Heterogeneity of Cooperative Learning in Multicultural Classroom Promoting Group Cohesion

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Abstract
In India, cultural diversity is evident and a normal part of educational setting at every level. The challenge of 21st century is not just to teach the prescribed subjects to students delivering knowledge, but also to teach in such a way which caters the need of the multicultural classroom. Cooperative learning is one of the innovative approaches in the field of education. The research paper presents a study conducted in Agra. 50 students of tenth standard were taught by cooperative learning involving heterogeneous grouping in terms of IQ and gender observing its effect on Social Skills of students. The result indicated that social skills were enhanced during the period of experiment. Challenges confronted by researcher, and scope for further research is discussed.

Keywords: Cooperative Learning, Heterogeneous Grouping, Social Skills, Group Cohesion.

Introduction
The challenge of 21st century is not just to teach the prescribed subjects to students delivering knowledge, but also to teach in such a way which caters the need of the multicultural classroom. Students from different cultures study under the same roof, get the same knowledge and share the same environment irrespective of their cultural background. The Multicultural Education approach promotes the transformation of the educational process to reflect the ideals of democracy in a pluralistic society. Students are taught content using instructional methods that value cultural knowledge and differences. But learning in multicultural classrooms poses a major challenge to students as well as teachers. To provide learning environment suitable for students from different social, cultural, and linguistic backgrounds is a challenging task for the teachers. It is no longer satisfactory to just display pictures of groups different from the mainstream culture or to assign a week to celebrate multiculturalism, which are practices still found in many classrooms. Classroom should be such that it respects every culture and treats them equally. Typically, school failure is attributed to a lack of congruence between home and school cultures (Phalet et al 2004). For the effective learning in multicultural classroom, Banks (1997b) used the term ‘equity pedagogy’ involving the alteration of teaching methods by the teachers to accommodate diverse cultural differences of various students which in turn enhances academic achievement. It is proved to promote the phenomena of equality and justice in the classroom leading to the epitome of democracy raising new questions and providing directions by a multitude of voice. Even a very good teacher is handicapped in absence of a suitable instructional technique. So, to a great extent, use of appropriate teaching strategy is the soul of multicultural classroom. Some researchers believe that meeting the needs of diverse students is, and will be, even more challenging for middle school teachers than other teachers, because they must also help students deal with the unique developmental changes that occur during this time (Johnson, 2005).

Allison and Rehm (2007), in a survey ‘to assess the effectiveness of variety of teaching strategies’ on middle school teachers found cooperative learning to be one of the four effective teaching strategies out of the ten predefined classroom practices and instructional startegies in a multicultural setup. Cooperative learning is termed as a learning way in which the students learn in groups. In this type of learning, the students interact with each other and build upon their school relationships, which is different from the traditional way of teaching. The main idea behind cooperative learning is to teach the students to be a functional part of a group so that they have grouped responsibilities as well as individual responsibilities. This type of learning not only increases the study skills of a student but also develops the communication skills. This type of learning is essential in Multicultural society (Indani, 2013). Grouping students from different cultural backgrounds into heterogeneous groups and instructing them to collaborate and cooperate with each other on activities and problem-solving tasks has been found to promote inter-ethnic friendships, develop cross-cultural understandings, and build teamwork while also enhancing literacy and language acquisition among linguistically diverse students (Crandall, 1999; Crandall, Jaramillo, Olsen, & Peyton, 2001; Saravia-Shore & Garcia, 1995; Slavin, 1990; Snowman & Biehler, 2003).
Cultural background influences students’ perceptions and their interpretation of the learning environment (den Brok et al. 2003; Nguyen 2008). The different perceptions that students with different cultural backgrounds have of this learning methodology (e.g., the perception of the relevance of cooperation in the group) is a relevant problem in its implementation. Conflicts among students might emerge due to a lack of understanding of each other’s cultures (Hofstede 1986) and to the stereotyped perceptions of ‘the other’ (Coelho 1998). In addition, students tend to form working groups with those with whom they share similar backgrounds and interests (Coelho 1998). Allport (1954) recommends forming working groups with students from different cultures to help to equalize the different cultural groups within the classroom. By sharing common learning goals, the group gradually develops a sense of identity and purpose, which contributes positively to the group’s interaction and to reducing the stereotypical visions about other group members (Coelho, 1998 in Tielman, 2012). These heterogenous groups can be made based on IQ, gender, cultural background, achievement etc.

This paper checks the effect of cooperative learning in multicultural classroom on the social skills of students, which is the degree of group cohesion. Single group pre-test post-test design is used in heterogenous group in terms of gender, IQ and culture.

Objectives Of The Study
Following objectives were framed for the present study:
a) To develop and implement instructional material based on cooperative learning approach.
b) To study the effect of co-operative learning technique on group cohesion among students.

Hypothesis
To achieve objective two, following hypothesis is framed: “There will be no significant effect of cooperative learning on the social skills of students.”

