CHAPTER – 1 INTRODUCTION

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Chapter – 1

Introduction

1.1 Introduction

Education is a very powerful instrument for the social, political and economic development of a country. The term ‘Education’ is derived from Latin Language in which “education” means “to educate” where ‘e’ means from ‘inner’ side and ‘duco’ means to ‘develop’. Therefore, education means to develop pupil’s innate power from inside to outside. Education is a wide concept which has a strong effect upon pupil’s success. Education is never ending process of inner growth and development and its period stretches from cradle to the grave. It is very important for the progress of individuals and society. Education is the only means by which a society can adjust with its needs. Therefore, a society can never exist without education. Through education the members of a society learn the skills to enrich, transmit and transform the cultural heritage as well as existing social and scientific knowledge for the continuous advancement of a society. Human endeavours to explore the universe and foster social, cultural and economic needs have resulted in a widespread educational system on profound basis of knowledge, learning and expertise. Today, a nation with a superior educational system is superior to others and indeed dominant in many respects.

Cooperative learning is an instructional technique and teaching philosophy that encourages students to work together to maximize learning (Cinelli, 1994). In its simplest form, cooperative learning is a type of group work in which two or more students interact, with the common goal of mastering specific academic material.

Cooperative learning encourages students to work in groups and teams. The core aim of this group or team is to achieve a specific task. Groups are created at beginning of the year, for some specific year activity, or for any other
collaborative purpose. In this new approach of learning, students learn much more than what they can learn in the typical mode of learning.

According to Johnson and Johnson (1989), there are five elements of cooperative learning approach. Though there are more than five, but the most basic elements or pillars of cooperative learning approach are: individual accountability, positive interdependence, face-to-face promotive interaction, group processing, and interpersonal and small group skills. Positive interdependence refers to the 'feel' of each other. Students feel that they cannot work without the absence or one or more group members. The instructor can set the mutual goals in order to make the group move in a specific direction. Individual accountability refers to specific group assessment that results in the skills and outcomes of each student and a whole group. Similarly, face-to-face promotive interaction encourages the students of a group by sharing and helping each other on specific topics. There can be one or more students of a group who don't have a good idea about some specific topic. But there can be a third student who is master of that topic. Interpersonal and small group skills refer to the social skills that each and every student of the group should have. It is necessary in order to have true and long term success of the group. Group processing refers to the assessment and remarking of the capabilities and actions of each group. For example, instructor can take three or four students from a group and can make an outline of what had made the group successful. Furthermore, the instructor can tell what points and factors can make the group even more successful in the future.

In addition, Kagan (1985) proposed his model about cooperative learning approach in 1985 in his book 'Cooperative Learning Structures'. In his model, he mainly advocated two basic principles. He first stated that the world is pretty much competitive while in some fields it isn't that much. However, one has to be fully equipped with knowledge in the fields he or she is going to face. Coming to the second principle, he wanted to have a learning approach which was a mixture
between competitive and individualistic, with cooperative classroom organization so that it could help in preparing the students for complete sort of social situations. Slavin (1995) suggests that cooperative learning is not only a great way of learning but it is also a very vast field of research and analysis consequent to research and analysis, the design section exists which suggests the designing of course outline and groups’ tasks. He also suggests that cooperative learning is doubtlessly a great tool for handicapped and disabled students. Cooperative learning approach encourages these students and moulds them to work in a professional environment. Cooperative learning approach of disabled and normal students is another great way of encouraging disabled students. According to Slavin (1995), when disabled and handicapped students work in mainstream and heterogeneous environments, they learn in a more productive and skillful manner.

Jigsaw is a cooperative learning structure, applicable to team assignments that call for expertise in several distinct areas. For example, in a laboratory exercise, areas of expertise might include experimental design, equipment calibration and operation, data analysis and interpretation of results in light of theory, and in a design project the areas might be conceptual design, process instrumentation and control, safety and environmental impact evaluation, and cost and profitability analysis.

