

A Study on The Effectiveness of Ausubel's Advance Organiser Model

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ABSTRACT

Any instructional method a teacher uses, has advantages, disadvantages, and requires some preliminary preparation. Often times, a particular teaching method will naturally flow into another, all within the same lesson, and excellent teachers have developed the skills to make the process seamless to the students. Which instructional method is “right” for a particular lesson depends on many things, and among them are the age and developmental level of the students, what the students already know, and what they need to know to succeed with the lesson, the subject-matter content, the objective of the lesson, the available people, time, space and material resources, and the physical setting, Another more difficult problem is to select an instructional method that best fits one’s particular teaching style and the lesson-situation. There is no one “right” method for teaching a particular lesson, but there are some criteria that pertain to each that can help a teacher make the best decision possible. The models of teaching have been developed to make the teaching-learning process more effective. The core of the teaching process is the arrangement of environments within which the students can interact and study how to learn (Dewey, 1916). A model of teaching is a description of learning environment. The description has many uses ranging from planning curricula, courses, units and lessons to designing instructional materials books and workbooks, multimedia programme and computer assisted learning programs (Joyce & Weil, 1992, p.11). A model of teaching is a plan or pattern of teaching that we can use to design face-to-face teaching in classrooms or tutorial settings and to shape instructional material including books, films, tapes, computer-mediated programmes and curricula long-term courses of study.

Keywords: *Effectiveness, Ausubel Advance Organizer model*

Advance Organizer Model

Ausubel believes that learning should progress not inductively, recommends that learning should progress deductively, i.e., from General to Particular. The deductive method is also known as rule method, Ausubel has proposed his method of learning as expository to encourage meaningful but not rote learning. Ausubel’s expository method has four advantages. At the first instance it promotes interaction between teachers and students.

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Secondly expository teaching makes great use of examples. Thirdly expository teaching is deductive. Finally, it is sequential. That is, in this method, we follow some steps. One step at a time is a golden principle of learning.

Objectives

The main objectives of the present study were-

- To find out the instructional effect of Advance Organizer model on the basis of the achievement of the students.
- To find out the instructional effect of traditional- method on the basis of the achievement of the students.
- To compare the effectiveness of the Advance Organizer Model method and traditional method in teaching of mathematics.

Hypotheses

There will be significant difference between the achievement of the students taught through Advance Organizer Model and the traditional method. For statistical analysis, following null hypotheses were framed-

- There will be no significant difference between Pre-test and Post-test Mean Achievement Scores in Mathematics of Experimental Group students.
- There will be no significant difference between Pre-test and Post-test Mean Achievement Scores in Mathematics of Controlled Group students.
- There will be no significant different between Pre-test Mean Achievement Scores in Mathematics of Experimental Group and Controlled Group students.
- There will be no significant difference between Post-test Mean Achievement scores in Mathematics of Experimental Group and Controlled Group students.

Research Design

For the purpose of present study, the pre-test post-test equivalent group design was adopted. The paradigm of the design is as follows-

R O₁ X O₂

R O₃ C O₄

Here,

O₁ & O₃ = pre-test scores

O₂ & O₄ = post-test scores

R - stands for randomization – random selection of subjects or assignments of treatment to one experimental group and control group.

X - represents exposure of group one to experimental variable i.e., the Advance Organizer Model.

C - represents exposure of group two to control variable i.e., the Traditional Method.

Population and Sample

The population for the present study was the students of Class IX of State Board. Two sections of Class IX were selected. One section was taught through Advance Organizer Model method and other section was taught through Traditional Method. Four lessons of Mathematics were taught through Advance Organizer Model method to the Experimental Group and through Traditional Method to the Controlled Group.

Tools

Two types of tools were prepared to collect the data. One was Achievement Test for testing achievement at Pre-test and Post-test stage and the other was Treatment Tool i.e., preparation

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of Lesson Plans on four selected topics of Mathematics based on Advance Organizer model. Topics were: Set Language, Trigonometry, Algebra and Mensuration

RESULT AND DISCUSSION

Achievement scores in Mathematics of both the groups taught through Advance Organizer Model and Traditional Method were compared by calculating Mean, SD, and t.

Results are presented in the accompanying tables:

Pre-test and Post-test Achievement Scores of Experimental Group are shown in table 1. Mean Achievement Scores in Pre-test and Post-test are 12.43 and 31.38 and Mean difference of Pre-test and Post-test scores is 18.95. The 't' value is 33.41 which is significant at 0.01 level of significance. Thus hypothesis 1 is rejected and it can be said there is significant difference in the Pre-test and Post-test Mean Achievement Scores of the Experimental Group.

