

Learning Enhancement through Collaborative Learning in Inclusive Schools

KEYWORDS	collaborat	ive learning, Inclusive Education
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ABSTRACT A variety of teaching strategies have been advocated for use in science and mathematics classroom, ranging from teacher-centered approach to more students-centered ones.(E Zakaria and Iksan, 2007). To minimize the competition and labeling effects among the students in a diverse classroom, the concept of Cooperative and Collaborative learning was aroused. Collaborative learning has been widely recognized as a significant educational paradigm for its promotion of student's achievement and collaborative skills (Slavin, 1995; Thousand, 1994). Collaborative learning has received increased attention to educate students with disabilities in the least restrictive environment children with disabilities brings social needs, as well as academic needs, which are not easily met in the regular class-room. The study was concluded that collaborative learning helped children to improve their learning.

INTRODUCTION

In today's education system, teachers are expected to teach in a way that enables pupils to learn science and mathematics concepts while acquiring process skills, positive attitudes, values and problem solving skills. A variety of teaching strategies have been advocated for use in science and mathematics classroom, ranging from teachercentered approach to more students-centered ones.(E Zakaria and Iksan, 2007)

To minimize the competition and labeling effects among the students in a diverse classroom, the concept of Cooperative and Collaborative learning was aroused. Collaborative learning has been widely recognized as a significant educational paradigm for its promotion of student's achievement and collaborative skills (Slavin, 1995; Thousand, 1994).

Collaborative group learning, however, reflects a much different paradigm of teaching and learning. It is grounded in *constructivism*, a psychological and philosophical perspective suggesting that individuals or groups, through their experiences, shape or construct what they learn and understand (Bruning, Schraw, & Ronning, 1995).

Students cooperate among themselves and with the teacher as they actively engage in the learning process and take ownership for their learning (Goodsell, Maher, & Tinto, 1992).

Research shows that collaborative learning compared to individual and competitive learning scenario brings students to a higher achievement level, raises their problem solving- abilities, offers cognitive advantages to learners and also has positive influences in enhancing the development of personality traits that are beneficial for future learning or future autonomous or co-operative learning and working (Tozer S. E. et.al. 1995; Webb, N. 1984; Bargh, J.A.; Schul, Y. 1980).

RATIONALE

Johnson & Johnson (1996) stated that low activity group students work harder when grouped with higher activ-

ity students. Group competition promotes cohesiveness among group members and group spirit.

Collaborative learning has received increased attention in recent years due to the movement to educate students with disabilities in the least restrictive environment children with disabilities brings social needs, as well as academic needs, which are not easily met in the regular classroom. the use of classroom collaborative or cooperative learning peer groups with cooperative goal structures is a promising alternative to better serve students with disabilities in a least restrictive environment.

This study suggests ways that the regular school classroom can be used to develop, implement, and monitor the effects of collaborative learning as necessary factor for the success of the inclusive programme

OBJECTIVES

Implement Collaborative Learning for science subjects among VI Grade children

Analyze the academic performance of children in Science subjects before and after introduction of Collaborative learning

METHOD

SAMPLE

The research study was implemented in inclusive schools under Sarva Shiksha Abiyan (SSA) in Coimbatore District. The Sample for this Experimental Study consisted of 30 children including 4 special needs children of VI Grade. The special need children include 3 visually impaired and one hearing impaired children.

Research Design

Quasi-experimental design was adopted in the Research study. The layout is as follows:

 $R = Q_{1 \times} Q_{2}$

The Q1 and Q2 denote pretest and posttest respectively. Here x means treatment and R indicates randomization.

RESEARCH PAPER

IMPLEMENTATION OF COLLABORATIVE LEARNING

Pretesting: Children were assessed of their knowledge and concept skills of the Science subject prior to the implementation of Collaborative Learning.

Grouping: The students were grouped in such a way: one high achiever, a low achiever, two medium achiever, a disruptive student if any and a special need student. In this study a total of five groups were performed. The Collaborative learning ensures that all children in the group learning and it indirectly helps social skill development

Testing Tool: The tool had 15 objective type and 5 short answer questions taken from the lesson completed prior to the lesson taken for collaborative learning.

Implementation of Collaborative Learning: Introduction of a Science lesson 'Methods of Separation' adopting collaborative learning method. This has taken 10 collaborate group learning session stretching for a month. The investigator was monitoring and facilitating learning while students were in collaborative learning.

Posttesting: the performance of children in the Science subject learnt through Collaborative learning was assessed using as the same procedure of pretesting

Results1

Table 1: Academic performance of children in Science subject

Variable	N	Mean	S.D	t value	
Pretest	30	72.07	13.69	0 40**	
Posttest	30	77.17	12.35	10.40	

**Significant at 0.01 level

It is evident from the above table that t-value for the performance of children in the Science subject before and after introduction of Collaborative learning is 0.40 which is significant at 0.01 level. It indicates that there is a difference between pre and post scores of the children in Science subject. Hence the null hypothesis stated as that there is no significant difference in the performance of Science subject before and after introduction of collaborative learning is rejected. Hence it is concluded that collaborative learning helped children to improve their learning.

Result 2

An analysis was made to find out the scores of special need children while in they are in collaborative learning. The following table presents the scores obtained in the pre and posttests.

Table Er i chlorinance or children with special needs	Table	2:	Performance	of	Children	with	special	needs
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No. Special Need Children	Pretest (Mean)	%	Posttest (Mean)	%
4	60	60	78	78

The above table presents that children with special need showed considerable improvement in their learning through collaborative learning. The result states that the pretest score was 60% whereas it was 78 % in the posttest and thus indicating the effect of collaborative learning strategy facilitating better inclusion of children with special needs

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