CHAPTER VI

SUMMARY

6.1 INTRODUCTION

_We are each of us angels with only one wing, and we can only fly by embracing one another._

(luciano de crescenzo)

Education is the process of helping to change students’ knowledge and behavior in desired ways. And Educating with pleasure means generating enthusiasm: All the participants in this process feel alive, share creativity, generate original responses, have fun, play and enjoy learning. Cooperative learning is a strategy that develops healthy interaction skills, promotes success of the individual student and group members, and forms personal and professional relationships. Cooperative Learning is an enjoyable method in learning it creates an atmosphere in which each student will make an effort to reach success. It focuses on the achievement of the whole group. Therefore, the Cooperative Learning is goal oriented, encouraging every member in a learning group to contribute to the group’s success.

Cooperative learning facilitates academic achievement and creates positive social development among a wide variety of students and for different subjects. As the importance of being able to use other languages than one’s mother tongue is encouraged in the globalized world. English being a global language, which is spoken by more and more people in the world. Learning a foreign language (English) throughout history has always been an important practical concern (Richards & Rodgers, 2001). The importance placed on foreign language learning has led to the constant developmental changes in language teaching to better fit the needs of the learners for a better outcome in learning. One such development was the use of cooperative methods in language teaching. Cooperative learning has been proclaimed as an effective instructional method in promoting linguistic development of learners of English as a social language cooperative learning has emerged as a
significant concept and instructional practice in the field of second language education. Cooperation means working together to accomplish shared goals. In cooperative students work together to maximize their own and each other’s learning. On the other side, in cooperative learning group, members of a cooperative group generally meet all reasonable expectations of achievement academic goals. In cooperative groups, students work together on specific tasks or projects in such a way that all students in the group benefit from the interactive experience. Since learners are different in their intellectual capacity, their attitude and their linguistic skills. The cooperative language learning approach puts primary importance on interaction and meaning negotiation. The main goal of this approach is to enable students to communicate using target language Cooperative learning techniques, as opposed to conventional strategies, provide learners with opportunities to take more active roles in their own learning. Cooperative learning activities lead to peer interaction which itself promotes the development of language and the learning of concepts and content. cooperative learning maximizes second language acquisition by providing opportunities for both language input and output (Fathman & Kessler, 1993 cooperative learning also helps students to draw on their first language while developing second language skills. It includes opportunities for the integration of language and content learning. Research in the second language classroom indicates that cooperative learning is potentially beneficial for ESL students in a number of ways. It can maximize second language acquisition by offering opportunities for both language input and output. It can also help students draw on their first language while developing second language skills. It includes opportunities for the integration of language and content learning. Its varied applications were in harmony with the pedagogical implications of the input, socialization, and interactive theories of second language (L2) acquisition. This was because cooperative learning (CL) enhanced the motivation and psychosocial adjustment of second language learners (Dornyei, 1994). According to Olsen and Kagan (1992), cooperative learning increased interaction among learners as they restated and elaborated their ideas in order to convey or clarify intended meaning. This interaction contributed to gain in
second language (L2) acquisition. Cooperative Learning has been proven to be effective for all type of students, and for all the four linguistic skills. Present study is an attempt to study the relative effectiveness of co-operative learning strategy CIRC on Reading & Writing achievement in English among school students. In Cooperative Integrated reading Composition, four member mixed ability learning teams work together to complete their learning material. This mode of co-operative learning is specifically designed to develop reading and writing skill. Student’s follows a sequence of teacher instruction, team practice, team pre-assessments, and test. Students do not take the test until their teammates have determined that they are ready. Team rewards and certificates are given to team, based on the average performance of all team members on all reading and writing activities. Because students work on materials appropriate to their reading levels, they have equal opportunities for success. Students’ contributions to their team are based on their test scores and independently written compositions, which ensure individual accountability.

A lot of studies have been conducted in co-operative learning in relation to achievement. But review of related literature indicates that there is dearth of studies related to the effectiveness of co-operative learning strategy on reading and writing achievement among seventh graders. Review also shows that there is a lack of studies on co-operative learning in Indian classrooms. The present study is an attempt to study the relative effectiveness of co-operative learning strategy CIRC on reading and writing achievement among school students. The results of present study are expected to benefit the teacher, teacher educators and the students keeping in view the importance of English in school curriculum of secondary education.

6.2 RATIONALE OF THE PRESENT STUDY

English language has come to occupy a central place in the education system. To this effect, students are expected to have a good knowledge of English. As an international language, English is spoken in many international events and it is used as a medium for information on education, science, technology, culture, etc. Realizing the importance of English language, as the first foreign language and it is
taught as one of the compulsory subject valued for its educational and cultural significance.

English being a foreign language is a difficult subject to teach and learn. Most of the students do not attain the required competency because English is taught only as a compulsory subject and it is not used as a medium of instruction. Majority of the teachers in schools are using traditional competitive and individual learning method with lockstep or traditional learning group arrangements. In most of the schools, teachers have to teach a large class in which sixty to seventy students learn together. Christensen (1994) described three categories of problems, i.e. pedagogical, management and affective which were faced by the English language teachers in traditional teacher centered teaching approach. Traditional approach is not effective enough to promote language acquisition and Curricula renewed according to student-centered teaching approach require use of strategies, methods and techniques complying with a constructivist approach and involving active student participation in the learning process. One of the approaches parallel to this teaching approach is cooperative learning. Teachers can use this approach to stimulate students to acquire the knowledge as well as create interpersonal and team skills. Traditionally, classes always consist of good students and weak students. The weak students sit in isolation as they lose confidence in their ability to learn English. Working in groups, therefore, is believed to help solve this problem. Shy students who don’t like to speak in a large class are more comfortable speaking out in smaller groups. Group members can complement each other’s strengths and weaknesses in English. Each student has a different background and ability in English, which he or she can bring to the group. For example, one student might have a strong vocabulary that can supply to students with a solid background in grammar. Furthermore, poor students will benefit from interaction with better ones, and good students will feel proud that they play an important role in helping their weaker classmates.

