

Effect of Advance Organizer Model of Teaching on Academic Achievement of Secondary School Students in Social Science

Mihir Kumar Mallick* and Amandeep

School of Education, Lovely Professional University, Phagwara, Punjab, India.

*Corresponding author : Mihir Kumar Mallick; mihir.mallick@gmail.com

Abstract

Advance Organizers are models which help students organize information by connecting it to a larger cognitive structure that reflects the organization of the discipline itself. An advance organizer is a cognitive instructional strategy used to promote the learning and retention of new information. According to Ausubel (1978), the Advance organizer is an introductory material at a higher level of abstraction, generally and inclusiveness, to the learning material presented before the actual learning task. Advance organizer model is more effective when the learner lacks prior knowledge transfer. Keeping in view the importance of Advance Organizer Model in teaching-learning process a study was conducted. The sample of the study included 60 students of class IX. Purposive sampling technique was used to collect data. Intelligence test was used for selection of experimental and control groups. The students were divided into two groups (30 students in each group) on the basis of intelligence test score. The experimental group was taught through Advance Organizer model and the control group was taught by using traditional method (lecture method). After completion of teaching a self developed achievement test was administered. For drawing out the result, t-test was used. Result showed that students exposed to Advance Organizer model possessed higher score than the students taught through traditional method in social science.

Keywords: Organize, information, intelligence, develop, administration

The Advance organizer model was propounded by David Ausubel (1963). This model is based on the theory of Meaningful verbal learning. His theory of meaningful verbal learning deals with three concerns: (1) how knowledge (curriculum content) is organized, (2) how the mind works to process new information (learning), and (3) how teachers can apply these ideas about curriculum and learning when they present new material to students (instruction). In this model the teacher provides an advance

organizer and he provides a set of hang pins termed as “intellectual scaffolding”, a structure on which the learner can hang the ideas and facts which would be presented during their lesson. The teacher plays the role of a lecturer or explainer. The lecture is to be organized in a way that pupils utilize the knowledge. The objective is achieved through strengthening the cognitive structure of the learner.

The primary concern of this model is to help teachers organize and convey large amounts of information as meaningfully and efficiently as possible. Advance organizer model is more effective when the learner lacks prior knowledge transfer. This model acts as an organizational tool. It is more efficient when used if the goal of instruction is the transfer of learning to new problems. An advance organizer, whether expository or comparative, can take many forms.

Importance of Advance Organizer model in teaching

Advance organizers strengthen cognitive structures and enhance retention of new information. Their purpose is to explain, integrate and interrelate the material in the learning task with previously learned material. The primary concern of this model is to help the teachers organize and convey large amount of information as meaningfully and efficiently as possible.

In this approach, the teacher is responsible for organizing and presenting what is to be learned. The learner’s primary role is to master ideas and information. Whereas, inductive approaches lead the students to discover or rediscover concepts and principles to the students directly. This model is designed to strengthen student’s cognitive structures. The Advance Organizer model is especially useful to structure extended curriculum sequences or systematically in the key ideas of a field. It increases the learner’s grasp of factual information linked to and explained by the key ideas. This model helps students differentiate new material from previously learnt material. The model can be shaped to teach the skills of effective reception to learning. This model can increase effectiveness in reading and watching films and in other reception activities. Through advance organizer model active learning can be promoted. A critical approach to knowledge is fostered by asking students to recognize assumptions or inferences that may have been made in the learning material, to judge and challenge these assumptions and inferences and to reconcile contradictions among them. Due to the importance of Advance organizer model in teaching learning process a study was conducted to achieve the following objectives:

Objectives

- To find out the effect of advance organizer model on academic achievement of secondary school students in social science.
- To compare the effectiveness of advance organizer model and traditional method of teaching (lecture method) of social science.

Hypothesis

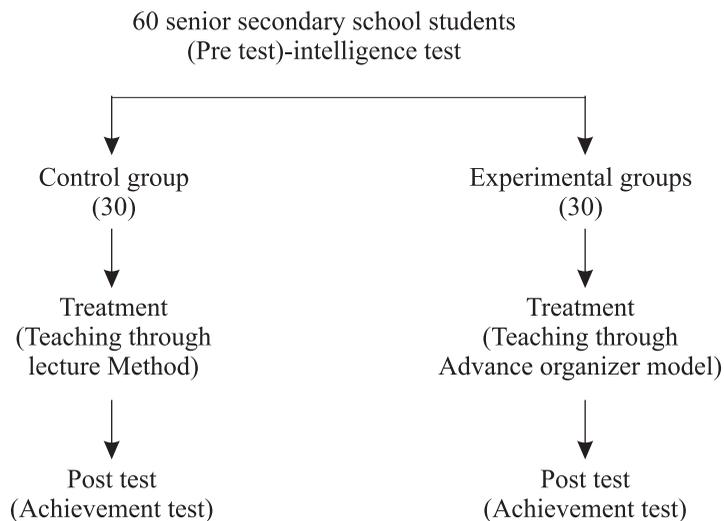
In order to achieve the framed objectives the following hypothesis was framed.

- There exists significant difference between the group of students exposed to advance organizer model and traditional method of teaching in their academic achievement in social science.