The result shown in table 2 reveal that there is significant difference in Pre-test Post-test achievement test scores of the Controlled Group. Mean Achievement Scores in Pre-test and Post-test are 12.55 and 27.83. The 't' value is 18.33 which is significant at 0.01 level of significance. Thus hypothesis 2 is rejected. It reveals that there is significant difference in Pre-test and Post-test Mean Achievement Scores of the Controlled group.

Schematic Presentation of the Experiment

S.No.	Phase	Activity		
1.	Pre-treatment	Pretest of achievement of the information to be taught was administered on selected sample. Groups (experimental and controlled) were formed and equated on the basis of age, sex and pre-test achievement scores.		
2.	Treatment Stage Concept Teaching	Taught the selected topics to both the groups		
		<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Group A (AOM) N = 40 By Advance Organizer Model</td> <td style="width: 50%; border: none;">Group B (TM) N = 40 By Traditional Model</td> </tr> </table>	Group A (AOM) N = 40 By Advance Organizer Model	Group B (TM) N = 40 By Traditional Model
Group A (AOM) N = 40 By Advance Organizer Model	Group B (TM) N = 40 By Traditional Model			
3.	Post-treatment	Immediately after the treatment, posttest of achievement was administered on both the groups to observe the effect of treatment.		

Table -1: Comparison of Pre-test and Post-test Achievement Scores of Experiment Group

Test	N	Mean	SD	D	't' value
Pretest	40	12.43	4.54	18.95	33.41**
Posttest	40	31.38	3.26		

**Significant at.01 level

Table -2: Comparison of Pre-test and Post-test Achievement Scores of Controlled Group

Test	N	Mean	SD	D	't' value
Pretest	40	12.55	4.49	15.28	18.33**
Posttest	40	27.83	3.40		

**Significant at.01 level

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Table -3: Comparison of Pre-test Achievement Scores of Experimental Group and Controlled Group

Groups	N	Mean	SD	D	't' value
Exp.	40	12.43	4.54	0.12	0.118*
Cont.	40	12.55	4.49		

**Not Significant*

Table -4: Comparison of Post-test Achievement Scores of Experimental Group and Controlled Group

Groups	N	Mean	SD	D	't' value
Experimental	40	31.38	3.26	3.55	4.78*
Controlled	40	27.83	3.40		

**Significant at .05 level*

Table 3 indicate that there is no significant difference in achievement scores at Pre-test level taught through Advance Organizer Model and Traditional Method. Mean Achievement Scores of both the groups are 12.43 and 12.55 respectively and the 't' value is 0.118 which is not significant at .05 level of significance. Thus, hypothesis 3 is accepted and it can be said that there is no significant different between Pre-test achievement scores of groups taught through Advance Organizer Model and Traditional Method.

Table 4 indicates that there is significant difference in Mean Achievement Scores at Post-test level taught through Advance Organizer Model and Traditional Method. Mean difference is 3.55 and t value is 4.78 which is significant at 0.01 level. Thus hypothesis 3 is rejected. Mean Achievement score of the Experimental Group is greater (31.38) than the Controlled Group (27.83) which suggests that Advance Organizer Model is more effective than the Traditional Method of teaching.

CONCLUSIONS

On the basis of results the following conclusions were drawn.

- There is significant difference in the Pre-test and Post-test Mean Achievement Scores of the Experimental Group (taught through Advance Organizer Model).
- There is significant difference in Pre-test and Post-test Mean Achievement Scores of the Controlled Group (taught through Traditional Method).
- There is no significant difference between Pre-test Mean Achievement Scores of Experimental Group taught through Advance Organizer Model and Controlled Group taught through Traditional Method.
- Advance Organizer Model is more effective than the Traditional Method of teaching as significant difference is found in Mean Achievement Score of both the groups.

The study revealed that both the groups taught through Advance Organiser Model and Traditional Method had gained significantly but the Advance Organiser Model is more effective than the Traditional Method as the difference favours the group which received instruction through the Advance Organizer Model. The main reason for the difference is that most of the teachers teach through the traditional method using lecture method coupled with textbook which creates a monotonous environment for both students and the teacher. In Advance Organizer Model teaching, material is arranged and presented on the basis of previously learned material of students to link the matter with students existing cognitive structure. This model is very useful for primary and secondary school students as it helps the

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students to understand and learn lessons easily by relating the new content with the previously learned material and concepts.

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Conflict of Interest

The author declared no conflict of interest.

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