Cooperative integrated reading and composition (CIRC) technique, one of the learning techniques based on cooperation, is designed to develop reading, writing and other language skills in the upper grades of primary education. CIRC technique presents a structure that increases not only opportunities for direct teaching in
reading and writing but also applicability of composition writing techniques (Açıkgöz, 1992; Yaman, 1999). CIRC technique is developed to support traditionally used “skill-based reading groups” approach. This research describes the rational, development, and evaluation of Cooperative Integrated Reading and Composition (CIRC), a comprehensive program for teaching reading, writing, and language art. The researcher wants to take the research about The Use of Cooperative Integrated Reading and Composition (CIRC) Method to Improve Students’ Ability in reading and writing skills in English.

6.3 STATEMENT OF THE PROBLEM

EFFECT OF COOPERATIVE INTEGRATED READING COMPOSITION TECHNIQUE ON READING -WRITING SKILLS IN ENGLISH AMONG 7TH GRADERS

6.4 OPERATIONAL DEFINITIONS OF KEY WORDS

Cooperative Integrated Reading Composition (CIRC) Cooperative Integrated Reading Composition (CIRC) are a comprehensive reading and writing program for students in grades 2 through 8. It includes story-related activities, direct instruction in reading comprehension, and integrated reading and language arts activities. In the present study, (CIRC) was employed as Cooperative learning Technique to improve students’ ability in reading and writing skills in English to seventh graders.

Reading Skill

Reading skills are specific abilities which enable a reader to read the written form as meaningful language, to read anything written with independence, comprehension and fluency, and to mentally interact with the message. Reading skill was measured by the scores obtained on Reading Comprehension Test to be developed by the investigator.

Writing Skill

Writing skills are specific abilities which help writers to put their thoughts into words in a meaningful form and to mentally interact with the message. It helps the learners to gain independence, comprehensibility, fluency and creativity in writing. Writing skill was measured by the scores obtained on Writing Expression Test to be developed by the investigator.
Achievement in Reading Comprehension & Writing Composition

Achievement is a measure of performance, knowledge, skill of a person in a given area at a particular time. Performance in Reading Comprehension and Writing Composition Achievement Test in English (developed by the investigator) as indicated by the scores of students is considered English achievement in the present study.

6.5 VARIABLES INVOLVED

In experimental research the relationship between two types of variables namely, independent and dependent variables is studied. Independent variables are the cause while dependent ones are the effects. Besides, there are intervening variables also. All these three kinds of variables, identified for the study are as discussed below.

Independent Variables

The co-operative learning strategy, which was used in the present study to see the effects on the achievement of reading & writing skills in English, constituted as independent variables. The experimental group was taught through Cooperative Integrated Reading Composition Technique (CIRC), and the control group was taught through Conventional Method. Thus Instructional Treatment- Cooperative Integrated Reading Composition Technique (CIRC) , Conventional Method and gender was independent variables for the present study.

Dependent Variables

Achievement of Reading Comprehension & Writing Composition skills in English were treated as the dependent variables.

Intervening Variables

Those variables, which have their effects on the learning outcomes, are known as intervening variables, and can influence both the independent and dependent variables. Different intervening variables in the present study are Type of Schools (affiliated to Haryana Board), Grade of Class (VII), Subject to be Taught (English),

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Intelligence of Students (moderate intelligence), Socio-Economic Status (middle stratum) of students etc. which were controlled up to greatest extent.

6.6 OBJECTIVES OF THE STUDY

A. Objectives related to Reading Comprehension

1. To develop Reading Comprehension Achievement test in English for 7th graders.

a) (Before Experimental Treatment)

2. To compare the mean achievement scores in English reading comprehension of Experimental and Control (E & C) group students to be taught through Cooperative Integrated Reading Composition (CIRC) and conventional method of teaching before experimental treatment.

3. To compare the mean achievement scores in English reading comprehension of boys of Experimental and Control group (BE & BC); and girls of Experimental and Control group (GE & GC) to be taught through Cooperative Integrated Reading Composition (CIRC) and conventional method of teaching before experimental treatment.

b) (After Experimental Treatment)

4. To study the effect of treatment on achievement in English reading comprehension of students after experimental treatment.

5. To study the effect of gender on achievement in English reading comprehension of students after experimental treatment.

6. To study the interaction effect of treatment and gender on achievement in English reading comprehension of students after experimental treatment.

7. To study the effect of treatment on mean gain achievement scores in English reading comprehension of students after experimental treatment.

8. To study the effect of gender on mean gain achievement scores in English reading comprehension of students after experimental treatment.
9. To study the interaction effect of treatment and gender on mean gain achievement scores in English reading comprehension of students after experimental treatment.

B. Objectives Related to Writing Composition

10. To develop Writing Composition Achievement test in English for 7th graders.

c) (Before Experimental Treatment)

11. To compare the mean achievement scores in English writing composition of Experimental and Control (E & C) group students to be taught through Cooperative Integrated Reading Composition (CIRC) and conventional method of teaching before experimental treatment.

12. To compare the mean achievement scores in English writing composition of boys of Experimental and Control group (BE & BC); and girls of Experimental and Control group (GE & GC) to be taught through Cooperative Integrated Reading Composition (CIRC) and conventional method of teaching before experimental treatment.

d) (After Experimental Treatment)

13. To study the effect of treatment on achievement in English writing composition of students after experimental treatment.

14. To study the effect of gender on achievement in English writing composition of students after experimental treatment.

15. To study the interaction effect of treatment and gender on achievement in English writing composition of students after experimental treatment.

