COOPERATIVE LEARNING STRATEGY AND GROUP COHESIVENESS

Usha Borkar* Madhura Kesarkar**

*Asst. Professor, Gujarat Research Society's Hansraj Jivandas College of Education
**Professor, Head & Dean, Faculty of Education, S.N.D.T. Women's University

Abstract

The Indian society including the present educational system is mainly based on competition. This scenario is also found in the system of teacher education. If the prospective teachers need to be productive and efficient collaborator, then the same need to be ingrained at the stage of the pre service education In order to improve collaboration the factors affecting teamwork must be examined to identify. One factor contributing to teamwork is group cohesiveness. The purpose of the study was to determine the effect of Cooperative Learning Strategy on group cohesiveness. Subjects (N=84) were randomly placed into two groups. The experimental group was subjected to intervention using a Training Package on Cooperative Learning Strategy of fifty hours duration and Post test was administered to both the groups after completion of the intervention. The results of posttest of both the groups were compared to determine the effect on group cohesiveness.

Key Words*: Cooperative Learning Strategy, Group Cohesiveness, Student teachers, Teacher Education, Training Package*

Introduction

Due to Liberalization, Privatization and Globalization, the Indian society including the present educational system is mainly based on competition, which is reflected in almost every aspect of it. Right from the stage of admission to a preschool class up to the highest level students have to compete with their fellow students. This new competitive environment has given birth to an individualistic environment where the 'I' is of supreme importance. "My SUCESS benefits me and your FAILURE benefits me" is the aphorism of the day. Under the pretext of preparing individuals to face global competition one is constantly a part of a rat race. Indian philosophy of "Vishva Te Majhe Kutumb" (World is my family) and "Live and let live" has been replaced by "Win by hook or crook".

Excessive competition is inimical to the spirit of productivity because it puts premium on convergent thinking rather than on divergent thinking. This scenario is also found in the system of teacher education. A student teacher encounters intense competition right from the time that s/he seeks admission to a college of education till s/he exits the college. Due to the system of equal weightage to internal and external examination and due to examination oriented curriculum; many deceitful activities on the part of student teachers are observed. At times it is a gargantuan task propelling student teachers to function smoothly in groups. Team work and functioning in small groups is the essence of any pre service training programme. Whether it is for practice lessons or for internship activities or for cultural or academic programme one has to constantly function in a cooperative manner. This manner of functioning is also expected in schools. But developing and maintaining social relations is lowermost item on ones agenda today.

In a speech delivered by Bill Clinton, the 42nd president of the United States at Yale University on 31st October, 2003, he said: "I think the greatest mission of the 21st century is to create a genuine *global* community, to move from mere interdependence to integration, to a community that has shared responsibilities, shared benefits and shared values. How would we go about building that kind of world?...one of the main responsibilities is to build institutions of *global cooperation*, so that people get into a habit of resolving their differences in a peaceful way, according to rules and procedures generally perceived to be fair." To achieve this one can seek inspiration from the UNESCO Report of International Commission for Education in the 21st century led by M. Jacques Delors published as "Learning: The Treasure Within, 1996". The report acknowledges the need to "rethink and update the concept of lifelong education so as to reconcile three forces: competition which provides incentives, cooperation which gives strength and solidarity which unites...

Excessive competitiveness and personal success have become modern values leading to divisive tendencies. Our education often helps to sustain these values. But today it is imperative that the process of education must equip the students with ways of avoiding conflict or to resolve conflicts in a peaceful manner i.e. enable the students to 'Learning to live together, learning to live with others'.

Many educators, policy makers and taxpayers opine that a teacher of today is not only concerned with transacting an excellent instructional program but facilitating the development of 'humane individuals'. Hence the demand of the hour is creating teachers who can bring this shift in perspective. If teachers have to bring this shift in perspective they cannot be equipped with

the most commonly used presentation-cum- recitation method. This situation requires cooperative learning, which has tremendous potential for making learning more effective and relevant as well as enhancing the quality of education.

According to Johnson & Johnson (1991)...

Socialization involves cooperation and cooperation is at the heart of our society. Families must cooperate to survive, just as our entire economic system is based upon cooperation. Human being's very survival depends upon their ability to "get along" and work together. Socialization issues continue to result in tremendous problems for the child. Students are unable to cooperate and/ or utilize the skills of conflict resolution. It is up to the schools to provide intervention to the socialization deficits.