Design of the study

In the study experimental method was used. Pretest-posttest matched group experimental design was used in the study. Purposive sampling technique was used. The study was conducted on a sample of 60 students of class IX. Intelligence test developed by Dr. S.S. Jalota was used for formation of groups. Students of both experimental group and control groups were selected on the basis of their intelligence test score. The students were divided into two groups, i.e. experimental group and control group. The experimental group was taught through Advance Organizer model and the control group was taught through traditional method (lecture method). The effectiveness of Advance Organizer model on academic achievement in Social science was determined by administrating a self structured achievement test in social science to both the groups of students.

Design of the Study



Tools Used

- Intelligence test developed by Dr. S.S.Jalota.
- Achievement test (Self constructed).

Results and Discussion

Results of the study are presented below in three different parts:

- (i) Result relating to achievement of group of students exposed to “Advance Organizer Model” in Social science.
- (ii) Result relating to achievement of group of students exposed to “traditional method” in Social science.
- (iii) Result relating to group comparison and determination of the effectiveness of Advance organizer model.

(i) Results relating to achievement of group of students exposed to “Advanc Organizer Model” in Social science.

Table 1: Academic Achievement score of the Experimental group in Social Science

Group	No. of students	Treatment	Mean score	S.D
Experimental group	30	Advance organizer model	26.17	4.22

Table 1 shows the achievement test score of the group of students taught through advance organizer model in Social science. A look at the table reflects that the mean score of group of students exposed to advance organizer model is 26.17 and S.D is 4.22. By referring the norms of the achievement test, it was found that the mean score (experimental group) falls in the high category. This indicates that the group of students taught through advance organizer model show high academic achievement in social science.

(ii) Results relating to achievement of group of students exposed to “traditional method” in Social science.

Table 2: Academic achievement score of the control group in Social Science

Group	No. of students	Treatment	Mean Score	S.D
Control group	30	Lecture method	20.03	5.20

Table 2 shows the achievement test score of the group of students taught through traditional method. The table reflects that the mean score of group of students exposed to traditional method is 20.03 and S.D. is 5.20. By referring the norm of the achievement test; it was found that the group’s score (control group) falls in average category. This reflects that the group of students taught through traditional method show average academic achievement in Social science.

(iii) Results relating to group comparison and determination of the effectiveness of Advance organizer model.**Table 3: Difference between the Experimental and Control group**

Group	Mean	S.D	Mean difference	t-value	Interpretation Level of Significance	
					0.01 level	0.05 level
Control group	20.03	5.20	6.14	5.03	0.01 level	0.05 level
Experimental group	26.17	4.22			Significant	significant

Table 3 shows the data of experimental group and control group in academic achievement in social science of the secondary school students. The mean score of experimental group is 26.17 and control group 20.03. The S.D of experimental group is 4.22 and control group is 5.20. The mean difference between the groups is 6.14. The t-value is 5.03, which is significant both at 0.01 and 0.05 levels. This shows that the academic achievement of the group of students exposed to Advance organizer model is superior to the group of students taught through traditional method in Social science. Hence the hypothesis i.e. “there exist significant difference between the group of students exposed to advance organizer model and traditional method of teaching in their academic achievement in social science” is thus, accepted.

Conclusion

In the study an attempt was made to explore the effectiveness of advance organizer model on academic achievement of secondary school students in Social science. Advance organizer model was found to be effective in influencing the achievement level of class IX students in Social science. Achievement level of the students in social science taught through advance organizer model was found to be higher than the achievement level of students taught through the traditional method. The students of experimental group were looking well motivated and ready to learn through the advance Organizer model.

References

- Akiba, M., Le T. K., Baker, D. P. and Goesling, B. 2002. Student Victimization: National and School System Effects on School Violence in 37 Nations. (EJ667264). *American Educational Research Journal*. **39**(4): 829-53.
- Ausubel, D.P. 1978. In defense of Advance organizer: a reply to the critics. *Review of Educational Research*. **48**:251-257.

- Ausubel, D.P. 1963. The psychology of meaningful verbal learning. New York: Grune and Stratton.
- Bandura, A. 1969. Principles of behavior modification. New York: Holt, Rinehart and Winston.
- Carnes and Ernest R. 1985. Micro-Computer tutorial physical program with advance organizers used in various size groups. The University of Akron, *Dissertation Abstract International*. **46**(5) :1241.
- Donato, K,M. and Wojtkiewicz, R, A. 1996. The Educational Achievement of U.S. Puerto Ricans. (EJ537010). *New England Journal of Public Policy*. **11**(2): 99-111.
- Downing and Agnes. (1994). An Investigation of the Advance Organizer. *Theory as an Effective Teaching Model*. (ED377150)
- Egean,P. *et. al.*, 1979. Strategies for teachers' information processing models in the classroom. Prentice hall, New Jersey.
- Joyes, B., and Weil, M. 1997. Models of teaching. New Delhi: Prentice- Hall of India.
- Siddiqui, M.H. 1993. Excellence of Teaching-a model approach. Ashish Publishing House, New Delhi.
- Siddiqui, M.H. and Khan. 2004. Models of Teaching –Theory and Research. Ashish Publishing house, New Delhi.
- Singh, Y.K. 2004. Teaching of social studies. APH publishing corporation, New Delhi.