16. To study the effect of treatment on mean gain achievement scores in English writing composition of students after experimental treatment.

17. To study the effect of gender on mean gain achievement scores in English writing composition of students after experimental treatment.
To study the interaction effect of treatment and gender on mean gain achievement scores in English writing composition of students after experimental treatment.

6. 7 HYPOTHESES OF THE STUDY

A Hypotheses Related to Reading Comprehension

Based upon the objectives of the study, the following hypotheses were devised.

1. (Before Experimental Treatment)

$H_{01(a)}$ There exists no significant difference in the mean achievement scores in English reading comprehension of the two groups (E and C) of students taught English through Cooperative Integrated Reading Composition (CIRC) and conventional method before experimental treatment.

$H_{01(b)}$ There exists no significant difference in the mean achievement scores in English reading comprehension of the two groups of boys (BE and BC) taught English through Cooperative Integrated Reading Composition (CIRC) and conventional method before experimental treatment.

$H_{01(c)}$ There exists no significant difference in the mean achievement scores in English reading comprehension of the two groups of girls (GE and GC) taught English through Cooperative Integrated Reading Composition (CIRC) and conventional method before experimental treatment.

2. (After Experimental Treatment)

$H_{02(a)}$ There exists no significant effect of treatment on Achievement in English reading comprehension of students after experimental treatment.

$H_{02(b)}$ There exists no significant effect of gender on Achievement in English reading comprehension of students after experimental treatment.

$H_{02(c)}$ There exists no significant effect of treatment and gender on Achievement in English reading comprehension of students after experimental treatment.

$H_{02(d)}$ There exists no significant effect of treatment on mean gain achievement scores in English reading comprehension of students after experimental treatment.
H₀²(e) There exists no significant effect of gender on mean gain achievement scores in English reading comprehension of students after experimental treatment.

H₀²(f) There exists no significant effect of treatment and gender on mean gain achievement scores in English reading comprehension of students after experimental treatment.

B Hypotheses Related to Writing Composition

Based upon the objectives of the study, the following hypotheses were devised.

3. (Before Experimental Treatment)

H₀³(a) There exists no significant difference in the mean achievement scores in English writing composition of the two groups (E and C) of students taught English through Cooperative Integrated Reading Composition (CIRC) and conventional method before experimental treatment.

H₀³(b) There exists no significant difference in the mean achievement scores in English writing composition of the two groups of boys (BE and BC) taught English through Cooperative Integrated Reading Composition (CIRC) and conventional method before experimental treatment.

H₀³(c) There exists no significant difference in the mean achievement scores in English writing composition of the two groups of girls (GE and GC) taught English through Cooperative Integrated Reading Composition (CIRC) and conventional method before experimental treatment.

4. (After Experimental Treatment)

H₀⁴(a) There exists no significant effect of treatment on Achievement in English writing composition of students after experimental treatment.

H₀⁴(b) There exists no significant effect of gender on Achievement in English writing composition of students after experimental treatment.

H₀⁴(c) There exists no significant effect of treatment and gender on Achievement in English writing composition of students after experimental treatment.

H₀⁴(d) There exists no significant effect of treatment on mean gain achievement scores in English writing composition of students after experimental treatment.

H₀⁴(e) There exists no significant effect of gender on mean gain achievement scores in English writing composition of students after experimental treatment.
There exists no significant effect of treatment and gender on mean gain achievement scores in English writing composition of students after experimental treatment.

6.8 DELIMITATIONS OF THE STUDY

Keeping in view the constraints of the time and available resources, the study is delimited to the:

1. Students of class VII studying in private schools of urban area.
2. Schools affiliated to Haryana Board of School Education of Rohtak city.
3. Syllabus of English for semester-I.
4. To the experiment for eight weeks only.

6.9 DESIGN OF THE STUDY

In the present study, pre-test, post-test control group experimental design was employed with a random sampling. In the study, the dependent variables were achievement of students in reading comprehension and writing composition in English while independent variables were instructional treatment & gender. Instructional treatment was studied at two levels namely experimental group (E) which was taught English through co-operative learning strategy-Cooperative integrated reading composition (CIRC), and control group (C) which was taught through conventional method. The design comprised of three phases.

I. Pre phase

In this phase, students were administered to intelligence test and socio-economic status. After that all the students of two groups (E, and C) were administered achievement test in reading comprehension and writing composition in English developed by the investigator herself.

II. Treatment phase

In this phase, all the students of experimental group were taught English through co-operative learning strategy CIRC and students of control group were taught through conventional method for eight weeks.
### Table-6.1 Design of the Study

<table>
<thead>
<tr>
<th>Phases</th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test Phase</td>
<td>Measurement of</td>
<td>Measurement of</td>
</tr>
<tr>
<td></td>
<td>1. Intelligence</td>
<td>1. Intelligence</td>
</tr>
<tr>
<td></td>
<td>2. SES</td>
<td>2. SES</td>
</tr>
<tr>
<td></td>
<td>3. Achievement in Reading Comprehension &amp; Writing Composition in English</td>
<td>3. Achievement in Reading Comprehension &amp; Writing Composition in English</td>
</tr>
<tr>
<td>Treatment Phase</td>
<td>Teaching English through Cooperative Integrated Reading Composition (CIRC) for 8 weeks</td>
<td>Teaching English through Conventional Method for 8 weeks</td>
</tr>
<tr>
<td>Post-Test Phase</td>
<td>Measurement of Achievement in Reading Comprehension &amp; Writing Composition in English</td>
<td>Measurement of Achievement in Reading Comprehension &amp; Writing Composition in English</td>
</tr>
</tbody>
</table>

### III. Post Phase

In this phase, all the students of all the two groups were again administered through achievement test in reading comprehension and writing composition in English to know the effect of co-operative learning strategy CIRC on their achievement. A comparison was made to study the effect of instructional treatment on scholastic achievement in Writing composition and Reading comprehension in English of seventh grade students in relation.