Keeping in mind these guidelines and background knowledge the teacher of 21st century needs to be competent in a teaching-learning strategy that will help to build prosocial values and social skills and at the same time also help students to achieve competency in academic content. With this rationale the investigator felt a need to explore the practicability of Cooperative Learning Strategy to develop group cohesiveness. Although Cooperative Learning is not a panacea for all the socialization deficits students might exhibit, it provides a forum to teach children how to socialize in appropriate ways along with optimizing their learning.

Cooperative Learning Strategy

Cooperative Learning Strategy is a process in which "knowledge is not transferred from expert to learner, but created and located in the learning environment". From these definitions one could highlight that learning in a cooperative environment is dependent on the socially structured exchange of information between students in groups, active involvement of the learners, intergroup interaction, (Olsen & Kagan, 1992) in which students are held responsible for their team-mates' learning as well as their own (Salvin, 1990), and are motivated to increase the learning of others (Hancock, 2004; Olsen & Kagan, 1992).

Cooperative Learning Strategy (CLS) encourages students to work together cooperatively to reach a common goal. It is often referred to as a teaching methodology that provides opportunities for students to construct knowledge and develop skills in small structured group interactions. In their efforts to construct knowledge, students must work together as an interdependent team, encompassing the credo "all for one and one for all". By working cooperatively as a team, students get a "flavour" of real-world application, through the application of social skills, higher level thinking skills, and communication skills. Cooperative Learning Strategy is-
1. An instructional approach in which students work together in groups towards learning goals.
2. Instructional use of small groups so that student's work together to maximize their own and each other's learning.
3. Class members are organized into small groups after receiving instruction from the teacher. They then work through the assigned task till all group members successfully understand and complete it.

Group Cohesiveness

According to Cartwright (1969) "Group cohesiveness refers to the degree to which the members of a group desire to remain in the group."

Where the members place the welfare of the group above their individual gain of status one could notice a high degree of cohesiveness. The more highly cohesive the group, the greater is its ability to withstand adverse circumstances. Factors such as affiliation to particular institution, a need to achieve group goals and the need for power and status enhance group cohesiveness. Naturally cooperation enhances cohesive spirit while competition pulls them apart. Every member has a number of needs to be fulfilled such as need for recognition, security, acceptance and affiliation. These needs should be fulfilled in a group. Deprivation of these needs would disrupt the cohesiveness of the group. Therefore more cohesive the group, the greater is the degree of harmony and task productivity in it. Hence the investigator undertook the study to investigate the Effect of Cooperative Learning Strategy (CLS) on development of Group Cohesiveness.

Operational Definition of the Variables

Cooperative Learning Strategy (CLS): It is defined as students working together to "attain group goals that cannot be obtained by working alone or competitively"

Training Package: A compact plan of procedure to bring a desired standard or condition or behaviour, by instruction and practice Cooperative Learning Strategy (CLS).

Group Cohesiveness: The extent to which cooperative group members like each other, desire to continue to be part of the group, being satisfied with their group membership, attitude towards other members of the group, willingness to cooperate with other group members, willingness to work with others on the assigned tasks, provide more elaborate help and assistance to each other to achieve on- task, stronger perception of group cohesion, and social responsibility for each other's learning

Review of Related Researches

A plethora of research studies has found Cooperative Learning to be effective in promoting group cohesiveness among learners of all ages, gender and cultural background These results has been reflected

through the studies conducted by Salvin, R.E. (1980); Johnson, Johnson and Stanne (1986); Stevens and Salvin (1995); Caeter, LaQuita D.; Coleman, Lisa D.; Haizel, Michelle D. ; Michalowski, Lawerence A (2003); Krantz,S; McDermott, H.; Schaefer, L.; Synder, M.A. (2003); Buchs, Celine; Butera, Fabrizio; Mugny, Gabriel (2004); Gillies, Robyn M. (2004); Morgan, Bobbette M. (2004); Lai, C.Y.; Wu, Cheng-Chih (2006); Ahles, Paula M.; Contento, Jann M. (2006), Avcioglu, H. (2007); Strahm, M. F.(2007); Buchs, C.; Butera, F. (2009); Karababa, Z. Canan Candas (2009); Tolmie, Andrew K.; Topping, K. J.; Christie, D.; Donaldson, C.; Howe, C.; Jessiman, E.; Livingston, K.; Thurston, A.(2010); and Kadle, (2010). Their findings also suggest that most students liked working in cooperative groups and appreciated getting help from other students, especially for learning difficult concepts thus being beneficial in developing group cohesiveness. Thus Cooperative Learning provides valuable training in developing group cohesiveness skills needed to become effective group members and maintain the group.

Objectives

1. To prepare training package based on Cooperative Learning Strategy for the student teachers.
2. To study the effect of Cooperative Learning Strategy on Group Cohesiveness.

