Chapter- VI
SUMMARY, CONCLUSION AND IMPLICATIONS
6.1: INTRODUCTION:

Teaching is a complex activity carried on in the complex situation of the school by human beings (teachers) directed towards students who are constantly undergoing complex changes. In the present fast-growing age, lot of information has to be collected from multivarious sources, integrated and then processed in a gainful manner not only within self but to the next generations. Teachers have been shouldered with the responsibility of processing it through a formal system to the level of the students. Teachers handle information coming from outside, organise data, enable the learner to raise problems, generate concepts and solutions to the problems with the use of verbal and non-verbal symbols. He is a powerful agent in determining the processing of information by reducing the amount of natural behaviour of children instituting the instructional patterns, building a social system and regulating the instructional process.

The core of the process of teaching is the arrangement of environments within which the student can interact (Dewey, 1916). A model of teaching is a plan or pattern that we can use to design face to face teaching in classrooms or tutorial settings and to shape instructional materials including books, films, tapes, computer mediated programs, and curricula (long term courses of study) (Bruce Joyce et. al. 1992). A model of teaching consists of guidelines for designing educational activities and environments. The models of teaching are meant for creating environments. They provide
specifications for constructing learning situations. The models of teaching are developed by the people who worked in different fields. They are based on practice, empirical work, theories and researches. On the basis of theories given by various psychologists, Joyce & Weil have classified the models of teaching into four families namely -

a) The Social Interaction family  
b) The information Processing family  
c) The Personal family, and  
d) The Behavioural Systems family

We are living in an era in which information is exploding exponentially and hence the student is pondering is a sea full of new concepts and facts. Teachers also find teaching these facts and concepts difficult and hence the model under the information processing family are relatively important in present context. Joyce and Weil has defined the information processing family of models as the way people handle stimuli from the environment organise data, sense problem and solve them. It provides knowledge and understanding about new information as facts and stimuli for students to solve problems. They share an orientation toward the information processing of students and ways they can improve their ability to master information. Joyce & Weil identified seven models under this family. Some information processing models are designed to develop inductive mental processes and reasoning like Hilda Taba's inductive Thinking model and Suchman's Inquiry Training Model, while some are concerned with acquisition and retention of concepts like Bruner's Concept Attainment Model and Ausubel's Advance Organiser Model.
The primary goal of schooling is the acquisition of information and the subject of history is full of information thus, various models of information processing family are useful in teaching of history. However, the model based on the theory of David Ausubel known as Advance Organiser Model (AOM) is of relative importance as it helps teacher to organise and convey large amount of information as meaningfully and efficiently as possible. The advance organiser model is designed to strengthen students cognitive structure various studies conducted by Ausubel and others have established the superiority of this model in teaching of social studies in America, however, the researches on this model in India are meager in number and no research on the effectiveness of this model in teaching of history has been reported in literature. Hence it was decided by the researcher to study the effectiveness of advance organiser model in teaching history and compare it with traditional method of teaching based on Herbartian step.

6.2 : THE PROBLEM :
6.2.1 : STATEMENT OF THE PROBLEM :

The problem of the present research can be specified in following words :

"Effectiveness of advance Organiser Model for teaching social studies at the secondary level."

6.2.2 : OPERATIONAL DEFINITION OF TERMS :

a) Effectiveness :

The term effectiveness refers to the effect of teaching methods on the achievement and retention of students of secondary level in social studies.
b) **Advance Organizer Model**: is the Model of teaching developed by Bruce Joyce and Marsha Weil on the basis of Ausubel's theory of Meaningful verbal learning. The syntax of the Model will be as described in the book "Models of teaching by Joyce & Weil (1992).

**Secondary Students**: Secondary students means the students of class IX and X of the 10+2+3 system of education of the country. For the purpose of present study, only students of class X of U.P. Board of Secondary Education have been taken.

