



## **REINVENTING EDUCATION THROUGH COOPERATIVE LEARNING**

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### ***Abstract***

*This paper explores Cooperative learning strategy as a means to redefine current approaches to education . Based on the experimental study conducted on B.Ed students , the authors discusses effect of cooperative learning on academic performance , self esteem and attitude towards learning of pupil teachers . Curricular content of B.Ed course (science method) was delivered through Cooperative learning strategies. The study was implemented for a period of one month. The main difference in implementation was in the pedagogical approach employed to facilitate learning. The experimental group was exposed to various Cooperative learning strategies viz Corners, Phillips 66, Think pair share, Three step interview, Round Robin brainstorming, Number head together and Jigsaw. Pre–test and a post–test were given to the students to determine their academic performance, self esteem and attitude towards learning before and after the study. The result indicates that there was significant difference in academic achievement, self esteem and attitude towards learning of the pupil teachers after implementation of cooperative learning strategies. By applying this approach , it is proposed that learning can be understood from more complex perspectives , and consequently more amenable with emergent social, recreational and educational networks.*

**Keywords:** *Cooperative learning strategy, academic performance, self esteem , attitude towards learning*

### **INTRODUCTION:**

In the field of education, instructional design has traditionally been applied using established models, typically using a top-down approach, that focus on explicit environment, strategies,

activities and outcomes. However, when different traditions of design are considered, more creative and organic elements are emphasized, which also embrace a 'bottom-up' strategy. In this paper the authors present a study that advocates using cooperative learning as an instructional design to redefine the way we conceptualize and implement learning environments.

Effective teachers never stop exploring different ways to improve student achievement. As there is no single, perfect solution, educators look to research to guide their practice. Recent innovations in teaching learning have allowed an unprecedented look into the way the learning occurs. Cooperative learning strategy is one of such practice which has the potential to revolutionize teaching and learning.

Cooperative learning provides learning environment based on specific elements which intends to increase the potential for reach and deep learning . Positive interdependence, individual accountability, face to face interaction, small group skills and group processing are some of these elements which enhances student learning.

Keeping this in mind a programme was developed to teach B.Ed students through cooperative learning. The programme was developed on the basis of ADDIE model of Instructional Designing. The ADDIE model is a generic model which includes five phases that represents dynamic , flexible guidelines for building effective teaching learning.

The phases are as follows:

**Analysis Phase**-This phase is the process of defining what is to be learned ? Instructional goals are defined in this phase.The emphasis is given on assessment of needs, identification of the problem and analysis of the task, analysis of the content . Target group is decided.

For the present study analysis was done in the following manner.

- Target group -Twenty science method students from S.T.College of Education, Mumbai were chosen as the target group. Student teachers were considered as a target group because they are the future teacher who can make their teaching more effective by employing these techniques and strategies.
- Need analysis – The target group were student teachers who were expected to use innovative teaching learning techniques in the future.
- Content analysis- The unit ‘ Methods and approaches of teaching science’ was chosen for teaching through cooperative learning. This topic was specifically chosen

as it had better scope for employing cooperative learning strategies. Content analysis was carried out.

- Time duration - For each session and for the whole programme time frame was decided. Each session of fifty minutes and total fifteen hour of training was decided to be given.
- Delivery mode – It was decided to use face to face mode for teaching the content through cooperative learning strategies.

**Design Phase** – In this phase how to reach instructional goals are outlined. Objectives are written, instructions are planned, resources are identified and tests are developed.

For the present study ,

- Objectives were formulated for teaching the content.
- Blue print for achievement test was developed.
- Achievement test was developed (Pre and post test).
- Self esteem scale was identified considering the age group.
- Attitude scale was developed for knowing students attitude towards cooperative learning.

**Development Phase** - During this phase lesson plans and learning material are developed. Media of instruction is decided, supporting documentation are developed.