Null Hypotheses

There will be no significant difference in the Group cohesiveness in the student teachers of the experimental and control group.

Research Design

The study was restricted to the student teachers undergoing the B.Ed degree course through the English medium from the colleges of education affiliated to University of Mumbai, situated in Greater Mumbai. The design of the present study was True Experimental design.

Two Groups Randomized Matched Subject Post test only Design

$$R \quad X \quad O_2$$
$$R \quad C \quad O_4$$

The treatment in the form of training package based on CLS was given to the experimental group. The student teachers of both the experimental group and control group were pre tested and post tested for Group Cohesiveness. Two colleges of education were randomly selected from the population. Total of 200 student teachers were subjected to achievement pretest for the theory of Cooperative Learning Strategy (CLS). As for the professional courses 65% is the cutoff percentage for first class, hence those student teachers with less than 65% mastery on the theory of Cooperative Learning Strategy (CLS) were selected as subjects for the study. The experimental and the control group were equated by matching the achievement pre test scores. The sample for the experimental group and the control group consisted of 42 student teachers each. In order to measure group cohesiveness, the researcher prepared a sociometry scale comprising of 17 items for which the respondent had to provide three choices of their peer to work with during the classroom activities and for outside the classroom activities. The sociometry scale to measure Group cohesiveness was designed keeping in mind the activities that are conducted at any level of pre service training. The responses thus obtained were used to plot the Sociometric Matrices. The choices made by the members of the group are indicated in a sociometric matrix.

A sociometric matrix is a rectangular arrangement of numbers indicating the choices made by the members of a group. In the matrix the numeral 1 is used to indicate a choice, while 0 is used to indicate no choice. By adding the choices in each column, it is easy to find the extent to which any group member is chosen by others in the group for each question. Thus the choice status is computed from sociometric data for every question for every student teacher. The choice status is the measure of the extent to which a member is chosen by his group. The index is calculated by the following formula:

$$CSi = ci / N-1$$

Where,

CSi = Choice of status of the individual i

$?ci$ = the sum of the choices in the subject column

N = the number of individuals in the group

Every student teacher's mean of choice status index for all the items was calculated. The mean of all the means of choice status index for all student teachers was calculated for the experimental and control group and was compared using t-test.

Training Package Based on CLS

A training package based on Cooperative Learning Strategies [CLS] was developed by the researcher on the lines of *ADDIE* model which is the generic process consisting of five phases—Analysis, Design, Development, Implementation, and Evaluation.

The training programme provided training for approximately 50 strategies. The training programme was implemented using the different strategies of Cooperative learning approximately 50 hours of which 26 hours were in a face to face mode and 24 hrs was through outside classroom activities either face to face or asynchronous on line activity.

The components of the training package were developed by following the guidelines, specifying the goals and objectives, conducting learner's existing behaviors, designing activities, assembling the content assets, administering a procedure and making an evaluation. The activities were designed in a pre planned sequence according to the schedule planned prior to commencement of the program. Each component of training package was designed in order to enhance group cohesiveness among the student teachers.

The training package was pilot tested for a period

of 18 hours on 14 student teachers. Based on the pilot study the researcher made necessary changes to the duration of the activities, the physical arrangement of the classroom and nature of the material used for the activities.

Data Collection

The researcher subjected the Experimental Group to the Cooperative Learning Strategy by using the training package. The reflections of the subjects of the experimental group were recorded daily in the diary maintained by them. The researcher also recorded her daily observations of the student teachers. At the end of the treatment, Sociometric Test for measuring group cohesiveness to the experimental and control group.

Data Analysis

The data was analyzed by using Paired t-test for comparing the experimental and control group for Group cohesiveness. Table 1 shows significance of difference in the post test means of experimental and control group

Table 1
Significance of Difference of Means of Group Cohesiveness

Group	N	Mean	SD	SE_M	r	$\acute{o}_D$	t ratio	LOS
Experimental	42	12.86 (M_1)	2.201	0.339	0.220	0.616	6.978	0.01 level
Control	42	8.561 (M_2)	3.825	0.590				

Findings

Table 1 reveals that for df=41, calculated t is greater than tabulated t i.e calculated t=6.978 and tabulated t=2.69. Hence null hypothesis is rejected at 0.01 level. The Training Package based on Cooperative Learning Strategy was found effective in developing Group cohesiveness among the student teachers of the experimental group.