Suppose for such areas are identified for a project. The students are formed into teams of four, and either the instructor or the team members designate which member will be responsible for each area. Then all the experts in each area are given specialized training, which may involve getting handouts or presentations by the course instructor, a faculty colleague, or a graduate student knowledgeable in the area in question. The students then return to their home teams and complete the assignment. The teams count on each member to provide his or her expertise, and if an expert does a poor job, the quality of the final project is compromised and everyone’s grade suffers. Moreover, if the students are tested on all of the
areas of expertise, the overall learning from the assignment improves dramatically. The tests require all students to understand the entire project, and not just the part that they were the experts in (individual accountability), and the experts have the responsibility of transmitting their expertise to their teammates (positive interdependence).

In Jigsaw (Aronson et al, 1978; Aronson and Shelley, 1997), team of six students work on academic material that has been divided into sections by the teacher. Each team member is responsible for a particular section. For example, if the material assigned were a historical event, one team member might be assigned a section on social context, one might be responsible for timeline, another might be responsible for long term effects, and the other teammate might be assigned a section on key participants. Each student reads his or her assigned section, after which the class reconfigures into “expert groups”. Expert groups consist of the students responsible for a particular section in their respective teams. After expert groups’ discussion on their sections, students return to their original teams, to teach that section to their teammates. This strategy encourages teammates to support each other’s work. It is only by listening carefully to each other that team members can learn about the other sections, and understand how their piece fits into a larger puzzle.

1.2 Rationale of the Study

Research on students’ thought processes is based on the belief that teaching is mediated by the students’ thinking skills and that teachers influence students’ achievement, not directly, but by causing students to think and behave in certain ways (Wittrock, 1986). It is evident that everyone has one’s own individual learning style. Our interests and genetic make-up determine what we can learn, how well we may learn and how well we can apply what has been learnt. Consequently, all approaches of instruction do not align with the learning capabilities of each individual learner. Either we must devote time to each learner
individually or rely on other means to assist each learner to progress which may not be possible as it requires more human resources than are available to schools. There is a need of a team of individuals to pull together to get tasks accomplished (Flowers and Ritz, 1994).

Cooperative learning is one of the teaching-learning strategies which is not expensive, makes learning easier and more enjoyable for the students. It is an easy technique to implement in the classroom, particularly in a block or a scheduled time table. The rationale for using cooperative learning techniques is that the cooperative learning principles are important not only for helping people to work better together but also for recognition of every one’s gifts and strengths.

Experimental studies (enhanced academic achievement, improved self-concept, greater motivation and better interpersonal relations) question continues to surface about students’ performance in small group settings and that not all students receive the same benefits from participation in heterogeneous cooperative groups. Throughout the world, Economics is taught as one of the school subjects, but a majority of the students feel that Economics is a difficult subject which leads to high failure rate because of: (a) lack of interest in Economics; and (b) ineffective teaching methods. Majority of the Economics teachers follow the traditional methods of instruction.

Co-operative learning is one strategy that can enable all learners in the classroom to learn or work together in smaller groups. This can contribute to intellectual, social and psychological development of learners unlike other methods of instruction. Cooperative learning also focuses on preventing and treating a wide variety of instructional and of society problems too, such as addressing diversity (racism, sexism, inclusion of handicapped, anti-social behavior, delinquency, drug abuse, bullying, violence and incivility), lack of pre-social values and egocentrism psychological pathology, low self-esteem, etc.
In cooperative learning settings, groups of students of mixed abilities help each other to learn by actively participating and discussing the issues involved through cooperation, self-effort and understanding.

The research indicates that high achievers gain from cooperative learning (relative to high achievers in the traditional classes) just as much as do low and average achievers (Slavin, 1995). Cooperative interdependence in classroom settings is the basis of many interventions designed to improve both academic achievement and self-concept of students in schools and as such it has been a primary focus in educational, social and psychological literature for quite a long while over the decades, which poses an obvious problem for an intensive study.

In present study effectiveness of cooperative learning approaches (Jigsaw and STAD) in relation to certain variables such as Intelligence Quotient (IQ), gender and achievement level is done.

