



**Effect of Cooperative Learning Strategy over activity oriented method of
teaching on Creative Thinking.**

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Education is the structuring of a situation in ways that help students change through learning and learning is a change within the student that is brought about by the instructional programme of a school. The importance of school as a model of the society in helping them become responsible citizens cannot be overlooked so Education plays an important role in the complicated world of today. In conditions in which countries worldwide think their development relies on the development of education systems, traditional teaching methods cannot provide them with the development and transformation they want . Learning by children is more effective if the teaching process is joyful and activity based and allows for active participation and thinking at their level. This is possible through group work as it involves “students working together in a group small enough so that everyone can participate in a task that has been clearly assigned” (Cohan, 1986).

Cooperative learning is one of the best method for group learning. It dominated educational thoughts, individual learning that was mainly based on the works of Skinner about programmed learning and behavioral changes, was challenged. Today’s educational performances and thoughts have changed and now cooperative learning is accepted as a suitable educational method that is accepted for all educational levels. Currently, cooperative learning is used in schools and universities worldwide for different topics and for all age groups. Little literature can be found on teaching methods, teacher magazines, or teaching materials that have not discussed cooperative learning, and to be brief, cooperative learning method is one of the successful events in psychology and educational science (Gillies et al., 2008).

Cooperative learning has also been closely related to concepts such as collaborative learning or group learning. The broadest definition of collaborative learning is that it is a situation in which two or more people learn something together (Dillenbourg, 1999). Similarly group learning has been defined as the physical placement of students into groups and the usage of specific instructional strategies for the purpose of learning (Lou et al., 1996). For the purpose of this review, cooperative learning is defined as: *students working together in small groups which allow everyone to participate in group tasks that have been clearly structured and defined, this definition is broad and encompasses the concepts of collaborative as well as group learning (Cohen, 1994).*

Think-Pair-Share

(Think – Pair – Share) Strategy is one of the active cooperative learning strategies where they are used to activate the students' previous knowledge of the position of education or to work the reaction about mathematical problem (Nasr, 2003). Strategic steps of (Think – Pair – Share) is posed some of the questions to the class about what has been explained about the activity or an issue or a task and then ask the students to think for a minute about this question alone with the prevention of talk or walk around in the classroom at the time of thinking, Then the teacher asks students to splitting up into pairs to discuss and think together about a question or posed activity for a period of five minutes finally, the teacher are required from couples to participate by displaying what has been reached of solutions and ideas about the question or activity And it Is characterized by give the student an opportunity to reflect (with himself internally and externally with colleagues) And thinking and revision before answering (Zaitun, 2007).

1.5 Objective of the Study

To study the effect of Cooperative Learning Strategy over activity oriented method of teaching on Creative Thinking.

1.6 Hypothesis of the Study

There is no significant difference exist in the means of post-test pre-test design scores of creative thinking.

3.1 Methodology

The present study is quantitative in nature and a quasi-experimental study which uses one group pretest-posttest design. Pretest-posttest one group design can be represented as:

$$O_1 \text{ X } O_2$$

Here X refers to the exposure of a group to an experimental (treatment) variable; and o to the observation or test administered. The difference between the mean of the O1 and O2 scores are tested for statistical significance.

3.2 Population and Sample

The subject for the study was not a random sample of students. The population of the study was fifth class students. To draw out the sample, therefore purposive sampling technique was used. The sample of 40 students (20 boys and 20 girls) has been taken for study. School has students from almost all communities and socio-economic background and having various intellectual and academic abilities. There was one section of fifth class which had been chosen as an experimental group.

3.3 Variables under the study

The following types of variables were considered in the study-

3.31 Independent Variable

The teaching method served as the independent variable for the study. Under the present investigation, the experimental class was taught through the cooperative learning strategy (Think pair-share).

3.32 Dependent Variable

Creativity was chosen as the dependent variable.

3.33 Control Variables

Certain variables were controlled in the study. Gender was controlled as all the students chosen for the study consisted of equal number. Grade was controlled as all the students chosen for the study were selected from class v only. Teacher competence was also controlled as the

researcher himself taught the experimental group. Length of instruction was also controlled as each teaching session was a period of 40 minutes.

