

Effect of Co-Operative Mastery Learning Strategy on Achievement in Social Studies of IX Graders

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Abstract: *The Study was intended to investigate the effect of teaching through co-operative mastery learning strategy on the achievement in social studies. Sample of the study consisted of 210 (105 experimental group and 105 controlled group) IX class students from two Government secondary schools of Ludhiana district of Punjab, India. Experimental group was exposed to co-operative mastery learning strategy and the controlled group was exposed to conventional method (lecture and discussion). Achievement test in social studies (developed and standardized by the investigator) was used as tool for data collection. The results of the study showed that achievement in social studies of the group exposed to co-operative mastery learning strategy was significantly more as compared to group taught by conventional method.*

Keywords: Co-operative mastery learning strategy, experimental group, controlled group, achievement in social studies

1. Introduction

Different methods and techniques for imparting instructions in a formal classroom setting have been continuously changing in which the old ones were replaced by the new ones. There came a change in the thinking that all can learn well under a set of certain condition. The change in thinking has revolutionized, in a way the whole concept and process of teaching in the classroom the concentration of the teacher now is not only limited to a small section of students rather takes into its hold all the students in the class. So there is need to adopt such strategies that maximize and consolidate learning by the students within the available meager resources and can help bring paradigm shift in teaching and learning required to make school education more effective and relevant.

2. Co-Operative Mastery Learning Strategy

It is a strategy formed by integrating the critical components of mastery learning (Bloom, 1976) and co-operative learning (Slavin 1983). In co-operative mastery learning strategy, children are exposed to the same activities as in co-operative learning but at the end of each unit the student is provided individually with the teacher's feedback through formative evaluation. Those who fail to achieve mastery are required to relearn from their peers who attain mastery. For this purpose the students are split in two small equal ability heterogeneous groups. Each group is put under the tutoring of their master peers who teach and re-teach till the whole group demonstrates mastery on the formative test.

Education in Government secondary schools Indian is based on traditional methods of teaching which are teacher centered. But with the development in teaching learning process these methods are being replaced by new innovative methods. Collaborative mastery learning strategy is one such technique. In co-operative mastery learning strategy students learn co-operatively with their classmates employing several modes as reading, hearing, lecturing or participating in discussion. It is very logical process. It helps most students

to learn excellently, quickly and self-confidently. It minimizes failure and maximizes the chance of success. Co-operative mastery learning strategy is very helpful in teaching and learning process which improves the achievement of the students.

3. Achievement

According to Oxford advanced learner dictionary of current English (2000) achievement is a thing that somebody has done successfully especially using his/her own efforts and skills. According to Craighead and Charles (2001) academic achievement may be defined as "a measure of knowledge, understanding of skills in a specified subject or group of subjects"

On the basis of above definitions, it can be concluded that academic achievement is

- Quantity and quality of learning attained in a subject or group of subjects after a period of instruction.
- Knowledge attained or skills developed in school subjects

Social studies achievement refers to understanding of social studies concepts, application of knowledge and skills to new situations and logical reasoning.

Academic achievement in social studies means the amount of knowledge gained by the students in Social Studies. It encourages the students to work hard and learn more. Also it helps the teachers to know whether their teaching methods are effective or not and helps them to bring improvements accordingly. Here achievement is considered as mean gain scores obtained by the students in the Social Studies. The achievements of students depend upon achievement motivation.

4. Emergence of the problem

Results of studies of co-operative mastery learning strategy by Singh (1978), Mevarech (1985), Guskey (1990),

Akinsola (1996), Amousan (2011), Goreyshi, Kargar, Noohi and Ajilchi (2013) showed that teaching through co-operative mastery learning strategy has significant effect on the achievement of the students. But study by Ozder (2000) showed that co-operative mastery learning strategy has no significant effect on the achievement of the students. The studies that investigated the effect of co-operative mastery learning strategy on the student's achievement had mixed findings. However few studies were found conducted in Panjab University (Ali, 2000; and Kaur, 2009). Ali (2000) conducted a comparative study of learning languages through co-operative mastery learning strategy among tribal and non-tribal fifth graders on the population of Assam. Kaur (2009) on the other hand conducted a study on effectiveness of co-operative mastery learning strategy for science process skills among primary school children in relation to parental involvement, but no study related to effect of co-operative mastery learning strategy on achievement in social studies on population of Government secondary school students of Ludhiana district was found. The proposed study thus seems fully justified.

