CHAPTER V

METHOD AND PROCEDURE

5.1 DESIGN

This study is experimental in nature. Study was conducted in five phases. In first phase, construction and standardization of Achievement Test in Accountancy was completed. The second phase involved administration of Intelligence Test and SES Scale for the purpose of matching three groups. The third stage involved pre-testing of students on achievement test, self-concept questionnaire, adjustment inventory and group embedded figure test. Fourth phase involved treatment period of 16 weeks to three groups. In fifth phase the four tests namely achievement test in Accountancy, self-concept questionnaire, adjustment inventory and group embedded figure test were administered on all the three groups as post-test.

5.2 SAMPLE

The sample for the present study consisted of 60 students studying in XI Class in same institution. These 60 students were divided into three groups (20 in each group) after matching them on intelligence and SES level. Two groups constituted the experimental groups (E₁) and (E₂) and the third group as control group (C).
TABLE 5.1
DETAILS OF SAMPLE

<table>
<thead>
<tr>
<th>Section</th>
<th>Group taught by</th>
<th>Group</th>
<th>No. of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section A</td>
<td>Inquiry Training Model</td>
<td>$E_1$</td>
<td>20</td>
</tr>
<tr>
<td>Section B</td>
<td>Mastery Learning Model</td>
<td>$E_2$</td>
<td>20</td>
</tr>
<tr>
<td>Section C</td>
<td>Conventional Method</td>
<td>C</td>
<td>20</td>
</tr>
</tbody>
</table>

= 60

5.3 TOOLS USED

1. Group Test of General Mental Ability (Tandon, 1971) used for matching the groups.

2. Socio-economic Status Scale (Kohli, 1983) used for matching the groups.


4. Adjustment Inventory (Mittal, 1976).

5. Group Embedded Figure Test (Witkin, 1971).

6. Achievement Test in Accountancy (This was constructed and standardized by the investigator himself.)

5.3.1 Group Test of General Mental Ability (Tandon, 1971)

As a measure of verbal intelligence the Hindi version of the Group Test of General Mental Ability (Tandon, 1971) was used in the present study. This test was preferred to
others as it is a well known test and is widely used in India. Moreover, being a group test, it can be administered conveniently to a number of students at a time.

The present form of the test is a second revision Test of 'General Mental Ability' - Form A, which was prepared and first used in 1950. Since then it has been used on a number of students reading in B.H.U. and other colleges of Varanasi town and also students of other states. The present version has been standardized on 200 students of B.H.U. and Varanasi town. The sample of the students was selected in a manner, so as to give fair representation of the students' population in India.

The test contains 100 questions. Besides, it employs 10 items for practice in the beginning. Each item has been framed in such a way that it provides mostly five alternatives to each question. This has been done with a view to making scoring more rigid and objective. The test consists of 9 sub-sets, namely Number series, Mathematical Instructions, Following Instructions, Vocabulary similars, Vocabulary opposites, Classifications, Analogies, Best answering and Reasoning. Some of these subsets have been found highly suitable for measuring general mental ability in Indian conditions.

The reliability coefficients of the test determined by three methods are (i) Split half method = .91; (ii) Kuder-Richardson formula = .90; and (iii) item reliability index
and the item variance = .90. The present form (20/52) of the test correlates .28 with the Rev. Minnesota Paper Form Board Test Series AA. This shows that there is some presence of an ability of spatial relations in this test. Further value of correlations = .35 with the academic examination marks and .67 with the 'Samoohik Mansik Yogyata Pariksha' (A Test of General Mental Ability in Hindi by Dr. S. Jalota) are reported by the author of the test. The test also correlates (r = .80) with the Samoohik Mansik-Yogyata Pariksha (1/61), the Hindi adaptation of 20/52 scale. In addition to these, g-saturations worked out by Spearman's technique, for all the sub-sets range from .30 to .87. The presence of some general factor has further been confirmed by the factorial analysis of the test using Thurstone's centroid technique. A few subsidiary factors have also been found but their identifications are yet to be confirmed by further investigations.

The test provides some simple directions in the beginning which are to be read carefully by the prospective investigator. To minimise the work of writing on the part of an examinee the answers have been framed in a manner to provide an answer to a question in a digit form of one figure only. The test proper is administered for 25 minutes only. Another 20 to 25 minutes are usually required for seating the candidates, distributing of test booklets and answer sheets, and later, collection of the test materials. Hence, this test can be
administered in a period of 4 to 50 minutes. The answer sheets are scored with the help of a scoring key provided for this purpose. This can be done by placing the scoring key on an answer sheet using a red pencil and crossing out wrong answers, scores are counted by adding up the right answers. Hence a raw score of a candidate is his total number of right attempts.

