

Cooperative Learning: A Technique to Excel Learning

Santosh Siwach

Department of Educational Research, Prarambh School for Teacher Education, Jhajjar, India.

Abstract

At the early stage of formal education system, formation of learning groups was influenced by various factors but as structure was not defined rationally and as per the need of child. But with the changing time educational objectives have been modified by noting core concern of child's need. The present paper throws a light upon innovative small group teaching-learning technique named 'Cooperative Learning'. Over the last three decades, the small group cooperative learning has got broad-based attention from the scholars and teachers. It provides bases for small group instructional systems which not only optimize students learning but also tends to higher various other positive attributes. The present paper gives an overview of the meaning and concept that can be used to comprehend small group learning techniques in Indian classrooms in future. Furthermore it discusses the five-component theory regarding essential elements to make success of cooperative learning as: (a) Positive interdependence; (b) Face-to-face promotive interaction; (c) Individual accountability; (d) Social skills; and (e) Group processing. It highlights various aspects which distinguish cooperative learning from competitive and individualistic learning on four bases: goal; levels of cooperation; interaction pattern; and evaluation of outcomes. It also suggests various steps to implement cooperative learning in classroom.

Key words: Cooperative learning, Positive interdependence, Face-to-face promotive interaction, Individual accountability, Social skills and Group processing.

Introduction

Since the times of Socrates and other ancient educationists and to the early stage of formal education system, group learning has been used as an intrinsic education technique. Students were grouped in various ways such as by age, knowledge or even by gender but that classification of groups was not rational and scientific. A classroom in itself consists of students who appear to have been grouped, following one or more of these parameters. In our traditional classroom teaching is totally teacher dominated and content centred. In the present educational system the teachers are regarded as repositories of subject knowledge and their role is simply to pour information and knowledge into the open and empty minds of learners. Now a days learner is core part for the whole educational system. Therefore innovative small group teaching-learning methods are of utmost importance to design learning experiences as per the need of a child. Thereby objectives set for group formation and process of getting knowledge of the subject concerned at present times is quite different to the ancient times and to the ongoing formal education system. Many educators of modern age have recognized "Cooperative Learning" as a beneficial teaching learning technique for different subjects and areas of learning.

An Overview of Cooperative Learning

At the present time, Co-operative learning is one of the recommended teaching-learning techniques in which students actively achieve learning goals or objectives by helping each other in a small social setting. It is a successful

teaching strategy which includes small teams of students having different ability levels and uses a number of learning activities and experiences to improve their understanding of a subject.

Over the last two decades, co-operative learning has achieved broad-based support from researchers and classroom teachers (Slavin, 1999). Working in cooperative groups, students enable to understand, practice new concepts, able to learn and attain certain new valuable social skills. Cooperative group learning does not happen successfully unless it is well-organised and systematised. Certain healthy considerations increase the chances that the groups will work well together and achieve targeted standards. (Gregory and Chapman, 2002). Students perform well when working together with peers. Every member of the team in cooperation always willing to do their fair share of assigned task. Fast learners can assist the slower learners to achieve learning goals and do well. They can learn as well from the slow learner, in return too. Through learning in small cooperative groups pupils learn from each other that how to accommodate each other's abilities within small social setting to achieve predefined goals.

What is Cooperative Learning?

Johnson, Johnson and Smith (1991) remarked that Cooperative learning is the instructional use of small groups so that students work together to maximize their own and each other's learning.

Cooperative learning is an activity involving a small group of learners, who work together as a team to solve a problem, complete a task or to accomplish a common goal (Artzt & Newman,1990).

Davidson (1990) referred cooperative learning is a task for group discussion and resolution, requiring face-to face interaction, an atmosphere of co-operation and mutual helpfulness and individual accountability.

Flowers and Ritz (1994) viewed cooperative learning as a teaching strategy where teams of two or more work together on different learning goals. Every member of the team has specific abilities which they use in the achievement of the tasks and learn from each other. It also means taking the talents of individuals and pooling these together to get the job done. As a result, students learn both academic and social skills from a cooperative learning environment. Cooperative learning is an arrangement in which students work in mixed ability groups and are rewarded on the basis of the success of the group (Woolfolk, 2001).

Why Use Cooperative Learning?