### POPULATION

A population is any group of individuals that have one or more characteristics in common that are of interest to the investigator. It may be all the individuals of a particular type or a restricted part of that group (Best, 1977). The VII class students
studying in schools (affiliated to Haryana Board) located at Rohtak city formed the population of the present study.

**SAMPLE**

The measurement of the entire population is impracticable though not entirely impossible. Therefore a sample from the population concerned may be drawn for the purpose. The sample for the present study was selected through multistage random sampling. The list of 37 Wards of Rohtak city was obtained from Municipal Committee. Each Ward’s no. was written on the separate chit and these chits were folded and put together in a box. One chit was picked up and Ward no. written on this chit denoted the Ward to be included in the sample. In this way, Ward no.5 was selected in the first stage sampling. After this, the list of schools in Ward no. 5 was obtained from D.E.O. office. Again by using lottery method, four schools (Saini Kanya High School, Saini boys Sr. Sec. School, Shri Jyoti Prakash Sr. Sec. School, and Himalyan High School) were selected in the second stage sampling. Initially a sample of 160 students was taken through random sampling and after administration of Socio-Economic Status Scale and intelligence only 140 students of middle strata and moderate intelligence was taken for the study. All the 140 students were divided and formed experimental group (E) and control group (C).

Each school was having one section of seventh class. One Section {Sec-A (35)} of Saini Kanya High School, one Section {Sec-A (35)} of Saini Boys Sr. Sec. School, One Section {Sec-A (35)} of Shri Jyoti Prakash Sr. Sec. School, One Section {Sec-A (35)} of Himalyan High School were taken. Schools for experimental and control group are taken differently because it is ethically not good to teach the students of the same school with different teaching strategy. The breakup details of sample of the study have been given in Table-.2.
Table-6.2: Breakup Details of Sample selected for the Study

<table>
<thead>
<tr>
<th>Group</th>
<th>Name of School</th>
<th>Class</th>
<th>No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>Saini Kanya High School</td>
<td>VII</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Saini Boys Sr. Sec. School</td>
<td></td>
<td>35 (Boys)</td>
</tr>
<tr>
<td>Control</td>
<td>Shri Jyoti Prakash Sr. Sec.</td>
<td>VII</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Himalayan High School</td>
<td></td>
<td>35 (Boys)</td>
</tr>
<tr>
<td></td>
<td><strong>Total Sample</strong></td>
<td></td>
<td><strong>140</strong></td>
</tr>
</tbody>
</table>

Tools Used

Following tools were used for the purpose of collecting data related to different variables covered in the study:

A Standardized Tests

a) General Intelligence test (GIT) by S. M. Mohsin (1990) to measure the intelligence of students.

b) Socio-Economic Status Scale Questionnaire (SESSQ) by Kalia & Sahu (2010) to measure the socio-economic level of students.

B Self Developed Tools

a) Achievement Test in Reading comprehension Achievement Test to measure the achievement of students in Reading skill.

b) Achievement Test in Writing composition Achievement Test to measure the achievement of students in writing skill.

Instructional Material Developed For CIRC

Following instructional material have been developed for CIRC

a) Lesson Plans for Co-operative Learning strategy CIRC.

b) Worksheets for CIRC.

c) Formative Tests for CIRC.
6.10 EXPERIMENTAL PROCEDURE

The subjects in this study were 140 seventh class students from the three high schools in Rohtak city situated in same locality. For the Experimental Group, which was subjected to CIRC a total of 70 learners were chosen ie One Section {Sec-A (35)} of Saini Kanya High School, one Section {Sec-A (35)} of Saini boys Sr. Sec. School, and The control group which was exposed to conventional method of instruction was consisted of 70 learners chosen from One Section {Sec-A (35)} of Shri Jyoti prakash Sr. Sec. school, One Section {Sec-A (35)} of Himalyan high School, Rohtak and hence no novel treatment was given. The investigator studied literature and books on co-operative learning strategy deeply and consulted various Experts for the execution of co-operative learning strategy. Hence all the lessons for all groups were taught by the investigator herself.

The experiment was conducted in three phases:

Phase I: Pre-Test
Phase II: Treatment
Phase III: Post-Test

Table 6.3: Description of Experimental Procedure

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Phase</th>
<th>Duration</th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pre-Test</td>
<td>7 Days</td>
<td>1. Achievement Test in Reading Comprehension and Writing Composition to assess Reading Writing Skill in English</td>
<td>1. Achievement Test in Reading Comprehension and Writing Composition to assess Reading Writing Skill in English</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Socio-Economic Status</td>
<td>2. Socio-Economic Status</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Intelligence Test</td>
<td>3. Intelligence Test</td>
</tr>
<tr>
<td>2.</td>
<td>Treatment</td>
<td>8 Weeks</td>
<td>Teaching English by CIRC for Eight Weeks</td>
<td>Teaching English by Conventional Method for Eight weeks</td>
</tr>
<tr>
<td>3.</td>
<td>Post-Test</td>
<td>4 Days</td>
<td>Reading Comprehension and Writing Composition Achievement Test</td>
<td>Reading Comprehension and Writing Composition Achievement Test</td>
</tr>
</tbody>
</table>

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Phase I: Pre-Test

Before the start of the experiment, subjects were contacted and rapport was established with them. They were oriented to the tests to be used with them and also with the methodology of the treatment to be followed viz. co-operative learning strategies and conventional method. In the very beginning, Intelligence Test was applied to all the students to form the groups on the basis of levels of intelligence. Secondly, Socio-Economic Status Scale was used to equate all the groups in terms of socio-economic status. Thirdly, achievement test in Reading comprehension and writing composition in English was administered to the students of all the two groups. The investigator herself with co-operation of class teachers administered all the tests. The instructions pertaining to the tests were explained verbally in clear terms to the students before administering the test. The administration of these tests was carried out as per norms and instructions contained in their manuals. Separate response sheets were provided. The answer sheets were scored with the help of scoring key. The scores in achievement test indicated the previous knowledge possessed by the students.

