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Research Paper

Effect of Advance Organizer Model on Achievement of Ix Standard Students in Mathematics

Education

KEYWORDS : Advance Organizer Model, Conventional method, achievement, students, mathematics

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ABSTRACT

In this study the researcher had studied the effect of advance organizer model on achievement of IX standard students in mathematics. For the purpose of the study a sample of 60 students of IX Standard English Medium from Municipal High School, Nadimpalli and Sarada High School in Proddatur Town were selected by random sampling method. R.P.M test of J.C.Ravens and achievement test in mathematics were used to collect the data. . Mean, SD, t-test were used to analyze the data. From this study it was found that advanced organizer model is more effective than Conventional Method of teaching on achievement of students in mathematics.

INTRODUCTION:

Teaching is an activity, designed and performed for the attainment of a larger number of objectives in terms of changes in pupil's behavior. At present, explosion of knowledge is being achieved through the development of science and technology. Instructional technology has come out with bubbling ideas. Pupils have varied personalities, which need different styles of learning. The common implication of both facts is that teacher should use such strategies of teaching which would match the instructional objectives of learning styles. There are many powerful models of teaching designed to bring about particular kinds of learning and to help students become more effective learners. As educators, we need to able to identify these models and to select the ones we will master in order to develop and increase our own effectiveness. To become competent to use these teaching strategies comfortably and effectively requires much study and practice, but by concentrating on one or two at a time we can expand our repertoires quite easily.

In life mathematics have very importance like other substances. Mathematics is present behind various events as well as different incidences which take place in our life. Mathematics plays important role in the economical and social development of nation. Mathematics has been one of the indivisible parts of human life. For this to increase the interest of students in mathematics from the school level, teaching of different concepts, equations, proofs, theorems in different branches of mathematics should be effective. In present situation learning of these topics is not so effective because of the use of traditional teaching method at school level. For this teacher should introduce the various methods and models of teaching for teaching of the mathematics subject.

Models of teaching enhance the ability of students to achieve various learning objectives. Thus, in a very real sense, increasing aptitude to learn is one of the fundamental purposes of these models. So the researcher is decided to study the effect of advanced organizer model on the achievement of IX standard students.

REVIEW OF LITERATURE:

Several researchers have studied the effect of advanced organizers on the various measures of achievement of students. Hudson Shihusa and Fred N. Kerazo (2009) investigated the effect of using advance organizers on student's motivation to learn biology in their study. O.I.Oloyede (2011) studied the effects of pictorial and written advance organizers on the achievement and retention of senior secondary school in chemistry. Jadhav Vandana (2011) studied the effect of advanced organizer model on the achievement of students in physics in her study. So in this study the researcher tried to study the effect of advanced organizer model on the achievement of students in mathematics.

NEED AND IMPORTANCE:

In the point of view of teaching according to Joyce and Weil (9,1985) a model of teaching is a plan or pattern that can be used to shape curricula, to design instructional material and to guide instruction in the classroom and other settings.

Today mathematics is used in different branches of knowledge like science engineering, astronomy, economics, social science, geology etc. in all over the world. For this if the base of student of mathematics subject is firm from the school level then he has no difficulty during higher education.

The most important aim of any model of teaching is to improve the instructional effectiveness through an interactive atmosphere. Models of teaching serve as simplifying metaphase to concept, the model also nurtures awareness to alternative perspectives, a sensitively to logical reasoning in communication and a tolerance of ambiguity.

In education, learning is measured through academic achievement. Achievement is the accomplishment of proficiency of performance in a given skill or body of knowledge. The knowledge attained or skills developed in a school subject usually designated by test scores or by marks given/assigned by the teacher or by any other is known as achievement.

In the present context education focuses on Discovery learning, problem solving, self motivated learning, meaningful learning, these methods help the learners to become innovative, creative, productive citizen of the country which is the need of the our globalized world, hence the researcher found need to study the effect of above mentioned model to investigate into effectiveness in bringing about desired learning outcomes.

There is a need to study AOM because,

1. Organizing concepts provide a conceptual structure on which the course is built.
2. It strengthens student's cognitive structure.
3. Facilitates their acquisition and retention of information.
4. Through AOM student may learn on his own.
5. It avoids fall back to learning by rote.
6. It promotes active processing of information meaningfully.

TITLE OF THE STUDY:

"Effect of advance organizer model on achievement of IX Standard student in Mathematics".

OBJECTIVES OF THE STUDY:

1. To prepare the lesson plans for teaching mathematics by using advanced organizer model and conventional method.
2. To compare the effect of Conventional method of teaching and advanced organizer model for teaching of mathematics subject on the achievement of the IX standard students.

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HYPOTHESIS OF THE STUDY:
There is no significant difference between mean scores of students of Conventional method of teaching and advanced organizer model.

METHODOLOGY:
Method: In the present study an Experimental Method of investigation was employed.

Sample: For the purpose of the study a sample of 60 IX standard students were selected in Proddatur Town through random sampling technique.

Tool: The R.P.M Test developed by J.C.Ravens and Achievement test in mathematics developed by the investigator.

Statistics Used: Mean, SD, t-test were used to analyze the data

OPERATIONAL DEFINITIONS OF RESEARCH:
Conventional teaching method: The method by which teacher teaches in class room is Conventional teaching method or Traditional teaching method.

Achievement: Knowledge obtained from mathematics teaching is an achievement.

Advanced organizer model: The model in which advanced organizer is presented with explanation, integrative reconciliation and critical study and in which also idea is cleared is an advanced organizer model.

ANALYSIS AND INTERPRETATION OF THE DATA:
Hypothesis: There is no significant difference between mean scores of students of Conventional method of teaching and advanced organizer model.

To test this hypothesis, the technique t test was employed and the results are shown in table-1.

Table-1: Means and Standard deviations of Achievement Test in mathematics scores of IX standard Students and their t- value.

Teaching Method	Sample	Mean	S.D	t-Value
Conventional Method	30	18.80	2.17	6.20*
Advance Organizer Model	30	21.03	1.81	

Note: *: Significant at 0.05 level.

From the table, observed that the t- value is 6.20, which is greater than table t- value 1.96 for degree of freedom 59 at 0.05 significant level. Therefore the null hypothesis was rejected. This shows that there is a significant difference in the mean scores of students which are taught by Conventional Method of Teaching and advanced organizer model. From this we conclude that the mean score of students taught by advanced organizer model is greater than the mean score of student which are taught by Conventional Method of Teaching. Hence we conclude that "There is no significant difference between mean scores of students of Conventional method of teaching and advanced organizer model" was rejected.

FINDINGS OF THE STUDY:
- There is a difference in achievement of students of standard IX from English Medium if Conventional Method of Teaching and advanced organizer model is used for teaching.
- The mean score of students taught by advanced organizer model is greater than the mean score of student which are taught by Conventional Method of Teaching.
- This shows that advanced organizer model is more effective than traditional teaching method.

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