CHAPTER II

REVIEW OF RELATED LITERATURE
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A REVIEW OF THE RELATED LITERATURE

The purpose of the present study is to study the effectiveness of cooperative learning based training approach in respect of teacher attitude and students attitudes towards learning teaching and the training effect transfer to actual practice in classroom given to teachers through the cooperative learning based approach to experimental group and traditional training programme to control group.

It would be useful to survey some of the studies conducted on this area. It hoped that this would enable the investigator to be familiarized with various facts of the problem and the methodology adopted by the previous investigators in making such types of studies. The study was to proposed to survey different related studies conducted in this area till now as under.

Bashey, J.V. (1988) focused in his dissertation on Cooperative Learning, a form of classroom organization which can be used by regular education teachers to meet individual student needs. Cooperative learning encourages heteroegenous grouping of two to six
students to foster mutual interdependence and equal opportunity for the purpose of acquisition academic and/or social learning. The sample for this study was comprised of 161 (73.85%) regular education classroom teachers, sixteen (100%) principals and students from ten classrooms from the sixteen elementary schools in the Bellevue School District. Teachers responded to an eleven question survey which required them to indicate their knowledge and use of cooperative learning methods. Principals responded to nine interview questions of which seven were either identical or similar to those found on the teacher survey. Students from ten classrooms were asked to indicate their preference for working in groups or working alone and what they like and did not like about working together in groups.

The responses of Bellevue School District teachers and administrators indicated that most familiarity with types of Cooperative learning methods for which in district inservice had been provided all sixteen of the principals and 142 teachers want to continue inservice training the area of Cooperative Learning. Teachers and principals viewed cooperative learning as having more strengths than weaknesses. Generally, teachers have not discovered that special education and gifted students
also benefit from the use of cooperative learning methods. Cooperative learning methods are used by teachers in all subject areas. Students prefer working cooperatively in groups to working alone.

Stokes, D.B. (1990) conducted the study to determine if the use of Cooperative learning methods in the classroom enhanced students' achievement while simultaneously showing that students who participated in cooperative learning group have a more positive attitude toward school than students in a traditional class setting. It consisted 204 3rd grade students randomly elected in cooperative and traditional groups exposing equal time for instructions and focus different teacher to conduct either of the methods. It found out cooperative learning methods used as a routine and central feature of elementary institutions enhances students' achievement: (b) cooperative learning methods that incorporate group goals and individual accountability accelerates students' learning: (c) cooperative learning methods have positive effects on students' attitude toward school: and (d) cooperative learning methods are just as effective for low achievers as high achievers.
Mai (1986) at the University of California, Santa Barbara, researched the effects of three types of cooperative learning instructional methods and traditional comparison group on student achievement. All of these methods involved positive task interdependence, positive reward interdependence, individual accountability, heterogeneous small groups, and a focused schedule of instruction. Combination of Jigsaw - II and Cooperative - Cooperative methods were used. Subjects were 129 sixth grade students in four middle school classes who studied social studies for three consecutive nine-week quarters in three out of four treatment conditions. Students were randomly assigned to classes. Each of four teachers rotated through three of the four conditions, teaching the same material by different methods. Teachers received twenty-four hours of initial inservice training plus periodic on-site visits throughout the study. Results of the Curriculum - specific tests indicated significantly greater performance in two of the three cooperative learning methods compared to the control group.

Perreault, Raymond Joseph (1982) made an investigation on the study to experimentally compare cooperative learning to non-cooperative learning with regard to their effects on cognitive achievement at the
knowledge, comprehension and application levels of Bloom's taxonomy in seventh grade industrial art classes. In procedure the study included two junior high schools participated in the main study. Both teachers utilized the two experimental treatments. The randomly selected students from the available population were randomly assigned to the treatments at the class level. Reading comprehension and maths problem solving scores from the "Iowa Tests of Basic Skills" were the measures of cognitive achievement. The data from these measures identified two comparable classes from both schools. The author incorporated 2 x 2 randomized blocks design for each dependent variable based on Bloom's taxonomy of the cognitive domain. The factors were teacher A, teacher B and cooperative learning/non-cooperative learning treatments.