For the present study,

- Session plan for each activity was developed. Total 12 sessions were planned.
- Cooperative learning strategies viz Corners, Phillips 66, Think pair share, Three step interview, Round Robin brainstorming, Number head together and Jigsaw were used for developing the sessions.
- Sequencing of the content was decided.
- Procedure for implementation of the session was decided.
- Feedback mechanism was decided.
- Supportive documents for conducting the sessions were prepared.
- Overall duration for completion of the programme was calculated.



**Implementation Phase** – During this phase whatever planned in the design and development phase is actually implemented.

- The developed programme was implemented for about one month.
- Pre test was administered before implementing the sessions.
- Orientation about the programme was given to students.
- Sessions were delivered twice a week using cooperative learning strategies.
- Programme was implemented for about one month.

**Evaluation Phase** – The effectiveness of the programme is checked during this stage. Formative and summative assessment was done.

- Formative assessment was done after each session by conducting discussion and asking questions.
- Students' behavior were observed and noted during each session.
- Students were told to write reflective journals after each session.
- Post test was administered after the completion of the programme.

### **Findings and Discussion**

1. There is significant difference in the pre test and post test scores of the students' achievement in science after teaching them through Cooperative learning strategies .

The following table shows the statistics for achievement in science.

**Table 1**

**Relevant statistics for achievement in science**

<b>Test</b>	<b>No. of students</b>	<b>Mean</b>	<b>SD</b>	<b>t value</b>	<b>LOS</b>
<b>Pre</b>	20	3.85	1.98	16.95	0.01
<b>Post</b>	20	20.8	4.61		

**Discussion:** Cooperative learning is a teaching strategy in which small groups , each with students of different levels of ability , use variety of learning activities to improve their understanding of the subject . Group goals are achieved through shared learning. This helps

in group learning. It is not the success of individual but success of whole group so everybody has to share the responsibility of learning. It leads to learning of all the individuals in the group.

2. There is significant increase in students' self esteem after teaching them through Cooperative learning strategies.

The following table shows the statistics for increase in self esteem of students.

**Table 2**

**Relevant statistics for increase in students' self esteem**

	No. of students	Mean	SD	t value	LOS
Pre test	20	77	10.70	7.66	0.01
Post test	20	93	6.95		

**Discussion:** During Cooperative sessions students with different abilities worked in groups. It might have happened that due to individual accountability students who had low self esteem have felt the self worth and feeling might have originated in them that they are nowhere less but equally responsible in group's success. Thus students with shy nature might have developed the ability to interact with group due to peer support. This might have enhanced their self esteem.

3. There is significant change in attitude towards Cooperative Learning after teaching them through cooperative learning strategies .

The following table shows the statistics for change in attitude towards CLS .

**Table 3**

**Relevant statistics for change in attitude towards CLS**

	<b>No. of students</b>	<b>Mean</b>	<b>SD</b>	<b>t value</b>	<b>LOS</b>
<b>Pre test</b>	20	73.4	8.70	6.51	0.01
<b>Post test</b>	20	89.1	6.09		

**Discussion:** During Cooperative sessions students were actively participated. This might have led to development of interest in them and their opinion regarding the working in cooperative learning group might have changed. Apart from this working in cooperative group and following various strategies which they have never used before might have given them change from routine lecture method. This in turn might have led to change in their attitude towards CLS.

**Suggestions for Teachers:**

- Cooperative learning helps in team building. This is excellent strategy which allow students to construct their own knowledge and help them identify their capacities and enhance them. So teachers should make use of this strategy in her teaching.
- In Cooperative learning students get chance to express themselves and teachers get chance to understand learners so teachers should make use of this strategy.
- Cooperative learning helps the weaker students in improving their performance so teacher can use this strategy for improving performance of weaker students.
- It improves classroom results by making the students more involved, motivated and determined to learn and achieve the learning targets.
- Cooperative learning helps in building students' self confidence and self esteem in a better way than traditional teaching.
- Cooperative learning is helpful in the development of social qualities and virtues among students for becoming an adjusted social being. So teachers should make use of this strategy in the teaching learning process.

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