Phase II: Treatment

The instructional treatment was manipulated in the form of teacher directed instruction followed by co-operative learning settings to the Experimental Group. The instructional treatment was given for about eight weeks, which included seven lessons, seven worksheets and seven formative tests to the experimental group, whereas the control group was taught through conventional method only. Same content was taught to both groups. Students of Experimental Group was given an orientation lecture about co-operative learning in the beginning of experiment. Students were motivated to learn through the novel method of instruction and were encouraged to participate in the experiment by explaining the objectives.

CIRC technique is developed to support traditionally used “skill-based reading groups” approach. Firstly, reading groups were established in the classroom. One Section {Sec-A (35)} students of Saini Kanya High School, one Section {Sec-A
(35) students of Saini Boys Sr. Sec. School were paired off within the Experimental group were assigned to four to five member heterogeneous teams and taught by CIRC. Next, The teacher taught the first part of topic with whole class teaching (Opening, Development and guided practice). Teachers are ready to train students to improve student skills. Teacher explains the content to students, this study used worksheets that contain material. Teacher gives exercises. Teachers supervise the work of the group. When the teacher works with a reading group, couples try to teach each other meaningful reading and writing skills by using reciprocal learning technique. One member of the group read about, and they help each other in performing basic skill-building activities (such as oral reading, contextual guessing, asking questions, summarizing, writing a composition based on the story, revising-correcting composition). Chairman of the group should be able to establish that each member has to understand, the content and also reported success or barriers. Teachers act as resource persons or facilitators. The teacher asks the class representatives to present findings. Teacher gives assignment / homework individually. Teacher gives quiz. In general, team books are published at the end of this process. Teams are rewarded for all reading and writing assignments on the basis of the average performance of group members. Thus, equal change for achievement, group support for achievement, and the performance, all basic components of cooperative learning ensure realization of personal responsibility.

During the application in control group, a conventional method based on whole class teaching was used. In this setting, regular instructional method - unit presentation, individualized practice activities, and tests were used.

For control group, same books and curriculum objectives were retained as in experimental groups. Direct method, Linguistic communicative approach & sometime Bilingual method frequently applied in English lessons throughout the world, is used. These methods include explaining the difficult word meanings & reading the passage loudly as well as silently. The students of both Sections under Control Group were given the opportunity to ask questions to clarify the content that they could not understand and teacher provided an appropriate solution. Later, questions were written on the board, and all the students were asked to answer the
questions. Teacher helped the students and make corrections. At the end of lesson, the students were given homework, which was discussed the next day in class. The control group did not participate in any team studies since such an activity was not an essential part of the traditional method. The students of the control group took topic tests once in a week and were evaluated individually. Although all the groups were asked the same types of questions, the way of presentation of such questions was different in terms of methods and application. Similarly, in experimental group the same topic tests (formative tests) were administered to the students, yet for the control group, the same questions were unable to be used, but similar questions were used. As a result, a total of seven English lessons were conducted in eight weeks to the control group.

**Phase III: Post-Test**

After the instructional treatment, achievement test was administered to experimental group, and control group to know the effect of treatment on the achievement of students.

### 6.11 STATISTICAL TECHNIQUES USED

To achieve objectives of the study, the data collected was statistically analyzed by using the following techniques:

1. Descriptive statistics such as mean and S.D. were worked out on the scores of achievement.

2. Two way Analysis of variance (ANOVA) with 2x2 factorial design was employed to study the main effects and interactional effects of independent variables (treatments and gender) on dependent variable (English Writing Composition Achievement) supplemented by t-test. To test the assumption of homogeneity of variance for ANOVA, Hartley's test was employed.

### 6.12 FINDINGS OF THE STUDY

**A Findings Related To Reading Comprehension**

1. **Comparison of Mean Achievement Scores of Experimental and Control Group in English Reading Comprehension (Before Experimental Treatment)**
• It has been found that there was no difference in the achievement level of two groups namely experimental and control before conducting the experiment. It leads to the conclusion that there is no difference in the achievement scores of two groups (E & C) i.e. initially experimental group and control group were similar in their performance.

• No significant difference was found in achievement scores of boys of experimental group & control group of seventh graders to be taught through cooperative integrated reading composition (CIRC) strategy and conventional method before experimental treatment. It leads to the inference that boys of two groups (E & C) were similar in their performance on achievement test before giving the experimental treatment.

• No significant difference was found in the achievement scores of experimental group girls and control group girls to be taught through cooperative integrated reading composition (CIRC) strategy and conventional method before experimental treatment. It leads to the conclusion that there is no difference in the achievement scores of girls of two groups (E & C) i.e. initially experimental and control group girls were similar in their performance.

2 EFFECT OF INSTRUCTIONAL TREATMENT AND GENDER ON ACHIEVEMENT IN ENGLISH READING COMPREHENSION (After Experimental Treatment)

• There was found a significant effect of treatment on mean achievement scores in English reading comprehension of seventh class students leading to the inference that experimental treatment yielded difference in achievement scores in English reading comprehension. After comparing the mean achievement scores of experimental and control group with t-test, a significant difference was found in both the groups. It discloses the fact that students of experimental group have higher achievement in English reading comprehension than the students of control group. It can therefore be inferred that students who are taught English through cooperative integrated reading composition (CIRC)
strategy show significant improvement in their achievement than the students who received instructions through conventional method of teaching.