**6.3: OBJECTIVES OF THE STUDY**:  
The main objective of the present investigation were:

1. To develop lesson plans on the selected topics of social science on the basis of Advance Organizer Model (AOM).
2. To develop lesson plans on the selected topics of social studies on the basis of Conventional Method using Herbartion approach.
3. To construct an objective type achievement test on the selected topics in social science (History).
4. To find out the instructional effect of AOM based on immediate testing.
5. To find out the instructional effect of CM based on immediate testing.
6. To find out the relative effectiveness of AOM, and CM in teaching of social science at secondary school level, when observed immediately after the instruction.
7- To find out the instructional effects of the AOM in terms of retention of learning among students after a gap of 15 days from instruction.

8- To find out the instructional effect of CM in terms of retention of learning among students after a gap of 15 days from instruction.

9- To compare the relative effectiveness of AOM Method and CM Method in teaching of social science at secondary level in terms of retention in pupil learning measured after a gap of 15 days from instruction.

10- To find out the students reaction towards usability of advance organizer model.

6.4: HYPOTHESES TESTED:

Objectives 1, 2, 3 were attained by developing treatment and observation tools that were required for the purpose of data collection in this study. The rest of objectives i.e., 4 to 10 were realised by testing the following hypotheses.

H$_1$ There is no significant difference between the means of achievement scores of the groups at pre-test stage.

H$_2$ There is no significant difference between the mean achievement scores (post test I) of students taught through Advance Organizer Model and the conventional Method.

H$_3$ There is no significant difference between the means of pretest and post test achievement scores of the students taught through (a) AOM; and (b) Conventional Method.
There is no significant difference between the mean of gain scores of students taught through AOM method and conventional method.

There is no significant difference between the mean retention scores of students exposed to Advance Organizer Model (AOM) and Conventional Method (CM).

Students taught through advance organizer model have favourable reaction towards its usability.

6.5 : RESEARCH DESIGN :

6.5.1 : THE PRE TEST POST TEST EXPERIMENTAL DESIGN :

For the purpose of present study, the pre test - post test equivalent group design suggested by Best (1983, P. 70) was adopted with certain modifications. The paradigm of the design is as under:

\[
\begin{array}{cccc}
R & O_1 & X & O_2 \\
R & O_3 & C & O_4 \\
& & & O_5 \\
& & & O_6 \\
\end{array}
\]

Where,

X Gain = \( O_2 - O_1 \)

C Gain = \( O_4 - O_3 \)

\( O_1, O_3 \) are pre test

\( O_2, O_4 \) are post test

\( O_5, O_6 \) are retention tests

R Stands for randomisation - random selection of subjects or assignments of treatment to the one experimental groups and one control group.

X Represent exposure of group 1 to first experimental variable i.e., the Advance Organizer Model.
C represents exposure of group 2 to control variable i.e. the conventional method.

-------- A line between levels indicates equated groups.

→ Indicates a gap of 15 days time.

6.6 : VARIABLES : INDEPENDENT AND DEPENDENT :

The main independent variable for present study were the models of teaching selected for investigation - the Advance Organiser Model (AOM) developed by Ausubel (1963); and the conventional Method. The experimental variable of method were manipulated in order to compare their relative instructional effects.

The dependent variable in the present study was the achievement score of the students on the achievement Test in history prepared by the researcher. Another dependent variable/ criterion variable was the retention in achievement after 15 days since the treatment was given. The extraneous variables were the area, sex, intelligence etc. which were controlled by randomisation.

6.7 : POPULATION AND SAMPLE :

The population for the present research study was the secondary school students i.e., students of class IX & X of the U.P. Board of Secondary Education. The sample for the present study was randomly selected from the students studying in class X in various schools of Gorakhpur city. A purposive sample of 80 students was drawn from the population. Two intact sections of class X of two intermediate colleges of Gorakhpur city constituted the sample for the present investigation. All the two sections were equivalent in respect of age, sex, locality and achievement of pre-test of history.
Only 40 students from each section, who took part in the entire experimental process, were finally selected for the analysis of data.

6.8 : DATA COLLECTION :

Every body, whether he is a doctor, engineer or a farmer, adopts or employs certain aids or instruments known as tools to arrive at intended results. Likewise a researcher applies some techniques or devices for gathering data from the relevant field. These data gathering devices are called research tools. These tools, depending on the nature of the research, may be either already available or required to be developed by a researcher himself. In either situation, the main consideration in their use are relevance, reliability and validity.