3.4 Tools Used

The following tools were used to carry out the present study-

Torrance Test of Creative Thinking (TTCT)

Lesson plan developed by Think Pair-share technique of Cooperative Learning

3.5 Experimentation

In the present investigation the one section of class V, were taught with Think pair-share technique of cooperative learning in science subject. In the study 15 lesson of science were taught with the effective lesson plan made by Think pair-share technique. In this technique a question is pose to the students that they must consider it alone and then discuss it with a neighbor before setting on a final answer. The total experimentation procedure was planned and organized in successive steps in order to facilitate proper collection of data. The procedure followed to collect the data was in the following order:

Administration of T.T.C.T. as a pre test.

Administration of T.P.S. Technique of Cooperative Learning on experimental group.

Administration of T.T.C.T. after the intervention as a post test.

The test was administered on successive school days. Proper care was taken to keep the tests free from anxiety and unthreatening environment was fostered with the help of the students. No separate answer sheet was used for the test Method of recording responses was printed on the booklets although verbal instructions were also given

Result and Discussion-

The aim of the present study is to investigate a comparison between the effect of cooperative learning strategy and teaching method on student's creativity. The research population consisted of all the fifth grade elementary school students of district Bareilly. The statistical population included 40 students (20 female and 20 male) of fifth grade elementary school that were selected randomly. The research method was semi-experimental and the research tools

include Torrance Test of Creative Thinking (TTCT) aimed at evaluating the students' creativity and also a cooperative learning strategy i.e. Think pair and share technique. The reliability of the TTCT was confirmed through retesting ($r=.88$). For data analysis, t-test and variance analysis were used by utilizing SPSS software. The results showed that the Think pair and share technique of cooperative learning has a higher effect on student's creativity than the in science. In the light of major objective of the study the result related to the study describe as follows:

The objective of the present study sought to find out the effectiveness of cooperative learning (T.P.S.) on creativity in science. To realize this objective t- test between pre test and post test scores has been used on the data yielded through Torrance Test of Creative Thinking. Some important descriptive, for both the TTCT pre test and TTCT post test have been presented in table 4.01

In order to test hypothesis that "There is no significant difference exist in the post-test pre-test design scores of creative thinking, Mean, S.D., S.E. and t-ratio were calculated, the statistical values are given in table 4.01.

Table 4.01

Significance of mean difference between post-test pre-test design in relation to Creativity

Variable	Post-test Scores(N=40)			Pre-test Scores(N=40)			t -ratio
	Mean	S.D.	S.E.	Mean	S.D.	S.E.	
Creativity	30.15	4.97	0.785	15.05	4.03	0.637	14.95*

*Significant at .01 level

Comparison of mean scores was carried out to test whether significant difference exist between means of post-test and pre-test scores of the experimental group in the dependent

variable. Two tailed test of significance of difference between means was used for comparison and the results are given in TABLE 4.01

Results of one-tailed t-test performed to estimate the significance of difference between mean gain scores of the pre-test post-test experimental group in Creative Thinking Skills shows that the mean gain scores on Creative Thinking Skills of the post-test pre-test experimental group differ significantly due to the intervention, the two scores differ significantly in their mean scores in post- tests of Creative Thinking Skills. The pre-test score means in Creative Thinking Skills was initially comparable. After intervention, we can see that the mean scores in Creative Thinking Skills of post-test score the experimental group significantly differ. Also, one-tailed t- test performed to estimate the significance of difference between mean gain scores of post-test pre-test scores of the experimental group revealed that there was a significant difference between the gain score means of the pre-test post-test experimental group in Creative Thinking Skills.

The findings of the present study is match with findings of Elizabeth B. John, Meera, K.P.(2014) who concluded that cooperative learning strategy done positive effect to enhance the creative thinking skills.

5.2 CONCLUSION

The main effect for teaching methods with respect to creativity in science was found to be highly significant. Comparison of means showed that cooperative learning strategy (TPS) produces significantly greater Creative Thinking in science.

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