Cooperative learning has emerged as a leading new approach towards learning in small group settings. The basic idea behind the use of cooperative learning in small groups is that it enhances the peer group cooperation and reduces the competitive behavioural approach towards learning. It is known fact that Indian classrooms are highly heterogeneous in nature. In the classroom, the students have different abilities. Some can master the subject quickly and some take more time to attain mastery. But the teacher imparts instruction to the whole group without taking note of the heterogeneity of the group. As a result, the teaching may not be effective and fruitful. Therefore, the teacher ought to make his instruction more effective and meaningful, satisfying the needs of all the types of the learners in the class. The popular cooperative learning approaches cater to the needs of students having different mental abilities in organizing students to work together in small group (Slavin, 1995).

Cooperative learning may best be defined as small heterogeneously mixed working groups of learners learning collaborative/social skills while working towards a common academic goal or task. Cooperative learning enhances achievement, construct new positive relationships among members of the teams and create healthier environment of learning.

Many researchers have found that members completing cooperative learning group tasks tend to have higher academic test scores, higher self-esteem, greater number of positive social skills, fewer stereotypes of individuals of other races or ethnic groups and greater comprehension of the content and skills they are studying (Johnson, Johnson and Holubec 1993; Slavin 1991; Stahl and Van Sickle, 1992).

Slavin (1991) reviewed 67 studies and found that 61% of the cooperative learning classes achieved significantly higher test scores than the traditional classes. He noted that the difference between the more and less effective cooperative learning classes was that the effective ones stressed group goals and individual accountability. Slavin (1996) further found that cooperative learning has its greatest effects on student learning when groups are recognised or rewarded based on the individual learning of their members.

Barkley, et. al. (2005) found Cooperative settings superior to either competitive or individualistic structures on the basis of outcomes which generally showed higher achievement, higher-level thinking and reasoning and moreover greater transfer of learning.

Students in mixed groups (different races, genders, learning styles) tend to have a deeper understanding of the material and remember more than those in homogeneous groups (Wenzel, 2000).

Williamson and Rowe (2002) observed that students in cooperative-learning sections were more willing to ask the instructor questions (in class or through office visits) than those in traditionally taught sections.

In cooperative learning, every member in small groups having different abilities, use various learning activities to attain predefined goals and help each other to improve their understanding of the subject. Each and every one is accountable not only for their self learning but also for their team mates learn. Thereby each member is accountable for creating congenial and aggressive atmosphere in the way of achievement and accomplishment of task.

Johnson and Johnson (2001) referred that cooperative effort results in participants striving for mutual benefits so that all group members gain from each other's efforts.

Elements of Co-Operative Learning

Although Slavin (1990) proposed a three-elements theory of co-operative learning comprising (a) positive interdependence, (b) individual accountability and (c) social skills, yet the five-component theory proposed by Johnson, Johnson and Holubec (1991) is preferred to be used most. According to this conceptualization, the following five elements are essential for increasing the likelihood of success of a co-operation learning endeavour: (a) Positive interdependence; (b) Face-to-face promotive interaction; (c) Individual accountability; (d) Social skills; and (e) Group processing.

(a) Positive Interdependence

The very basic first element is positive interdependence. Positive interdependence means that a gain for one student is associated with gains for the other students. Students should be guided to understand that the success of every team member depends upon the success of other members. Kagan (1994) pointed out that if one fails in completing task then the whole team proceed same.

In this element every group member should have a sense of commitment with all other members of the group that one can't succeed unless every member succeeds. In cooperative learning every group member's work is required which further leads group success. So it is positive interdependence which motivates everyone in their respective groups to

work not only for themselves but for the entire group. Every cooperative activity is the joint venture. Each one uses his/her abilities and resources to complete the group tasks.

(b) Face-to-Face Promotive Interaction

The second basic element of cooperative learning is face-to-face promotive interaction. Only positive interdependence can't lead success of cooperative learning groups there is also requirement of face-to-face interaction of all the members of the group. Cooperative learning groups ensure that group members meet face-to-face to work together to complete tasks and promote each other's success. Group members need to do their work individually as well as collectively. There exists academic assistance for member of the group himself/herself and a support mechanism for others in team. When individuals share resources and provide support to each other's efforts to complete assignments in order to attain the group's goals then there exists promotive interaction.