- Gender was found to have a significant effect on achievement scores in English reading comprehension of seventh grade students. There was significant difference in achievement between boys and girls. In context of mean scores it was found that the boys achieved better than their female counterparts.

- There was a significant interaction effect of treatment and Gender on achievement in English reading comprehension of seventh grade students leading to the inference that two variables interact with each other. Further investigation with the help of t-test revealed that
  - There was found to be a significant difference in the performance of Boys and Girls when exposed to teaching through cooperative integrated reading composition (CIRC) strategy. In context of mean scores it was found that mean scores of boys of experimental group was higher than the mean scores of girls of experimental group which revealed that Boys achieved more than Girls.
  - Whereas no significant difference was found when we compare post-test mean achievement scores in English reading comprehension of Boys and Girls of control group, leading to conclusion that Boys and Girls learning through conventional method of teaching were equal in their performance.
  - The post-test achievement scores in English reading comprehension of boys of experimental group and control group of seventh graders differ significantly in favor of experimental group boys. This implies that boys who were taught English through cooperative integrated reading composition (CIRC) strategy illustrated significant improvement in their achievement than the boys who received instructions through conventional method of teaching. A close inspection of mean scores indicated that boys of experimental group performed better than boys of control group.
The post test achievement scores of girls of experimental group was found significantly higher than the post test achievement scores of control group. This leads to inference that the girls who were taught through cooperative integrated reading composition (CIRC) strategy showed significant improvement in their achievement in English reading comprehension than the girls who received instructions through conventional method. However, in the context of mean scores, girls of experimental group had higher achievement in English reading comprehension with the girls of control group.

3. EFFECT OF INSTRUCTIONAL TREATMENT AND GENDER ON ACHIEVEMENT IN ENGLISH READING COMPREHENSION (in terms of Mean Gain Achievement Scores)

- Instructional treatment had a significant effect on mean gain achievement scores in English reading comprehension of seventh grade students leading to the conclusion that experimental treatment yielded difference in mean gains on achievement scores in English reading comprehension. The mean gain achievement scores in English reading comprehension of experimental group and control group of seventh graders differ significantly in favor of experimental group. It suggests that students who are taught English through cooperative integrated reading composition (CIRC) strategy show significant improvement in their achievement than the students who received instructions through traditional method of teaching.

- Gender was found to have a significant effect on mean gain achievement scores in English reading comprehension of students. After comparing the mean gain achievement scores of boys and girls with the help of t-test, significant difference was found between boys and girls. This leads to conclusion that Boys group performed better than Girls group after being exposed to experimental treatment.

- Treatment and Gender had a significant interaction effect on mean gain achievement scores in English reading comprehension of seventh class students leading to the inference that two variables interact with each other.
After comparing the mean gain achievement scores for the experimental and control group with the help of t-test following conclusion were drawn

- There was found to be a significant difference in the performance of Boys and Girls when exposed to teaching through cooperative integrated reading composition (CIRC) strategy. An examination of means leads to conclusion that gain achievement scores of boys is more than girls. It can be said that boys were more benefited by instructional strategy (CIRC).

- Whereas no significant difference was found when we compare mean gain achievement scores of boys and girls of control group, this leads to conclusion that boys and girls learning through conventional method of teaching were equal in this context.

- However when we compare the mean scores of the boys of experimental group and control group, it was found that boys of both the groups differ significantly in mean gain reading comprehension achievement in favor of experimental group boys. It can be revealed that cooperative integrated reading composition (CIRC) strategy is more effective than conventional teaching strategy in raising the achievement of boys in English reading comprehension.

- A significant difference was found in mean gain achievement scores in English reading comprehension between the girls of experimental group and control group. When girls of experimental and control group were compared on mean gain achievement score it was found that mean gain achievement score of experimental group girls is higher than that of control group girls. This entails that the girls exposed to cooperative integrated reading composition (CIRC) strategy benefited more in their achievement in comparison to the girls exposed to conventional method of teaching.

B Findings Related To Writing Composition

4. COMPARISON OF MEAN ACHIEVEMENT SCORES OF EXPERIMENTAL AND CONTROL GROUP IN ENGLISH WRITING COMPOSITION (Before Experimental Treatment)
• It has been found that there was no difference in the achievement level of two groups namely experimental and control before conducting the experiment. It leads to the conclusion that there is no difference in the achievement scores of two groups (E & C) i.e., initially experimental group and control group were similar in their performance.

• No significant difference was found in achievement scores of boys of experimental group & control group of seventh graders to be taught through cooperative integrated reading composition (CIRC) strategy and conventional method before experimental treatment. It leads to the inference that boys of two groups (E & C) were similar in their performance on achievement test before giving the experimental treatment.

• No significant difference was found in the achievement scores of experimental group girls and control group girls to be taught through cooperative integrated reading composition (CIRC) strategy and conventional method before experimental treatment. It leads to the conclusion that there is no difference in the achievement scores of girls of two groups (E & C) i.e., initially experimental and control group girls were similar in their performance.

5 EFFECT OF INSTRUCTIONAL TREATMENT AND GENDER ON ACHIEVEMENT IN ENGLISH WRITING COMPOSITION (After Experimental Treatment)

• There was found a significant effect of treatment on mean achievement scores in English writing composition of seventh class students leading to the inference that experimental treatment yielded difference in achievement scores in English writing composition. After comparing the mean achievement scores of experimental and control group with t-test, a significant difference was found in both the groups. It discloses the fact that students of experimental group have higher achievement in English writing composition than the students of control group. It can therefore be inferred that students who are taught English through cooperative integrated reading composition (CIRC) strategy show significant improvement in their achievement than the students who received instructions through conventional method of teaching.
Gender was found to have a significant effect on achievement scores in English writing composition of seventh grade students. There was significant difference in achievement between boys and girls. In context of mean scores it was found that the girls achieved better than boys.