Design And Sample
The method of this study is Developmental and Experimental Study, used to develop instructional material and to know the effect of co-operative technique on the social skills of students after teaching in 20 sessions. The sample for the present study includes 50 students of tenth class, from different cultures having varying IQ and boys and girls in a ratio of 3:2. The heterogenous groups were made having boys and girls in the same ratio as found, i.e. 3:2. Each group had five students from different cultural background and every group had 2 students with high, 2 with average and 1 with low IQ. Self-made tool was employed for measuring the effect of co-operative learning approach of teaching on the social skills of students. The strategy of cooperative learning used was Think-Pair Share. This strategy can be viewed as a family of three-step techniques. (a) Students work individually. (b) Students take turns to tell or describe with their partner. (c) Students discuss and report to the class. They share what they have learned with group members (Lyman, 1992). The students were taught science using this strategy including the various Life Processes (Digestive, Respiratory, Circulatory and Excretory System), Control and Coordination and Balancing Chemical Equation. The topics were taught in the same sequence as given here.

Statistical Design And Procedure
The development of instructional material is validated by the pilot study and opinion of the experts. The developed instructional material is used to teach the subjects for 20 sessions in an experimental group followed by observing its effect on the Social Skills of the students. Self constructed observation schedule was employed on the students. Tool of Social skills includes the items indicating the strength of leadership, empathy towards others, sympathy to other’s feelings etc. The scores obtained after observation in the classroom were analysed using Mann Whitney U test to test the significance effect of the co-operative learning technique on the social skills. Instructional material was prepared based on cooperative learning method.
In order to have effective cooperative learning the following 5 essential elements are needed: which are Positive Interdependence, Face-to-Face Interaction, Individual Accountability, Social Skills and Group Processing. Positive Interdependence was maintained by providing them individual goals (Individual Accountability) success of which leads to the success of group goal as well, the students of different culture have to interact with each other if they want their group to get success, so the group processing improved as time passed.

The effect of the Co-operative Learning method on the skills of students is seen by comparing the scores of the students first day and fourth day observation by Mann Whitney U Test. The value is found to be significant indicating that there is significant improvement in the co-operative skills of students over the experimental period. (Table 1)

| Table 1 Exhibiting difference between the scores of first and the last observation |
|----------------|----------------|----------------|
| Days           | Sample Size   | Summation of Ranks | $U_{obt}$ |
| Day 1          | 50            | 110.5             | 5.5       |
| Day 20         | 50            | 295.5             |           |

Besides this statistical proof that cooperative learning affects the social skills, first hand observation by the instructor reveals some changes in the behaviour of students during the experimental period. Students in the beginning were enthusiastic about the group activities they were told to have, but being in the groups assigned by the instructor did not seem a good situation to them. On the first and second day, students were hesitant to speak up and not all of them were participating in the discussion. The change started from 4th day, when students became confident and they started to participate in the discussion of their respective groups. But even then, not all the students were willing to participate in the group, some like to listen and put forward their viewpoint only when asked. Based on these observations, we can say that the social skills of the students developed leading to proper functioning in the group, which in turn gave rise to group cohesion, which is the feeling of the members of the group to ‘fall and rise’ together. The group cohesion in classroom is actually the miniature of the social cohesion in society. The study provided the evidence that cooperative learning improved social skills leading to social cohesion when seeing by the perspective of society.

**Challenges In Implementation**

As with the beginning of every new venture, initially, teachers and students had to face various challenges. The main problems which arise include need to prepare extra materials for class use, fear of the loss of content coverage, not trusting students in acquiring knowledge by themselves, lack of familiarity with cooperative learning methods, students lacking the skills to work in group etc.. Students also did not find this technique easy as they were supposed to study on their own in such setting; they need to prepare their part of the topic, which makes them responsible for their learning. This was quite a new thing for the students.

**Conclusion**

Dalglisg C. (2002) reported that small groups appear to encourage discussion in multicultural classroom. Proving his point, the present study unveiled the effectiveness of cooperative learning in the phenomenon of social cohesion. Cooperative learning proved to be appropriate strategy to be used in multicultural classroom. Future is in the hands of people who have the power to lead, to cooperate and to tackle all kinds of situations involving every strata of society. And we can make such students in our classroom by cooperative learning method developing such social skills in them that they can lead a socially cohesive nation. On the whole, although there are various problems concerning learning and teaching in a multicultural environment, it should not be forgotten that there are also serious benefits that can be taken from multicultural education. What is more, learning and teaching in multicultural settings is inevitable as the world is a global village nowadays and our mobility abilities are bigger than ever (Wieczorek, 2009). The school, as Dewey said, is a miniature of the society. So, the group cohesion of classroom is inevitably the social cohesion when these students will function in society.

The society requires a method which encourages students to interact, help and share with each other which makes them a good citizen forming an intellectual nation, bringing social cohesion and social equity and cooperative learning serves all the purposes.

**Limitatons And Path Ahead**

The research, being experimental, included a limited number of participants, and was done on grade tenth. The groups can be made heterogenous including many other criteria in future researches and it can be done in other subjects as well. Same and any of the other methods of cooperative learning can be used to compare traditional and cooperative learning. Effect of cooperative learning on other social phenomenon is also a field of investigation. Since this study included the sample of agra city only, the results of this study can further be justified and validated by such similar studies on various population, grades and cultures. Cultural diversity is
even more at college level, so similar study can be done to see whether it has the same positive effect in that case as well.

Reference