Both teachers were trained to utilized both learning techniques and the students used the thumbnail sketching activity as a practice exercise for their assigned treatments. The experiment lasted six weeks which consisted of drawing a metric 500 race car.

Regarding main findings of the study, Data from a two way analysis of variance for the main study indicated significant treatment effects in favour of
cooperative learning at the knowledge level ($F(1, 44) = 6.347, P < 0.05$) and at the comprehension level ($F(1, 44) = 5.483, P < 0.05$) no significant treatment effects were found at the application level for both the researcher's drawing evaluation ($F(1, 44) = .001, P < 0.05$), and the teachers' drawing evaluation ($F(1, 44) = 1.220, P < 0.05$) lower, significant teacher effects in favour of teacher A were indicated by the researcher's drawing evaluations ($F(1, 44) = 5.264, P < 0.05$), and significant teacher effects in favour of teacher B were yielded by the teacher's drawing evaluations ($F(1, 44) = 8.165, P < 0.05$). No interaction effects resulted in any of the analyses.

Data derived from the main study conducted that cooperative learning increased achievement for the knowledge and comprehension variables as compared to non-cooperative learning but no difference were found for the application variable.

Smith, M.J. (1984) investigated in the experimental study which was designed to investigate the effects of cooperative and individualistic goal structure on achievement, affective outcomes, and group process skills in 61 associate degree nursing students studying mental health nursing. The independent
variable was the goal structure, cooperative or individualistic, within which students worked.

The dependent variables was (1) achievement scores on quizzes and examinations in mental health nursing (2) attitudes toward modes of learning as measured by the social interdependence scale; (3) attitudes towards peers, teachers resource interdependence, and academic self-esteem as measured by the classroom life scale; (4) attitudes towards working in groups and toward caring for mental health patients as measured by investigator developed scales; and (5) amount of verbal interactions related to group task or maintenance as monitored by observers using the Verbal Interaction Measures.

Students were randomly assigned to one of four discussion groups that met for 50 minutes each week for eight weeks. Two discussions groups worked in stable cooperative small groups of 3 - 4; another discussion group worked in different small groups of 3 - 4 students each week under an individualistic goal structure. The fourth discussion group of 16 students worked individually under the direction of the teacher.
The study results revealed no significance difference between treatment groups in achievement, attitudes, or verbal interaction. An interesting finding showed the students who worked in small groups of 3 - 4, whether cooperatively or individualistically, talked five times as often as students in the teacher-led individualistic group. Although there were no significant differences in achievement measures (quizzes and exams), students in the individually structured large group came close to having a significantly higher course grade than did the experimental group (t = 12.48, 6df, p = .052). These students were older (mean age 26.06) and had the highest mean GPA (2.8210) compared to students in the other treatment groups.

Bloomer, A.C. (1986) conducted the study to investigate the effectiveness of a cost-effective training method, cooperative learning on acquiring basic computing skills, through the cattle 16 PF and the Mac Quarrrie subtest of practice pursuit to 84 subjects. A series of four, one day workshops were conducted and subjects were randomly assigned to one of the two treatment: 34 subjects were instructed on basic computing skills utilizing the individual learning method and the other 50 subjects were instructed using
the cooperative learning method. The subjects were randomly assigned to pairs, and were administered a 42 multiple choice post test at the end of the day. A student's t-test and multiple regression were used to analyze data.

It was concluded that cooperative learning is a viable solution to the problem of training the large population of adults who need to learn or update basic computing skills. Also, while personality traits did interact with both methods, perceptual motor skills interacted with only the cooperative learning method.

Stevens, R.J., Slavin, R.E. and Fornigh, A.M., (1991). conducted the experimental study to investigate the impact of direct instruction on reading comprehension strategies and the degree to which cooperative learning process enhance students learning of strategies. Students were assigned to instructional treatments on strategies for identifying the main idea of passages. Treatments involved cooperative learning with direct instruction, direct instruction alone, and traditional instruction control. Students to the two instructional treatments which incorporated direct instruction or main idea strategies performed
significantly better than control students in identifying main ideas of passages.