There was a significant interaction effect of treatment and Gender on achievement in English writing composition of seventh grade students leading to the inference that two variables interact with each other. Further investigation with the help of t-test revealed that

- There was found to be a significant difference in the performance of Boys and Girls when exposed to teaching through cooperative integrated reading composition (CIRC) strategy. In context of mean scores it was found that mean scores of girls of experimental group was higher than the mean scores of boys of experimental group which revealed that girls achieved more than boys.

- Whereas no significant difference was found when we compare post-test mean achievement scores in English writing composition of Boys and Girls of control group, leading to conclusion that Boys and Girls learning through conventional method of teaching were equal in their performance.

- The post-test achievement scores in English writing composition of boys of experimental group and control group of seventh graders differ significantly in favor of experimental group boys. This implies that boys who were taught English through cooperative integrated reading composition (CIRC) strategy illustrated significant improvement in their achievement than the boys who received instructions through conventional method of teaching. A close inspection of mean scores indicated that boys of experimental group performed better than boys of control group.

- The post test achievement scores of girls of experimental group was found significantly higher than the post test achievement scores of control group. This leads to inference that the girls who were taught through cooperative integrated reading composition (CIRC) strategy showed significant
improvement in their achievement in English writing composition than the girls who received instructions through conventional method. However, in the context of mean scores, girls of experimental group had higher achievement in English writing composition with the girls of control group.

6. EFFECT OF INSTRUCTIONAL TREATMENT AND GENDER ON ACHIEVEMENT IN ENGLISH WRITING COMPOSITION (in terms of Mean Gain Achievement Scores)

• Instructional treatment had a significant effect on mean gain achievement scores in English writing composition of seventh grade students leading to the conclusion that experimental treatment yielded difference in mean gains on achievement scores in English writing composition. The mean gain achievement scores in English writing composition of experimental group and control group of seventh graders differ significantly in favor of experimental group. It suggests that students who are taught English through cooperative integrated reading composition (CIRC) strategy show significant improvement in their achievement than the students who received instructions through traditional method of teaching.

• Gender was found to have a significant effect on mean gain achievement scores in English writing composition of students. After comparing the mean gain achievement scores of boys and girls with the help of t-test, significant difference was found between boys and girls. This leads to conclusion that girls group performed better than boys group after being exposed to experimental treatment.

• Treatment and Gender had a significant interaction effect on mean gain achievement scores in English writing composition of seventh class students leading to the inference that two variables interact with each other. After comparing the mean gain achievement scores for the experimental and control group with the help of t-test following conclusion were drawn

➢ There was found to be a significant difference in the performance of Boys and Girls when exposed to teaching through cooperative integrated reading composition (CIRC) strategy. An examination of means leads to
conclusion that gain achievement scores of girls is more than boys. It can be said that girls were more benefited by instructional strategy (CIRC).

▸ Whereas no significant difference was found when we compare mean gain achievement scores of boys and girls of control group, this leads to conclusion that boys and girls learning through conventional method of teaching were equal in this context.

▸ However when we compare the mean scores of the boys of experimental group and control group, it was found that boys of both the groups differ significantly in mean gain writing composition achievement in favor of experimental group boys. It can be revealed that cooperative integrated reading composition (CIRC) strategy is more effective than conventional teaching strategy in raising the achievement of boys in English writing composition.

▸ A significant difference was found in mean gain achievement scores in English writing composition between the girls of experimental group and control group. When girls of experimental and control group were compared on mean gain achievement score it was found that mean gain achievement score of experimental group girls is higher than that of control group girls. This entails that the girls exposed to cooperative integrated reading composition (CIRC) strategy benefited more in their achievement in comparison to the girls exposed to conventional method of teaching

6.13 CONCLUSION

Writing a conclusion is the final part of the research drawing everything together. The present study concluded that there was significant impact of each of the independent variable i.e. Cooperative learning strategy CIRC, Conventional method of teaching and Gender on the dependent variable achievement in Reading Comprehension and Writing Composition in English of seventh grade students. The significant difference in Reading Comprehension achievement in English was observed among the students. It was found that students who were taught English with CIRC had more achievement in Reading Comprehension and Writing
Composition in English than those who were taught with Conventional method of teaching.

The study further revealed a significant difference in Reading Comprehension and Writing Composition achievement of boys and girls taught through CIRC. In Reading Comprehension boys achieved more than girls and in Writing Composition girls achieved more than boys. While there was no significant difference in Reading Comprehension and Writing Composition achievement of boys and girls taught through Conventional method of teaching. That means both girls and boys performed equal. It was also noticed that there was significant interaction effect of Cooperative learning strategy CIRC, Conventional method of teaching and Gender on the dependent variable achievement in Reading Comprehension and Writing Composition in English of seventh grade students.

Based on the explanation above it can be seen that the model of Cooperative integrated reading and composition (CIRC), one of the learning techniques based on cooperation, is designed to develop reading, and writing language skills in the upper grades of primary education. The advantages of this technique is the optimization of student participation.

Firstly, reading groups are established in the classroom. Next, students are paired off within the groups. When the teacher works with a reading group, couples try to teach each other meaningful reading and writing skills by using reciprocal learning technique. They help each other in performing basic skill-building activities (such as oral reading, contextual guessing, asking questions, summarizing, writing a composition based on the story, revising-correcting composition). In general, team books are published at the end of this process. Teams are rewarded for all reading and writing assignments on the basis of the average performance of group members. Thus, equal change for achievement, group support for achievement, and the performance, all basic components of cooperative learning ensure realization of personal responsibility.

Precisely, it can be said that cooperative integrated reading composition (CIRC) provides greater interaction among the students to learn. It is better than the
traditional method of learning. The change from passive reception into active cooperation and exploration arouses their interest and involvement in classroom activities to improve their academic achievement.