(c) Individual Accountability

The third basic element of cooperative learning is individual accountability. It involves being responsible for completing one's share of the work or master the task assigned within the group. In doing so, social loafing is assumed to be minimized. The discipline of using cooperative groups includes structuring group and individual accountability. Group accountability exists when the overall performance of the group is evaluated and the results are supplied back to all team members to compare against a criterion measure. Individual accountability exists when the performance of each and every individual member is evaluated, the result are supplied back to the individual and the group to compare against a criterion measure and the member is supposed accountable by team-mates for contributing his or her fair share to the group task.

(d) Social Skills

The fourth basic element in cooperative learning is the interpersonal and social skills. Cooperative learning requires a constructive and positive interaction among all group members. Cooperative learning is not bounded to the objectives to gain academically but also put efforts to enhance a set of social skills. While students are working in cooperative groups they put themselves in complex structures to learn great coordination to attain mutual goals.

(e) Group Processing

The last and final element of cooperative learning is group processing. When every member of the cooperative learning groups is functioning and contributing well then the working of entire group said to be effective. In these groups, group processing account the every action as cooperative and non-cooperative, helpful and unhelpful, appreciable and condemnable, able to sustain and need to change. The structured group processing finally improves the quality of group work done and task assigned to be completed.

A successful small-group processing allow sufficient time for it to take place, providing a structure for processing, emphasizing positive feedback, making the processing specific rather than general, maintaining students to use their cooperative skills while they process, and communicating clear expectations as to the purpose of processing.

Aspects of Cooperative Learning

Johnson and Johnson (1999) differentiated cooperative learning from competitive and individualistic learning on four bases: goal; levels of cooperation; interaction pattern; and evaluation of outcomes, as defined as follows:

Goal: Class members are assigned to small group (often heterogeneous) and instructed to (a) learn the assigned material and (b) ensure all other group member does likewise.

Levels of Cooperation: Cooperation may be extended to the class (by ensuring that everyone in the class has learned the assigned material) and the school (by ensuring that all students in the school are progressing academically) levels.

Interaction Pattern: Students promote each other's success. Students discuss material with each other, explain how to complete the assignment, listen to each other's explanation, encourage each other to work hard and provide academic help and assistance. This interaction pattern exists between as well as within groups.

Evaluation of Outcomes: A criteria-referenced assessment and evaluation system is used, the focus is usually on the learning and academic progress of the individual student but may also include the group as whole, the class, and the school.

How to Use Cooperative Learning?

Foyle and Lyman (1988) identify ten basic steps involved in successful implementation of cooperative learning activities which are as follows: (1) Teacher should identify the content to be taught and criteria for mastery. (2) Teacher should identify the most useful cooperative learning technique and the group size to be taken. (3) Students should be assigned into small groups. (4) The classroom should be arranged to facilitate group interaction. (5) Group processes should be reviewed as per need to assure that the groups run smoothly. (6) The teacher should develop expectations for group learning and make sure that students understand the purpose of the learning and bound time line for activities. (7) The teacher should present initial appropriate material and chooses techniques. (8) The teacher should monitor student interaction in the groups and provide assistance and clarification as needed. The teacher should review group skills and facilitate problem-solving when necessary. (9) Students' outcomes must be evaluated. Students must individually demonstrate mastery of essential skills or concepts of learning. Evaluation should be based on observations of student performance or oral responses to questions and no need to use paper and pencil. (10) Groups must be rewarded for every success. Verbal praise by the teacher or recognition in the class newsletter or on the bulletin board can be used to reward high-achievers.

Conclusion

It is difficult task to ascribe the analytic outcomes to any single element. Surely the analysis of the present paper highlights and supports the idea that cooperative learning techniques have a positive impact not only on achievement but also on many other valuable variables. It shows very clear advantage of cooperative learning over conventional methods of teaching-learning. Cooperative learning provides a structure which allows teacher and students to manage the classroom and instructional system, that itself evolves from the positive interdependence. In cooperative learning structure, groups as well as individuals get rewards for their performance immediately after completion of task that stimulates higher learning, social skills and cooperation which is highly important for heterogeneous classrooms like India.

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