Study was conducted on 486 third grade students in four elementary schools with all 30 teachers as volunteers and 30 students were randomly assigned to one of three treatment groups during fall of 1986 in central Pennsylvania for four weeks treatment.

One group received direct instructions with cooperative learning for four weeks. Student used to read and teachers taught comprehension strategies. Teachers monitored students during team practice and providing additional instruction if necessary.

Second group received direct instruction in reading comprehension for four days a week. Third group was the control group using traditional instructional method in reading. A 30 items multiple choice pre-test was used to measure students entering abilities. The test was made up of 10 paragraphs. Post-test includes 20 items test was used as the dependent measures.

The results revealed that cooperative learning processes to direct instruction did not produce a statistically significant additional effect, but
students who used cooperative learning did average nearly a third post-test. When compared to the control group, the positive effects for cooperative learning were large. Thus cooperative learning processes that integrate direct instruction on comprehension and meta-comprehension strategies seems to be very effective.

MINNIS, BERNARD, I. (1986) investigated the effects of Team-Games-Tournament (TGT), an instructional strategy incorporating cooperative learning teams and instructional games, on cross-race, cross-sex, cross-socioeconomic status relationships, and to ascertain whether TGT increased the students' positive feelings about their classroom and the school in a desegregated setting. The data for this study were collected from 46 sixth-grade students in general mathematics classes at Du Valle Middle School, Jefferson Country School District, Louisville Kentucky.

A simple experimental group/control group designed was employed. Socio-metric measures were used to ascertain cross-race, cross-sex and cross-socioeconomic friendship choices, and a classroom perception instrument was used to ascertain the students' feelings about their classmates of different sex, race and socioeconomic status, as well as their feelings about
the classroom and school. The data were analysed through analysis of variance using 2 x 2 factorial model. An alpha level of 0.05 or below was necessary to be significant.

The following are the findings: No statistical significance was obtained for cross race or cross sex friendship choices; however, significance was ascertained at the 0.05 level for cross - socio economic status (SES) friendship choices. Significance was obtained for the subjects positive feelings about classmates of a different sex while no significant difference was discerned for positive feelings about the SES or the race of classmates.

Analysis of data resulted in no significant difference for positive feelings about the classroom or the school by race, sex, or socio-economic status. No significance was ascertained for positive feelings about the school by race and SES, while significance was obtained for an increase in positive feelings about the school by sex. Female subjects in the treatment group showed the greater gain.

The results were inconclusive about the effects of TGT cooperative learning situations; however, blacks,
Females, and low socio-economic status students showed the greater gain.

Farivar, E.H. (1985) developed his work on cooperative learning, an instructional methodology in which students worked on learning activities in small heterogeneous groups and received rewards or recognition based on their group's performance.

The study explores cooperative behaviour. Its focus is a single third/fourth grade class of 51 students and three teachers. It is an exploratory study that describes a cooperative class and a quasi-experimental study that compares the cooperative class with a traditional one. Analysis of variance and cross tabulation were used to determine whether differences existed between the two classes on social relationships, student attitudes, achievement, intellectual academic success, attribution and classroom climate. Analysis of variance also was used to examine the performance of the students in the cooperative class on tasks requiring cooperative skills and behaviours.

The study found students in the cooperative class had more positive feeling toward classmate than did students in the traditional class. Students like to
work cooperatively. They dislike working competitively.

Students in the cooperative class feel working cooperatively helps them learn best. Students in the cooperative class felt positively about working with students "smarter" than they. In the cooperative class students decreased liking to work with students less smart. Cooperation, increased productivity and interpersonal relationships were factors both classes liked about working in groups; they disliked lack of group skills, off task behaviour and negative social behaviour. There were no differences between the two classes on achievement. Students in the cooperative class had a significantly higher score on the measure of locus of control. There was a statistically significant difference between the two classes on all six sub-scales of the classroom climate measures. Cooperative behaviours increased over time with performance on the cooperative tasks.