The Training Package demanded that the student teachers work in cooperative base groups which made them comfortable with Cooperative Learning. The Training Package based on CLS required the student teachers to form new groups as specified, complete the tasks in the respective groups and report the work done to the Cooperative Base Group. This provided an opportunity to all the student teachers to build friendship and experience closer relationships between all the student teachers of the group. Such arrangement also pointed out that all types of students can succeed, share, and provide help. The Training Package demanded completion of tasks in the classroom and also outside the classroom which provide opportunity to increase cooperation in the class and out of the class. The Training Package demanded completion of task by all the group members in coordination which provided opportunities of working with others and trying to help them. This also asserted that Cooperative Learning made everyone responsible for his/her part in the group work and responsible for helping others with their parts. The Training Package demanded the student teachers get involved more and contribute to their work and completion of the assigned task. This would probably explain the reason for higher scores of Group cohesiveness among the experimental group.

Reflections of Participants

The researcher recorded the reflections of the participants from verbal responses made by the participants after termination of each day's session and on the basis of a diary maintained by the participants on the daily basis. Nearly 70% of the participants expressed initial reluctance at being grouped with relatively unknown participants. But with continued involvement in Cooperative learning activities the student teachers developed increased cohesiveness, interdependence and cooperation with a wide variety of student teachers.

Observations of Participants

The researcher recorded the observations of the participants during and after the day's session. The cooperative base group task developed in the members a 'WE' feeling, a feeling of affiliation, group consciousness and cohesiveness. If a member due to some unavoidable personal problem was unable to complete the outside classroom activity, the other members pitched in and made adjustment to accommodate the member and ensured the completion of the task.

Conclusion

The National Curriculum Framework for School Education in India suggests 'Education for a Cohesive society' and is given the first place among the curricular concerns in the National Curriculum Framework for School Education, 2000. It mentions the need for the provision of equal opportunities in access as well as in the conditions for success, for the promotion of equality. These equalities should be perceived by the learners in routine classroom transactions. Purposeful use of appropriate methodologies of education can make it happen Educationists such as Plato, Rousseau, Comenius, Mahatma Gandhi, Aurobindo and Dewey have also advocated cooperative methods of teaching and learning in their discussion with special concern for societal implications (Kaur, 1992). Based on the findings of the study and the conclusion reached the following recommendations can be reached:

1. Student teachers may be encouraged to practice the Cooperative Learning Strategy in their practice lessons.
2. Since Cooperative Learning has been proven to have the benefit of enhanced group cohesiveness more emphasis should be placed by the institution on promoting this alternative technique.
3. Cooperative learning strategy may be used to promote group cohesiveness.

References

Australia National Training Quality Council (2006).Training Package Development Handbook Funded by Commonwealth Department Of Education, Science and Training, Home page of Department of Education, Science and Training, Retrieved December 29, 2006 from World Wide Web: http://www.dest.gov.au.

Falchikov, N. (2001). *Learning Together: Peer Tutoring in Higher Education.* London: Routledge Falmer Taylor and Francis Group.

Hancock, D. (2004). Cooperative Learning and Peer Orientation Effects on Motivation and Achievement. Journal of Educational Research, 97 (3), 159 [ERIC Document Reproduction Service No. ERIC #: EJ698544]. Retrieved November 8, 2006 from World Wide Web: http:// eric.ed.gov/

Jangira, N.K. and Ahuja, A. (1992). *Effective Teacher Training: Cooperative Learning Based Approach.* New Delhi: National Publishing House.

Jhonson D.W., Johnson R.T. (1999). *Learning Together and Alone*. (5th Edition) Boston: Allyn and Bacon.

Johnson, D. W., Johnson, R. T., & Holubec, E. J. (2002). *Circles of learning: Cooperation in the classroom* (5th Edition). Edina, MN: Interaction Book Company.

Kaur, R. J. (1992). A comparative Study Of the Educational Philosophies of Sri Aurobindo and Mahatma Gandhi and their relevance to the Modern Educational System. Fifth Survey of Educational Research-Volume II- Abstracts p1185, 1988-1992, New Delhi, NCERT.

Krecic, Marija Javornik; Grmek, Milena Ivanus (2008). Cooperative Learning and Team Culture in Schools: Conditions for Teachers' Professional Development. *Teaching and Teacher Education: An International Journal of Research and Studies 24* (1) 59-68. [ERIC Document Reproduction Service No. ERIC #: EJ782415]. Retrieved June 20, 2010 from World Wide Web: http:// eric.ed.gov/

What is Cooperative Learning. Retrieved January 11, 2009 from the World Wide Web:http://learningandteaching.dal.ca/taguide/WhatisCooperativeLearning.html.