Effectiveness Of Memory Model In Terms of Long Term Memory and Reaction Towards Memory Model Of Class ix Students

* Seema Modi, Assistant Professor
** Dr. Meena Buddhisagar, Professor
***Dr. Laxman Shinde, Reader, (Corr. Author)
*Christian Eminent College, Indore
**School of Education, D.A.V.V.
. ***School of Education D.A.V.V.
Indore, Madhya Pradesh, India

Introduction

Teaching is a difficult task; it needs various types of methods, technique and teaching aids. Selection of these methods and techniques depends upon the nature of task, learning objectives, abilities and students entering behavior. In present education system, teaching learning process is not effective. If one desires to improve the learning ability among students, it is essential to use the new strategies and methods of teachings so that students can understand the subject matter easily through their active participation. So there is a need to incorporate a few 'Models of Teaching' in the curriculum of teacher education programme at the secondary as well as elementary level, so that prospective teachers attain a higher degree of 'ability to teach'. Over the years, a large number of learning theories have been developed by educationists and psychologists. Such theories of learning alone do not suffice the purpose. Hence based on these theories, researchers have developed a number of teaching strategies to realise specific instructional goals. These teaching strategies show that there is no single best way to teach everything, but different strategies are required to realise different instructional goals. These prescriptive teaching strategies which help to realise specific instruction goals are known as 'Models of Teaching'. Models of teaching are one of the very new strategies through which students can understand the subject matter properly.

Models Of Teaching

A model of teaching has been defined in different ways. As **Joyce and Weil** (1972) said that a Model of Teaching is a pattern or plan which can be used to shape a curriculum or course, to select instructional materials, and to guide teacher's action. According to Eggen, Kauchak and Harder (1979) "Models of teaching are prescriptive teaching strategies designed to accomplish particular instructional goals."

Families of Models of Teaching

There are large numbers of models. They are broadly categorized in four different families. Joyce and Weil (1980) classified models in four families, on the basis of their objectives:
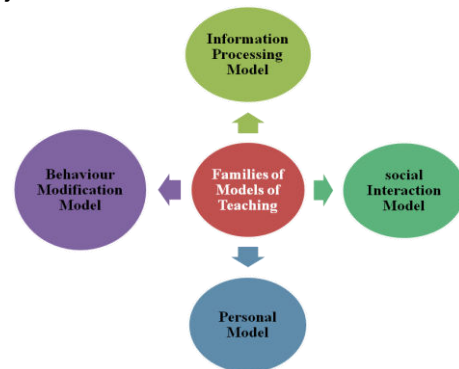
Fig. 1: The diagrammatic representation of families of Models of Teaching

Information Processing Models

I These models focus on intellectual capacity. They are concerned with the ability of the learner to observe, organise data, understand information, form concepts, employ verbal and nonverbal symbols and solve problems.

ii Personal Models

Models which belong to this family deal with the individual and the development of selfhood. The emphasis of these models is on developing an individual into an integrated, confident and competent personality. They attempt to help students understand themselves and their goals, and to develop the means for educating themselves.

iii Social Interaction Models

The models in this family emphasise the relationships of the individual to the society or other persons. The core objective is to help students learn to work together to identify and solve problems.

iv. Behaviour Modification Models

All the models in this family share a common theoretical base, a body of knowledge which referred to as behaviour theory. The common thrust of these models is the emphasis on changing the visible behaviour of the learner.

The model selected for the present study is memory model. Memory Model falls under information processing family.

Memory Model

Memory Model falls under information processing family. Memory model of teaching developed from the work of Pressley, Lenin and their associates includes four phases: Attending to the material, Developing connections, Expanding sensory images and Practising recall. These phases are based on the principle of attention and the techniques for enhancing recall

In psychology, Memory is the process in which information is encoded, stored and retrieved. Memory refers to the processes that are used to acquire, store, retain, and later retrieve information.

Rationale Of The Study

There are studies related to effectiveness of Memory Model on different academic subjects done by Kayathri (1989) and Deshmukh (2006) who found Memory Model to be positively effective in Botany and Geography teaching while the comparative studies of Nivedita (2004), Kumar (2004), Kumar (2005) of Memory Model with other models. Memory Model was found to be effective in English and Geography and Social Science teaching in terms of variables like achievement, intelligence, skills etc. Gautam (2004), Sushila (2008), Rathi (2010) found that Memory Model was effective in developing long-term and short-term memory, self concept and increasing memorization of students. Naamjoshi (2015) found that learning became interesting, innovative and permanent through Memory Model. Parshed (1976) found that gender factor affected scores on four subtests of memory but education had positive effect on the performance of memory test.

It is evident from the previous researches that very little work has been done on the Memory Model. This point leads to the selection of Memory Model for the present study

Statement Of The Problem

Effectiveness of Memory Model in Terms of Long Term Memory and Reaction Towards Memory Model of Class IXth Students

Objectives

1 To compare the pre and post test mean scores of long term memory scores of Experimental Group students.

2 To study reaction of experimental group students towards Memory Model.

Hypothesis

There is no significant difference in the pre and post test mean scores of long term memory of Experimental Group students.

Sample

The sample for the study was selected from class IX students of secondary schools of Indore city (M.P.) affiliated to M.P. Board on random basis. The age of the students was between 14-16 years approximately. The sample represented the average socioeconomic status.

Procedure Of Data Collection

Experimental Group is subjected to the treatment for a period of one and a half month on alternate days. Period of treatment include pretesting, Memory Model lesson

plan and post testing. Control Group is subjected to treatment at the same time

Step I – Pre-testing: Experimental and Control Groups were pre-tested on long term memory to assess the pre-treatment levels of long term memory.