The present investigation is an experimental research in which instructional effects of two strategies of teaching have been compared. For comparing the effectiveness of these strategies, an achievement test on the selected units of history was required. Due to unavailability of such a suitable achievement test, the researcher deiced to construct it. Also for teaching the lessons effectively, lesson plans based on the models of teaching viz, the Advance Organizer Model; and the Conventional Method were required. 16 such lesson plans were developed by the researcher herself.

Thus two types of tools - i) treatment tool and ii) observation tools were constructed and used in this study.

6.9 : THE FINDINGS:

The results of the present study have been discussed in the preceding paragraphs of this chapter and on the basis of that results the researcher could draw following conclusions:
1. Good objective type achievement test on the selected units of Social studies can be prepared and used for testing learning outcomes.

2. Lesson plans based on AOM Method as well as Conventional Method can be prepared easily and used efficiently.

3. The AOM and the CM methods are quite feasible in teaching of social studies at Secondary School level.

4. Both are methods of teaching AOM and CM have been found to be effective in the teaching of social studies at Secondary School level.

5. The Advance Organizer Model methods has been found to be more effective than the conventional method in the teaching of social studies Secondary School level.

6. As regards retention in pupil learning, the AOM has proved to be more effective and efficient than the CM.

7. Students have shown a favourable reaction towards the adoptability of the AOM method.

On the basis of above findings the researcher was of the view that both the methods are effective in teaching of social studies but the AOM method has got an edge over the conventional in terms of immediate gain as well as in terms of the retention of the pupils learning.

6.10 : EDUCATIONAL IMPLICATIONS :

The present study belongs to the area of instruction technology and the adaptability of the model used in the study could be the best
implication of the research. The study has been delineated to the extent that method of teaching have been studied over a small sample. Only eight lesson of social science at the secondary stage have been taught on the basis of AOM Method. The methodological limitations and control of certain variables also put constraints on the implication. However the implication the present study could be as follows:

A: FOR TEACHER EDUCATION AND TEACHER EDUCATORS:

The findings of the present study indicate that the model of teaching under study are suitable for teaching of social science. The AOM Method of teaching could be integrated into the teaching method of social science subjects at B.Ed. level where only traditional method of teaching is being followed. Alternatively, Component of teacher education curriculum at B.Ed, level. Some of the university have already made effort in this direction but at M.Ed. level. Models of teaching have been introduced as necessary component of theoretical paper but the practical programmes have not been re oriented accordingly. It should be necessary for the student teacher to reasonably practice these and other selected models for his own benefit. The present emphasis on the herbartian method should soon be replaced by evenly distributed efforts over other selected models of teaching.

B: IN-SERVICE EDUCATION OF TEACHERS:

As has been already pointed out, the teachers do not use a single method but a combination of methods during their teaching. The classroom environment has been characterised as less motivation
and routine for children. The higher mental process like analysis synthesis etc., are not well attended. Information is transmitted as symbols rather than concepts. The main reason for this that at most of the time teacher use lecture method coupled with test book creating a monotonous environment for both pupils and teacher. The introduction of new models of teaching is expected to meet these challenges partly. Therefore school administrations, school administrators, the curriculum designers and examining bodies should be recommended to develop required competence and appropriate for this new innovation.

6.11 : SUGGESTIONS FOR FURTHER RESEARCH :

Through the present study seems to have contributed to existing frontier of knowledge in the area of the models of teaching and has successfully achieved all the specified objectives of this research, several related issues emerged during the course of study which could not be given due attention due paucity of time and other limitations. The following suggestion for further research may be offered with a view to stimulate thinking and advancement in this area.

1. Experimental studies may be conducted to find out the effectiveness and efficiency of the AOM in other subject areas like sciences and languages and at other stages.

2. Effectiveness of these Models may be compared with certain other models of the information processing family. Atlast it would be worth quoting the observation of Vaidya (NCERT, 1997, p. 360) regarding the researches on teaching strategy
which runs as under: "it appears difficult to give a verdict on superiority of any method of teaching; for this long-term studies based on some sort of theory (say instruction) is required."

This observation guides us towards some long-term project studies regarding teaching strategies which may be undertaken by future researchers and academicians.