Chang, Kuan -Yi Rose (1989) investigated cooperative class structure and computer mediated interactive video disk technology used as supplemental instructional device in beginning Spanish with 113 students divided in two treatment groups (1) Monadic and (2) Dyadic randomly. Overall achievement scores on
the post-test indicated no statistically significant difference between the two treatment groups. Post experimental results from the attitudinal questionnaire indicated an improved positive attitude towards learning Spanish using cooperative learning bending on monadic approach.

Koury, M.A. (1990) compared the effects of a peer tutoring programme and teacher directed instruction on the weekly spelling test performance of 19 junior and senior high school students with moderate mental retardation. The peer tutoring package consisted of: (a) active student responding (b) competing teams. (c) systematic tutoring procedures (i.e. time delay), (d) team points, and (c) public posting of achievement. In addition, the number of trials allowed the students across treatments was measured. A rapid alternation with a random sequence for alternating treatment design was used to assess the effects of the treatments. Results indicated that the peer tutoring programme significantly increased the number of opportunities to respond at both class levels. Higher performance gains were also noted with the peer tutoring approach at both levels. Social validity data suggested that both teachers/aides and students found the peer tutoring procedure both effective and acceptable. Implications
for instructional programming, spelling performance gain difference between levels, and directions for future research are discussed.

Sheng, Ray Chen-yaw (1990): The purpose of their study was to examine the teaching strategy of cooperative learning. This study assessed several science classes in Taiwan. Three groups of sixth-grade Chinese students (N = 117) were randomly selected for the treatment. Each group of 39 students was divided into equally members students in three ability levels (higher, middle, and low) with mixed gender. Group One was treated with the cooperative learning (training and organization) strategy. In this strategy, students were trained to share responsibilities in order to reach a common goal. Students in each section were divided into small groups of five students each and played different roles, such as leader, operator, evaluator, and recorder. The fifth student had no special title but he participated by helping this group members (e.g. to get chemicals and instruments from the desk of their teachers). Sometimes he may have had to help the operator or recorder. Each of the five students took turns every week. The treatment used for group 2 was cooperative learning with no training and
organization. Students in this group had no roles assigned. They were simply told the meaning of cooperative learning and discussed the skills needed. The third group had no training or organization for cooperative learning and simply engaged in traditional learning.

The results of this study show that cooperative learning (trained and organized) displayed a statistically significant difference when compared with the other two conditions (cooperative learning without training and organization and traditional teaching) in a test of process skill. There is no statistically significant difference between scores obtained by students engaged in cooperative learning with no training and organization and scores obtained by students participating in traditional teaching. It may be noted from the means of these two groups that a positive result was obtained, however, indicating that the cooperative learning strategy was better than traditional teaching.

The 39 high ability students (one third of the total) of the three groups achieved higher than the middle and low ability students in both process skills and the concept test. The 39 middle ability students
achieved higher than low ability students. There is a significant difference between ability levels.

Slavin, R.E. (1991) study the impact of cooperative learning on two groups of students using achievement test and found that the cooperative learning approach was equally effective in positive way to both high achievers and low achievers and showed that even the very highest achieving students benefited from cooperative learning in comparison to similar students in the two central schools. The only exception was on language mechanics, probably because the writing process approach they used did not emphasize mechanics out of the context of writing. The likely impact of untracking per se on the achievement of high achievers is no impact at all these students will do well wherever they are.

Hintz, J.L. (1990) investigated to what extent do teachers who choose to take a course about the use of cooperative learning implement the innovation? and what factors account for the variation in their use?

The study extended the research on change in education in several ways in general previous studies concerned with change have focused on changes agents rather than teachers, imposed not voluntary change.
short term inservice presentations not longer training through university courses, or on the adoption not the implementation of change. Finally, the research boys for cooperative learning in terms of student outcomes is extensive, but no studies focusing on why only some teachers choose to continue their implementation of cooperative learning appear in the literature on change.