Step II – Treatment with Memory Model: Treatment – Experimental Group was subjected to treatment of Memory Model for Social Science teaching.

Experimental Group was treated with Memory Model for teaching selected topics from Social Science

Step III - Post-testing – Soon after the treatment both Experimental and Control Group were post-tested on long term memory.

Design

The present study was experimental in nature. The study was designed on the basis of Non-Equivalent Control Group Design. According to Campbell and Stenley (1963), the layout of this design is as follows:

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0      X        0
0               0
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There were two groups. One group was designated as Experimental Group and the other as Control Group. Only the sections were randomly selected but not the subjects within each section. Both the groups were pre-tested by administering to assess the post- treatment level of students on long term memory.

Data Analysis

For comparing the adjusted mean scores of long term memory of experimental and control group by considering pre- long term memory as covariate, One Way ANCOVA was used.

1 For studying the Reactions of the students towards the treatment that is Memory Model percentage and coefficient of variance was used.

Effectiveness Of Memory Model In Terms Of Long Term Memory

The first objective of the study was to study the effectiveness of Memory Model in terms of long term memory. The long term memory

of the students was assessed with the help of long term memory. Total scores of the long term memory were considered. Long term memory of students of Experimental Group was assessed before as well as at the end of the treatment. The data were analyzed with the help of correlated t-test. The results are given in the following Table-1.

Table-1 : Testing-wise M, SD, r and t-values of Long Term Memory

Testing	M	SD	r	t-value
Pre- Test	9.75	2.23		
Post – Test	12.07	1.87	0.74	11.70**
** Significant at 0.01 level				

From above Table-1 it is evident that the correlated t- value for long term memory is 11.70 which is significant at 0.01 level with df = 58. It indicates that the mean scores of long term memory at pre and post test stage of students treated through Memory Model differ significantly. In this context the null hypothesis that "There is no significant difference in mean scores of long term memory before and after the treatment through Memory Model" is rejected. Further, the mean score of long term memory after the treatment was found to be 12.07 which is significantly higher than that before the treatment which is 9.75. It may, therefore, be said that the Memory Model was found to enhance the long term memory of students. Thus, the Memory Model was found to be effective in terms of long term memory.

Reaction Of Students Towards Memory Model

The second objective of the study was to study the reactions of the students towards the treatment that is Memory Model. The reaction towards Memory Model was assessed at the end of the treatment. The Memory Model was found to be effective in terms of Reaction towards Memory Model.

Findings Of The Study

1 Memory Model was found to be effective in terms of long term memory when groups

were matched with pre long term memory scores.

2. The Memory Model was found to be effective in terms of reaction towards Memory Model.

Effectiveness Of Memory Model In Terms Of Long Term Memory

On the basis of the analysis of the data it was found that the Memory Model was found to be effective in terms of long term memory. The result is consistent with the study of Gautam (2004), who found that long term memory is increased by using the Memory Model. Also Namjoshi (2015) found that the learning became more permanent by the Memory Model. It might be due to process and steps of Memory Model through which one can see, feel, touch, smell, taste and generate powerful association for remembering. It might be due to process and steps of Memory Model through which one can see, feel, touch, smell, taste and generate powerful association for remembering. The instructional effects of Memory Model increases growing consciousness of the ability to master unfamiliar materials, therefore retention becomes easier for both students with low and high long term memory.

The students remember best those ideas that are presented to several of their sensory channel. Sometimes for the students, the short term memory can become long term memory through the process of association and storage of information semantically. Sometimes forgetting occurs in the long term memory but by using Memory Model (like association, linking the previous knowledge) the forgetfulness can be reduced and long term memory can be enhanced. It was found that the association between new material and things that have previously being learnt by the students, senses are involved and attentiveness helped a lot in increasing memorization. Repetition and involved and attentiveness helped a lot in increasing memorization. Repetition and recalling the study material also helped the students to memorize effectively. These aspects of teaching through Memory Model improved the long term memory of the students.

Reaction Of Students Towards Memory Model

On the basis of the analysis of the data it was found that as a group, the reaction towards Memory Model was strongly favourable. Thus, the Memory Model was found to be effective in terms of reaction towards Memory Model. This finding was supported by Rathi (2010). It might be due to the presentation of orientation i.e. attending to the material through which student can concentrate on the learning material. Also it might be due to the material which included linking system i.e. words, images, pictures etc. and the lessons and exercises presented in classroom in very interesting manner, through which students could associate their previous knowledge with new knowledge and showed better learning.

Conclusion

Memorization Model is the most important aspect of the teaching learning process in education system. Traditional teaching learning process is not effective to improve the learning ability among students; it is esential to use sthe new strategies and methods of teaching so that students can understand the subject matter easily through active participation. On the basis of results obtained from the present study following conclusions can be drawn : Memory Model helps to improve the long term memory to the same level when groups were matched with respect to prelong term memory.

In todays competitive world information has become very comprehensive the students have to restore this information in their memory, so that they progress ahead, increase their knowledge. For this they will have to use memory expansion method to make their learning simple, easy, and also to learn and retain information.

Memory expansion method will help in following ways:-

1 Key words can be used in learning formulas in any subject.

2 To retain/remember hard words, substitution words or similar words can be used.

3 To make chapters interesting the students can remember term in the form of stories, poems or some event/phenomena.

4 Students can develop attitude of creativity and intellecltual competency.

5 Students can develop their memory.

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