5. Objective

- To investigate the significance of difference in achievement in Social Studies of groups taught through co-operative mastery learning strategy and conventional teaching.

6. Hypothesis:

- There will be no significant difference in achievement in social studies of the groups taught through co-operative mastery learning strategy and conventional teaching.

7. Method and Procedure

To study the effectiveness of co-operative mastery learning strategy on the achievement in social studies randomized groups pretest- posttest design was used. Here in the first phase co-operative mastery learning instructional packages was prepared and social studies achievement test was constructed and standardized. Groups (experimental and controlled groups) were matched on intelligence, achievement motivation and academic stress. In the second phase students of controlled and experimental group were exposed to traditional teaching and co-operative mastery learning strategy respectively. In the last phase social studies achievement test was applied again as a post test. The difference of scores of post and pre test which is termed as mean gain scores is index with which effectiveness of two methods could be compared.

Control

Steps taken to control the extraneous variables:

Random sampling was done in order to have true representative data. Matching of groups was done on the basis of intelligence, achievement motivation and academic stress. Apart from this age, socio-economic status, age, gender is the other factors wherein all the relevant variables

were controlled. The analysis was done on the gain scores (Post test - pre test) in order to eliminate the effect of the prior knowledge about the subject. Only Government secondary schools were taken for the sampling, so the effect of environmental factor was nullified. These schools have more or less same physical facilities, such as furniture, ventilation, equipment and light etc. Investigators made students comfortable with respect to medium. Single teacher conducted the whole experiment hence inter teacher variations were eliminated. Only two learning strategies i.e. co-operative mastery learning strategy with peer tutoring as feedback corrective and conventional group learning was used.

Sample

Sample of 210 students of IX class of Government secondary schools were be selected through the multistage randomization technique from Ludhiana district of Punjab.

Tools

- 1) Instructional packages for co-operative mastery learning strategy on different topics of social studies for class IX developed by the investigator.
- 2) Criterion referenced test measuring achievement on selected topics of social studies of IX class to be developed by the investigator.

8. Result and Discussion

To investigate the significance of difference in achievement (gain score) of controlled and experimental groups t-ratio was worked out and the value is given in table below:

Table: Significance of difference in achievement (gain score) of controlled and experimental group

Groups	Mean	Standard Deviation	t-ratio
Controlled group	12.82	6.43	5.82*
Experimental group	34.39	3.50	

*Significant at 0.01 level of significance.

Table reveals that the mean values of controlled and experimental groups for achievement (gain score) are 12.82 and 34.39 respectively. The value of t-ratio is 5.82 which is significant ($p < 0.01$). The achievement in social studies of group taught through co-operative mastery learning strategy is thus significantly more as compared to group taught through traditional method. This leads to the rejection of null hypothesis (There will be no significant difference in achievement in social studies of the groups taught through co-operative mastery learning strategy and conventional teaching). This finding is well supported by the studies earlier conducted by Bonaparte (1989), Ali (2000) and Kaur (2009).

9. Discussion

Co-operative learning increases student motivation by providing peer support (Glasser, 1986). Mastery learning

approach is effective as it insist on attainment of mastery of unit objective before proceeding to the next topic. Hence the prerequisite to a topic is mastered well before studying the topic. Co-operative mastery learning strategy provides the benefits of both co-operative learning and mastery learning strategy thus the students exposed to co-operative mastery learning strategy acquired the social studies concept significantly better than the students exposed to traditional methods.

10. Implications

On the basis of the findings of present study co-operative mastery learning strategy is strongly recommended for teaching of social studies in Government secondary schools of Punjab. This strategy is applicable in the Government secondary schools as it matches the conditions of the schools. It can be implemented in the normal type of environment and no extra equipments and technology is required.

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