1.3 Statement of Problem

The title of the present study was

A STUDY OF EFFECTIVENESS OF COOPERATIVE LEARNING APPROACHES ON ACHIEVEMENT IN LEARNING OF ECONOMICS.

1.4 Definition of Terms and Operational Definition

Study: According to C.V.Good dictionary of Education, study means,

- The act of process studying
- The pursuit of knowledge as by reading, observation
- An attentive scrutiny or careful investigation
- A subject to be investigated
- A work resulting from academic endeavor
- To examine closely
In the present study, ‘study’ means an examination of students’ achievement after learning Economics through different cooperative learning approaches.

**Effectiveness:** According to the C.V. Good dictionary of education, effectiveness means,

- Serving to effect the purpose
- Producing the intended or expected result
- Producing effect
- Reaction, Impression

In the present study ‘effectiveness’ means impact of various strategies of teaching namely cooperative learning approaches.

**Cooperative learning:** According to the International Encyclopedia of Education, cooperative learning means,

- Grouping students to achieve a shared goal
- Changes in behavior, resulting wholly or partly from share experiences of two or more persons.
- Cooperative learning is small group of students organized for study. The members of the groups work cooperatively together to find solution to their problems.

In the present study ‘cooperative learning’ means the student learning in the cooperative groups to find and give the solution of problems of the subject ‘Economics’ while working in group.

**Approach:** According to the C.V. Good dictionary of education, approach means,

- A method of teaching a child to read or to learn based upon some theory of how learning should be attained as the experiences.
In the present study the investigator used two different approaches for teaching ‘Economics’ via, cooperative learning approach and traditional learning approach.

In the present study ‘approach’ means cooperative learning approach – Jigsaw and Student Team Achievement Development (STAD).

**Economics:** According to Robins(1932) “Economics is the science that studies human behavior as relationship between ends and scarce means which have alternate uses”.

In the present study ‘Economics’ means one of the subject offered at higher secondary level of schooling.

**Learning:** According to the C.V. Good dictionary of education, learning means,

- The act, process, or experience of gaining knowledge or skill.
- Knowledge or skill gained through schooling or study.
- Behavioral modification especially through experience or conditioning.

In the present study ‘learning’ means gaining knowledge, skill and behavioural changes based on certain conditions and experiences using cooperative learning approaches in Economics.

**Higher Secondary level**

Higher Secondary level Means a school having the distinctive stage of +2 stage under (10+2+3) pattern of education recognized by the Higher Secondary Education Board, Gandhinagar, Gujarat.

1.5 **Objectives of the Study**

Task objectives and research objectives of present research were given below:
1.5.1 Task Objectives

1. To develop teaching learning material for the cooperative learning group.
2. To construct an achievements test in Economics.
3. To construct opinionnaire for collecting students' opinions regarding cooperative learning.
4. To get descriptive information of self experience regarding cooperative learning of the students.
5. To implement cooperative learning approach programme.

1.5.2 Research Objectives

1. To study the effect of cooperative approach-I (Jigsaw), approach-II (STAD) and traditional approach on learning in Economics.
2. To study the effect of certain variables (gender, intelligence level and achievement level) on achievement in Economics.
3. To study the effect of certain variables (gender, intelligence level and achievement level) on retention.

1.6 Variables of the Study

1.6.1 Independent Variables

(A) Teaching approach:

1. Cooperative learning approach-I (Jigsaw)
2. Cooperative learning approach-II (STAD)
3. Traditional learning approach
(B) Intelligence:
1. High
2. Medium
3. Low

(C) Gender:
1. Boys
2. Girls

(D) Achievement level:
1. High
2. Low

1.6.2 Dependent Variables
1. Score obtained by the students in achievement test
2. Retention score

1.6.3 Control Variables
1. Standard XI
2. Subject- Economics (Selected chapter only )
3. Medium- Gujarati

1.6.4 Intervening Variables
1. Novelty in experiment
2. Interest and enthusiasm towards subject
3. Understanding power
4. Grasping power

The investigator had worked with three groups

Group - 1 Control group (Traditional approach)

Group - 2 Experimental group-1 (Cooperative Learning Approach -Jigsaw)

Group - 3 Experimental group-2 (Cooperative Learning Approach -STAD)
1.7 Hypotheses of the Study

1. There will be no significant difference between post-test mean scores of Control group and Experimental group (Jigsaw) on achievement test.