Richard Rose (1991) used the Jigsaw approach, which is the approach of cooperative learning, in schools for children with severe learning difficulties in the East of England to see the effectiveness to help teachers to promote effective group work, while retaining the more advantageous elements of task analysis and individual planning. He keeps a profile of art and craft skills and recorded each child's performance on the kinds of objectives assigning each groups and individual. The different part of a task for 3 sessions therein activity sheets groups described lesson plan, individual needs, curriculum references, and individual responses.

At the end of the series of lessons which are all within the topic of 'ourselves' the children are encouraged to record their own responses to the
lessons, using a recording system based on the 'Prompt-writer' materials and overlay on a concept key board.

Conclusion can be drawn that the one strategy of cooperative learning he adopted to organise group works with children with severe learning difficulties ensured that individual needs are met by the strategy used.

Scott Terry, M. (1984) studied that the Cooperative Learning Environments (CLEs) utilized their interdependent learning strategies of student Teams Achievement Divisions (STAD) to determine their effects on relationships with peers, attitudes towards self and school, and achievement in spelling.

Sixteen ethnically balanced classrooms (grade 4-6) in three schools were randomly assigned to implement the CLE/STAD or to continue with traditional instructional strategies that did not include cooperative elements. The 452 students in these classes served as the subjects and represented four ethnic groups, Hispanics, whites, blacks, and Asians.

Students in the CLEs indicated more positive relationships with peers than did the students in the
more traditional with classrooms. They identified more cross-ethnic friends and they significantly reduced their rejections of cross-ethnic academic teammates at the completion of the ten-week study.

No significant difference was found in self-esteem between the students in the CLEs and the students in the more traditional classrooms. Although both groups showed improvement in self-esteem, the students in the more typical classes made the greater gains.

It was the more traditional classrooms that also indicated significantly more positive attitudes toward school. There was no significant difference in spelling achievement between students who employed cooperative learning learning strategies and students who received more traditional instruction. Students as a whole in the CLEs achieved more than control students.

Individual ethnic differences were apparent in the analyses of the research questions. Additional significant effects may have been impeded by substantially high pre-test scores, a sophisticated race/human relations program already in place, ethnic sensitivity to the testing instruments, and a well-
defined, teacher directed instructional component in both settings. Results of this study indicate that further investigation into CLEs is warranted.

The purpose of Anderson and Ted Stephen’s (1985) study was to determine how cooperative learning strategies in LDs seminary classes will effect student attitude toward classmates, the subject, learning activities, enjoyment and satisfaction from learning, and learning retention of basic facts and concepts of the course. Jigsaw, Jigsaw II, and control students were compared on the basis of their responses to the Seminary Attitude Survey and a subject test.

Statistical analysis of the hypotheses revealed that results were not significant except for achievement on the subject test due to method and sex interaction. Large differences in attitude gains, however suggest further research is needed to determine the reliability of this study. Further research was commended using the results from the present study as guidelines in establishing the methodology of future research.

Yager, Stuart, O (1985). In his study a comparison was made analyzing the results of using the structured and non structured student discussions during a series
of cooperative learning lessons focusing on maps involving 104 seventh and eighth graders. The two teaching conditions were compared for their impact on six student attitude measures, namely: (a) academic self esteem, (b) class cohesion, (c) cooperative learning, (d) positive goal interdependence, (e) resource interdependence, and (f) alienation, and two achievement measures: (a) end of unit test and (b) delayed retention test. The students were assigned to conditions on a stratified random basis controlling for ability. They participated in the study for 45 minutes a day for 25 instructional days. Attitude measures were recorded before and after the instructional unit; unit achievement was measured after the instructional unit; and retention achievement was measured 25 days after the instructional unit. The results indicate that structuring student discussion within Cooperative Learning groups contributes to the efficacy of cooperative learning. The results show a significantly positive increase on all attitudes measures for both conditions and superior achievement scores on both measures for the structured discussion condition.

Bruce, G.A. (1985) Conducted the study with 55 grade seven junior high students in Courtney British
The purpose of the study were to determine if the use of cooperative learning technique, coop coop, would result in (i) a significant increase in achievement in mathematics and (ii) a more positive student attitude toward the study of mathematics.