6.14 EDUCATIONAL IMPLICATIONS

The findings of this study could help English language teachers for developing reading comprehension knowledge, Writing Composition, small group cooperative skills, and abilities of students in accordance with the academic requirements. Therefore, this study supports that cooperative learning is better to teach reading comprehension and Writing Composition.

This study also reveals that cooperative learning looks to be a method of instruction that is suitable to the needs and levels of general seventh school students in our context and it is the one that students, who were in the experimental group, respond to positively. The experimental group improved more through cooperative learning than non cooperative learning in the control group. Discussions among group members during the cooperative group learning gave an additional feature to the teaching learning process. From the cognitive elaboration perspective, it was stated that the effects of cooperative learning on achievement would be largely due to the use of cooperative tasks where students have the opportunity to discuss, argue, present and hear one another’s view points. Cooperative learning is also a pedagogical approach that promotes student student interaction via working in small groups to maximize their learning and reach their goal. It is suitable for the Indian education system due to the National Educational Policy (1994) which emphasizes students’ cooperation in helping each other to acquire knowledge. This type of approach decreases competitiveness and individualism and increases opportunities to actively construct or transform the knowledge among students.

The findings of present study reveal some important educational implications for teachers, students, teacher educators, curriculum planners and school authorities. Changing from traditional competitive classroom to a co-operative one does not slow down students’ achievement, but significantly improves achievement as it is evident from the findings of the study. Dedicated teachers are always looking for better ideas
to meet the many challenges they face in a school, especially as diversity increases in student population. Co-operative learning strategies provide teachers with effective ways to respond to diverse students by promoting academic achievement and cross-cultured understanding. Co-operative learning is a powerful educational approach for helping all students to attain content standards and develop the interpersonal skills needed for succeeding in multicultural world. In the present study, co-operative learning strategy CIRC was found more effective than conventional method of teaching with respect to student's achievement in Reading Comprehension and Writing Composition in English.

The present study revealed that students taught English through CIRC achieved higher in reading and writing skills. Study also revealed that co-operative learning strategy CIRC significantly improved the achievement of students than conventional method of teaching. Co-operative learning strategies prove practical and more acceptable to students. Sometimes students are not able to understand what teacher is explaining to them due to some reasons and they don't ask again due to hesitation. But in groups, they can get explanation of the same topic in simple words and attains greater on achievement.

Besides it, the teacher involved should be experienced teacher with an interest and background in co-operative learning that received continual support and feedback from trainees and other teaching using the co-operative learning structures. Sapon-Shevin and Schnielen wind (1989/1990) found that teacher is essential to the success of co-operative learning. If teacher is inexperienced, not committed to using co-operative learning structures, then result of co-operative learning may be different. So if we want successful results of co-operative learning in Indian classrooms, teacher must be trained in using different co-operative learning structures. So, teachers should be given proper orientation to co-operative learning strategies or in-service training from time to time. School authorities or teacher educators should organize refresher courses, seminars or workshops so that teachers can be trained in different methods of teaching-learning to generate the desired level of learning among the students.
Group rewards are used in the present study, which is essential for the effectiveness of co-operative learning. Group rewards are based on the individual learning of all group members. This point takes strength from motivational theory of co-operative learning, which is great implication in field of teaching. Students should be given some incentive or reinforcement in terms of praise, encouragement and prizes to bring rapid progress in achievement.

The present study has an important implication for teacher education. Pre-service and in-service teachers should understand how to structure and monitor meaningful experience for students. Important skills such as critical thinking, creative problem solving and synthesis of knowledge can easily be accomplished through co-operative group activities. Co-operative learning assigns a new role to the teacher. It is the teacher who converts the passive listeners in the class into active members and achievers by implementing co-operative learning in perfect way, thus becoming a facilitator in learning process to actively encourage the student to help each other and learn from each other, participate in discussions, facilitate each other's learning and engage in problems solving in a free democratic way. Further, the study has an important implication for curriculum planners. While constructing the curriculum, all learning experiences including co-operative learning behaviors should be added so that students can be more benefitted and enjoy the learning.

6.15 SUGGESTIONS FOR FURTHER RESEARCH

The present study unbolts certain boulevards for further research which are briefly listed below:

1. Such a study can be conducted using larger sample groups and schools with different socio-economic levels. It would be of interest to understand the internal dynamics of CIRC, e.g. evidence on peer instructions might be obtained from observations.

2. This study examined only the achievement in reading comprehension and in writing ability of students in English. Further studies can be conducted to investigate the effectiveness of cooperative learning for other variables such
as attitude towards Listening and speaking skill, other subjects, self-esteem, peer relation, social skills and academic motivation for different subjects.

3. The study may be extended to the other classes of the elementary, secondary, higher secondary stages and the students of English medium schools and different areas of the country.

4. Further research should also focus on comparison between different strategies of co-operative learning as well as comparison with non co-operative learning approaches in order to determine if other co-operative learning strategies are equally effective in producing desired students outcomes.

5. Studies on co-operative learning strategies should be conducted for the entire year or for long period to determine if student achievement is increased with additional experience in using co-operative learning.

6. There is a broader need to study co-operative learning in the contexts of attempts to the replace homogeneous with heterogeneous grouping, especially in middle and high schools.

7. The strengths of co-operative learning approach and its feasibility should be found in Indian higher education classroom and there is a need for development and evaluations of co-operative strategies for young children especially those in pre-kindergarten and first grade.

8. Research is needed to study the effect of co-operative learning on exceptional children or special children.

Although co-operative learning has been studied in an extraordinary number of field experiments of high methodological quality, there is still much more to be done. Co-operative learning has the potential to become a primary format used by the teachers to achieve both traditional and innovative goals. Research must continue to provide the practical, theoretical, and intellectual underpinnings to enable educators to achieve this potential.

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