2. There will be no significant difference between post-test mean scores of Control group and Experimental group (STAD) on achievement test.

3. There will be no significant difference between post-test mean scores of Experimental group (Jigsaw) and Experimental group (STAD) on achievement test.

4. There will be no significant difference between post-test mean scores of boys of Control group and Experimental group (Jigsaw) on achievement test.

5. There will be no significant difference between post-test mean scores of boys of Control group and Experimental group (STAD) on achievement test.

6. There will be no significant difference between post-test mean scores of boys of Experimental group (Jigsaw) and Experimental group (STAD) on achievement test.

7. There will be no significant difference between post-test mean scores of girls of Control group and Experimental group (Jigsaw) on achievement test.

8. There will be no significant difference between post-test mean scores of girls of Control group and Experimental group (STAD) on achievement test.

9. There will be no significant difference between post-test mean scores of girls of Experimental group (Jigsaw) and Experimental group (STAD) on achievement test.
10. There will be no significant difference between post-test mean scores of high IQ students of Control group and Experimental group (Jigsaw) on achievement test.

11. There will be no significant difference between post-test mean scores of high IQ students of Control group and Experimental group (STAD) on achievement test.

12. There will be no significant difference between post-test mean scores of high IQ students of Experimental group (Jigsaw) and Experimental group (STAD) on achievement test.

13. There will be no significant difference between post-test mean scores of medium IQ students of Control group and Experimental group (Jigsaw) on achievement test.

14. There will be no significant difference between post-test mean scores of medium IQ students of Control group and Experimental group (STAD) on achievement test.

15. There will be no significant difference between post-test mean scores of medium IQ students of Experimental group (Jigsaw) and Experimental group (STAD) on achievement test.

16. There will be no significant difference between post-test mean scores of low IQ students of Control group and Experimental group (Jigsaw) on achievement test.

17. There will be no significant difference between post-test mean scores of low IQ students of Control group and Experimental group (STAD) on achievement test.

18. There will be no significant difference between post-test mean scores of low IQ students of Experimental group (Jigsaw) and Experimental group (STAD) on achievement test.
19. There will be no significant difference between post-test mean scores of high achievement level students of Control group and Experimental group (Jigsaw) on achievement test.

20. There will be no significant difference between post-test mean scores of high achievement level students of Control group and Experimental group (STAD) on achievement test.

21. There will be no significant difference between post-test mean scores of high achievement level students of Experimental group (Jigsaw) and Experimental group (STAD) on achievement test.

22. There will be no significant difference between post-test mean scores of low achievement level students of Control group and Experimental group (Jigsaw) on achievement test.

23. There will be no significant difference between post-test mean scores of low achievement level students of Control group and Experimental group (STAD) on achievement test.

24. There will be no significant difference between post-test mean scores of low achievement level students of Experimental group (Jigsaw) and Experimental group (STAD) on achievement test.

25. There will be no significant difference between post-test mean scores of Control group and Experimental group (Jigsaw) on retention.

26. There will be no significant difference between post-test mean scores of Control group and Experimental group (STAD) on retention.

27. There will be no significant difference between post-test mean scores of Experimental group (Jigsaw) and Experimental group (STAD) on retention.

28. There will be no significant difference between post-test mean scores of boys of Control group and Experimental group (Jigsaw) on retention.

29. There will be no significant difference between post-test mean scores of boys of Control group and Experimental group (STAD) on retention.
30. There will be no significant difference between post-test mean scores of boys of Experimental group (Jigsaw) and Experimental group (STAD) on retention.

31. There will be no significant difference between post-test mean scores of girls of Control group and Experimental group (Jigsaw) on retention.

32. There will be no significant difference between post-test mean scores of girls of Control group and Experimental group (STAD) on retention.

33. There will be no significant difference between post-test mean scores of girls of Experimental group (Jigsaw) and Experimental group (STAD) on retention.