5.3.2 Socio-Economic Status Scale (Kohli, 1983)

Development of SES Scale

Socio-economic status scale was developed in such a manner as to provide a simple instrument which could be used without spending much time and effort and to yield a correct measure of socio-economic status of a student.

After studying the various aspects contributing to the status of a family, the investigator arranged the items in the questionnaire and then discussed with six experts to have their opinions in regard to the economic status of a family. While preparing the draft of the scale, due consideration was given to have the minimum number of variables in the scale for reflecting the socio-economic status. The first draft contained 13 statements which covered the queries about the total income of family members irrespective the profession/occupation of all the earning individuals therein. On the basis of the report of experts 4 statements pertaining to the queries about education and hobbies were dropped out.
The scale was redrafted and then submitted to the six experts of the department of Education, Panjab University for revision. The draft of the SES Scale thus developed, consisted of 9 questions. Rational weights were assigned to various responses for the scoring purposes. The questions and the weightage assigned to them are described below:

SES Question 1

In this question, the researcher enquired about the monthly income of the family to which a student belonged; also was asked the kind of source of income, that is, business or service. The weights were assigned on the total income of the family members ranging from 1 to 6.

SES Question 2

In this query, the investigator asked about the monetary help which the students got in the shape of scholarship or in any other form. The answer was to be given in the form either of 'Yes' or of 'no'. In the case of 'yes' response zero mark was allotted and for 'no' response one mark was assigned.

SES Question 3

In this query, the investigator asked about the arrangement made for the tutors at their homes. For the answer 'yes', 1 mark was assigned and for 'no' answer, zero mark was given.

SES Question 4

In this question weights were assigned on the total
amount which the student got as his pocket money. The weightage is explained in the table.

Weightage Assigned for Pocket Money

<table>
<thead>
<tr>
<th>Range of Pocket Money in Rupees</th>
<th>Upto 50</th>
<th>51-100</th>
<th>101-150</th>
<th>151-200</th>
<th>200 and above</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marks</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The upper limited of marks assigned was 5.

SES Question 5

In this query the rented 'house' was assigned '0' and owned house was given 1 mark.

SES Question 6

At the time of quantification this query was considered alongwith the SES question No.1.

SES Question 7

The researcher, in this query, asked about the type of house in which the students lived and weightage was given as illustrated in the table.

Weightage Assigned to the Type of House

<table>
<thead>
<tr>
<th>Type of House</th>
<th>Kachcha</th>
<th>Pucca</th>
<th>Bangalow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weights</td>
<td>0</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>
In this query, the investigator enquired about the rooms of different categories (categorization was made on the basis of usage). The weightage of rooms is given in the table.

**Weightage Allotted to the Room Categories**

<table>
<thead>
<tr>
<th>Categories of Rooms</th>
<th>Drawing room</th>
<th>Bed room</th>
<th>Study room</th>
<th>Dining Hall</th>
<th>Kitchen</th>
<th>Bathroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weightage</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

The investigator enquired in this query about the different articles which could be utilized in the daily life at home. The weights assigned to the different articles are mentioned in the table.

**Weightage Allotment for Articles**

<table>
<thead>
<tr>
<th>Weightage for each article</th>
<th>Names of the articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Heater, Electric fan, Bicycle, Stove</td>
</tr>
<tr>
<td>2</td>
<td>Camera, Transistor, Radio, Dining table</td>
</tr>
<tr>
<td>3</td>
<td>Air Cooler, Geaser, Grinder, Gas stove.</td>
</tr>
<tr>
<td>4</td>
<td>Refrigerator, Telephone, Pistol, Rifle, TV(B&amp;W).</td>
</tr>
<tr>
<td>5</td>
<td>Car, Tractor, Bike, Scooter, Air conditioner, VCR/VCP, Colour TV</td>
</tr>
</tbody>
</table>
Reliability of the Socio-Economic Status Scale

Reliability means the accuracy of measurement by a test. Mehrens (1976) says, "Reliability is typically defined as the degree of consistency between two measures of the same thing".