The study revealed that achievement gain scores were consistently higher for the treatment group. The treatment groups also had a statistically significant higher (more positive) attitude score. The investigator makes a number of recommendations based on the findings and conclusions of the study.

Morgan, B.M. (1987). The purpose of the study was to determine if students' perceptions of classroom life and their social integration differed between classroom where cooperative learning was structured at least 30% of time versus classrooms where it was structured less than 30% of the time. Achievement levels of students in high use and low use and comparison of relationship of highly trained teachers (those with more than 30 documented contact hours of training) and high use teachers was the reviewed. It included 138 teachers and 1138 students in grades two through ten in Anchorage, Alaska. Teachers received 3 to 45 hours of training in cooperative learning prior to the study.
It was conducted that students in classroom were cooperative learning strategies are used at least 30% of the time have a more positive view of classroom life, and their achievement scores reflect more growth in perceptions of social integration. Highly trained teachers were more likely to be high use teachers.

Slavin, R.E. (1988) studied that cooperative learning groups were compared to randomly selected or matched control groups on fair measures of objectives pursued and equally by both groups with a median length of 10 weeks but at least four weeks treatment including the activities. group goals and individual accountability, group goals only, individual accountability only, and no group goals or individual accountability.

The experiment shows that the success of cooperative learning in increasing student achievement depends substantially on the provision of group goals and individual accountability.

Martinez, L.J. (1990) investigated the relationship between cooperative learning and bilingual third grade students scores on achievement tests and self esteem scales through small group dynamics as a
way to teach social skills, for ten months. A socio-
gram was given to measure the number of students chosen
with whom to work and play. Cooperative learning did
extend the number of both same and different sex
students chosen. The self concept scale measured both
classes as growing in self concept but results was not
satisfactory significantly different. Differences
between the control and experimental classes on the
nine subtests of the California Achievement Test were
not statistically significant but did show a positive
trend when the means were compared.

Roberta, L.D. (1991) administered the study. "The
role of cooperative learning in increasing problem
solving ability in a college remedial course to
determine whether cooperative learning would help
students increase their problem solving skills. The
subject matter was high school algebra and geometry;
approximately a year and a half of high school
mathematics was to be covered in the semester long,
four credit course. Students were instructed to avoid
arguments and to compromise quickly when disagree-
mements occurred in a group. In the individualistic learning
condition, students interacted with the material
independently of other students.
Results on achievement tests and on retention tests 4 weeks later were significantly higher for students in the controversy groups than in either of the other two conditions, across all ability groups. In this study 100 students were registered each semester for a course designed to remove their deficiencies in high school algebra and geometry for eight weeks.

Two of the laboratory sections, randomly selected, served as the control group and in experimental group students are free to help each other in all areas except tests and exams with cooperation to work on puzzle or non routine questions.

At the performance he noted many results oriented towards cooperative learning approach in solving the problem. Particularly, students in the treatment group generally performed better than students in the control sections on the measures identified as testing the higher cognitive skills in respect of academic performance within whole group of college students.

Sutton, G.O. (1992) conducted the cooperative learning based approach in her central high school, Grand Rapids in mathematics subject with her class including five basic elements for small group learning to be truly cooperative. First was positive inter-
dependence appropriate use of inter-personal skills in
the group and fifth students must be given time for
analyzing how well their groups are functioning, in
mathematics subjects.

Cooperative learning results in success: she noted
two positive results of this approach. First, the
students keep asking questions until the other students
have explained the problem satisfactorily and all truly
understanding. Second, the discussions are conducted on
a mature level. She concluded that cooperative learning
was one of many successful teaching methods, but no
teacher should rely only on it; students and teachers
need variety.