34. There will be no significant difference between post-test mean scores of high IQ students of Control group and Experimental group (Jigsaw) on retention.

35. There will be no significant difference between post-test mean scores of high IQ students of Control group and Experimental group (STAD) on retention.

36. There will be no significant difference between post-test mean scores of high IQ students of Experimental group (Jigsaw) and Experimental group (STAD) on retention.

37. There will be no significant difference between post-test mean scores of medium IQ students of Control group and Experimental group (Jigsaw) on retention.

38. There will be no significant difference between post-test mean scores of medium IQ students of Control group and Experimental group (STAD) on retention.

39. There will be no significant difference between post-test mean scores of medium IQ students of Experimental group (Jigsaw) and Experimental group (STAD) on retention.
40. There will be no significant difference between post-test mean scores of low IQ students of Control group and Experimental group (Jigsaw) on retention.

41. There will be no significant difference between post-test mean scores of low IQ students of Control group and Experimental group (STAD) on retention.

42. There will be no significant difference between post-test mean scores of low IQ students of Experimental group (Jigsaw) and Experimental group (STAD) on retention.

43. There will be no significant difference between post-test mean scores of high achievement level students of Control group and Experimental group (Jigsaw) on retention.

44. There will be no significant difference between post-test mean scores of high achievement level students of Control group and Experimental group (STAD) on retention.

45. There will be no significant difference between post-test mean scores of high achievement level students of Experimental group (Jigsaw) and Experimental group (STAD) on retention.

46. There will be no significant difference between post-test mean scores of low achievement level students of Control group and Experimental group (Jigsaw) on retention.

47. There will be no significant difference between post-test mean scores of low achievement level students of Control group and Experimental group (STAD) on retention.

48. There will be no significant difference between post-test mean scores of low achievement level students of Experimental group (Jigsaw) and Experimental group (STAD) on retention.
1.8 Delimitations of the study

The delimitations of the study are given below.

1. The present research was limited only for Anand district of the state – Gujarat.

2. The cooperative learning approach (Jigsaw) was used for limited units such as ‘National Income’ and ‘The Determination of Income and Employment’ from the subject Economics of standard XI.

3. The cooperative learning approach (STAD) was used for limited units such as ‘National Income’ and ‘The Determination of Income and Employment’ from the subject Economics of standard XI.

4. Teaching was done through cooperative learning approaches in respect to different problems on Economics in the subject of Economics.

5. The study was restricted to learning inside the classroom.

1.9 Scheme of Chapterization

The report of the present study is divided in six chapters. A brief introduction of the remaining chapters is given here with

The second chapter

The second chapter presents information about group learning approaches, its history, concept, its approaches, basic components, implementation of the group learning approaches in the classrooms, advantages of group learning etc.

The third chapter

The third chapter presents a short review for the past research studies in this salient features at Ph. D. levels and other of the present study is also given. A final conclusion or summary of the former studies is given.
The fourth chapter

The fourth chapter is the most important part of the study. It deals with the plan out of the design and implementation of the programme. The investigator provided information regarding experimental research design, statistical procedure, population, sample, research tools, preparation of group learning material, planning for group learning lessons, experiments, evaluation etc.

The fifth chapter

In the fifth chapter the investigators deals with analysis of the data by calculating with the selected statistical techniques and check the design hypothesis and interpret it.

The sixth chapter

In the sixth chapter, the investigator deals with the summary of the whole study. Main objective of the study, variables, hypotheses, research Approach, statistical procedures, etc. are included briefly in the summary. Moreover there are notes regarding the conclusions or summary on the basis of the analysis, the implications of the study in the forms of statements or paragraphs. The investigator also presents responses from the students during the research, the experiences got from the colleagues and the response of the students towards the experiment.

The investigator puts forward certain recommendations for the perspective studies in this field, guidelines for the investigators and the teachers of Economics willing to use group learning approach, the Principals and the educationalists preparing syllabus.

In the end, the investigator deals with preference list, bibliography, journals, articles etc. on the website in order to provide information regarding group learning approaches.