds, especially cognitive structure. Every discipline has a structure of concepts that are organized hierarchically such as:

- Simple to difficult
- Concrete to abstract
- Known to unknown

Ausubel believes that the structural concepts of each discipline can be identified and taught to students, which then become an information processing system for them. Keeping in view the
theoretical background of advance organizer model the present study intends to enhance the strengthening of cognitive structure and retention of new information. Advance organizer as introductory material presented ahead of the learning task and at the higher level of abstractions and inclusiveness of the learning task itself.

The present study intends to explain integrity and inter-relate the material in the learning task with previously learnt material. The present study has a significant contribution to the field of classroom teaching and content organization. The present study contributes, to the field of development of an intellectual structure and increases the probability that the students will learn those structures and the thinking process associated with them. They will retain material more meaningfully and effectively.