Cooperative learning methods are among the most
extensively evaluated alternates to traditional
instruction in use today. Outcome evaluations include
(1) academic achievement, (2) intergroup relations, (3)
mainstreaming, (4) self-esteem, (5) attitude and (6)
little on training. Slavin R.E. (1991) synthesis that
more than 70 high quality studies have evaluated
various cooperative learning methods over period of at
least four weeks in regular elementary and secondary
schools in respect of academic achievement. 67 of these
have measured effects on student achievement. All these
studies compared the effects of cooperative learning to those of traditionally taught control groups on measures of the same objectives pursued in all classes. Teachers and classes were either randomly assigned to cooperative or control conditions or matched on pre-test achievement level and other factors. 41 found significantly greater achievement in cooperative than in control classes. 25 found no differences and in only one study did the control group out perform the experimental group. However, the effects of cooperative learning vary considerably according to the particular methods used.

Janqira, N.K. and Ainscow, Mel (1991) conducted a four days workshops with 20 inservice teachers from all over the India at Bangalore using cooperative learning approach for training of teachers and saw a great change in their attitude towards leaning teaching through the use of cooperative learning approach following Unesco decided five areas of active learning, negotiation of objectives, demonstration practice feedback, continuous evaluation and support; and the those teachers followed the same approach for training effect transfer to practice in actual classroom teaching and the results obtained in the review meeting
showing that the learning measured students following which reflect in the classroom (March 1993) were quite favourable, showing that the pupil perception inventory towards learning measured the improvement in attitude of students following cooperative learning based approach. Which reflect effective teaching of all children in the classroom through the applied approach.

2.1.0 COMMENT ON THE REVIEW OF RELATED STUDIES

In all the studies conducted so far the following concepts have been used for isolating and identifying hypothetical factors:

a) Cooperative learning approach
b) non cooperative learning/traditional approach
c) Achievement of students
d) Teacher attitude
e) pupil perception/Attitude

2.1.1 COOPERATIVE LEARNING APPROACH

In most of the studies the cooperative learning was considered as "Cooperative Learning Based approach provides a task structure in which a group of four to six students of heterogeneous ability work together, involving individual reading and reflecting the learning in impairs, small groups and then they share their ideas in large groups providing several varieties of learning" All the concerned studies revolve around this approach.
2.1.2 NON COOPERATIVE LEARNING/TRADITIONAL APPROACH

Non cooperative learning/traditional approach was constituted as the lecture-cum-demonstration method, simple feeling method and non practice ways were considered in this regard.

2.1.3 ACHIEVEMENT OF STUDENTS

Most of the studies measures the effectiveness of a method, whatever may be cooperative learning approach or traditional way of teaching, by achievements of the students through the set questions related to the study units. Many researcher adopted this to study the effectiveness of the methods for training effects transfer to practice instead of any measure.

2.1.4 TEACHER ATTITUDE

As for as the teacher training is concerned, mostly the studies conducted till now, studied the change in attitudes of teacher using a particular approach of training in practice. Here also mostly the investigators concerned with effectiveness of cooperative learning based approach and traditional approach tried to measure the change in attitude of teachers by teacher attitude scale as the measure for effectiveness of the treatment they used.
2.1.5 PUPIL PERCEPTION

Pupil perception is a measure to know the reaction of the students about the particular method or technique by which they were taught and what change the students got due the treatment given to them in their attitude or perception. This pupil perception leads to the training effect transfer to practice. This was the concept adopted in most of the previous cited researches.

2.2.0 DEVIATION OF PRESENT STUDY FROM PREVIOUS STUDIES CONDUCTED SO FAR

After reviewing the related literature it is clear that studies undertaken on cooperative learning have been mostly confined to the students' academic achievement and little on students' attitude at elementary and secondary levels. The investigator did not come across any study which sought to identify the effectiveness of cooperative learning based training approach on (inservice) teacher attitude towards learning teaching and transfer to practice in actual classroom teaching. Hence, present investigation seems to be sufficiently warranted and needed. Scrutiny of the available literature abroad and in India reveals that no such study has so far been undertaken by the researcher.
Thus, the review presented above indicates that there is a dearth of studies available, which have direct bearing on the present investigation. However, it has been quite helpful identifying variables of the study, formulation of objectives and hypotheses as stated in chapter I. It is, therefore, the present study aims to identify the effectiveness of cooperative learning based training approach with traditional training programme for actual classroom teaching. In the following chapter methodology and the procedures of the study have been reported.