For the present study, the draft scale was administered to a sample of 50 students (25 students of rural area and 25 students of urban area). The statistical value of reliability-coefficient was found out to be 0.90 by the Test-Rest method.

Validity of the Scale

According to Best (1970), "Basic to the validity of a questionnaire is the right questions phrased in the least ambiguous way... The panel of experts may rate the instrument in terms of how effectively it samples significant aspects of its purpose, providing estimates of content validity".

Two methods were used to test the validity of SES scale (i) matching against outside criterion and (ii) comparison of dichotomous groups.

(i) Matching against outside criterion:

The validity of the scale was tested by requesting several teachers and students in the Higher Secondary School, to give the class estimate of the persons they knew well and then the actual occupation, income and assets were ascertained and the class estimate given on the basis of the socio-economic status scale. It was noticed that the scale worked satisfactorily for the social classes.
ii) Comparison of Dichotomous Groups

A heterogeneous group of twenty persons was interviewed. Each person was asked to indicate the names or the initials of three persons, who in his estimation had very high status in society. Then he was asked to give the names or initials of three persons who held, in his opinion, the lowest status in society. After obtaining the names of these six persons, he was asked to give the occupation, income and assets of each person. In this manner information was obtained regarding 50 persons 25 being of high status and 25 of low status.

The data of these two dichotomous groups were scored. Mean, standard deviation, standard error of difference and t-ratio of the groups are shown in the table.

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>SE_d(d)</th>
<th>t-ratio</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>High SES</td>
<td>89.32</td>
<td>14.966</td>
<td>3.873</td>
<td>9.749</td>
<td>Highly Significant</td>
</tr>
<tr>
<td>Low SES</td>
<td>51.56</td>
<td>12.269</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-ratio is highly significant implying that the scale under reference discriminates significantly between high and low groups based on the socio-economic status.

5.3.3 Self-concept Questionnaire (Saraswat, 1992)

Adolescence is a period of life with its own peculiar characteristics and problems. Hence for deep penetration into their perceptions their own physical, social, temperamental,
educational, moral and intellectual spheres of self-concept need to be explored. As such, an attempt has been made in this questionnaire for eliciting information regarding adolescent's perceptions and characteristics.

Description of Self-Concept Inventory

The self-concept inventory provides six separate dimensions of self-concept viz. Physical, Social, Intellectual and Temperamental Self-concept. It also gives a total self-concept score. The operational definitions of self-concept dimensions measured by this inventory are:

1. Physical: Individual's view of their body, health, physical appearance and strength.


3. Temperamental: Individual's view of their prevailing emotional state or predominance of a particular kind of emotional reaction.


5. Moral: Individual's estimation of their moral worth; right and wrong activities.


Table indicates item numbers included in different self-concept dimensions.
**Table 1**

**Self-concept Dimensions Along with their Item Numbers**

<table>
<thead>
<tr>
<th>Self-concept Dimensions</th>
<th>Code No.</th>
<th>Item Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>A</td>
<td>2, 3, 9, 20, 22, 26, 29, 31</td>
</tr>
<tr>
<td>Social</td>
<td>B</td>
<td>1, 8, 21, 37, 40, 43, 46, 48</td>
</tr>
<tr>
<td>Temperamental</td>
<td>C</td>
<td>4, 10, 14, 16, 19, 23, 24, 28</td>
</tr>
<tr>
<td>Educational</td>
<td>D</td>
<td>5, 13, 15, 17, 25, 27, 30, 32</td>
</tr>
<tr>
<td>Moral</td>
<td>E</td>
<td>6, 34, 35, 41, 42, 44, 45, 47</td>
</tr>
<tr>
<td>Intellectual</td>
<td>F</td>
<td>7, 11, 12, 13, 33, 36, 38, 39</td>
</tr>
</tbody>
</table>

The inventory contains 43 items. Each dimension contains eight items. Each item is provided with five alternatives. Responses are obtained on the test booklet itself. There is no time limit but generally 20 minutes have been found sufficient for responding all the items. Instructions for the time of administration of the inventory are also on the test booklets.

**Instructions to Students:**

Read the following instructions from the inventory in Hindi or English as the case may be-

This is a self-concept inventory. There are 43 items in it. Against each item there are five responses. You have to read each item carefully and respond to it by making a tick (✓) on any one of the five responses given against that item, which you think describe well.
There is no right or wrong answer. The right answer is only what you feel about yourself. Try to give your responses according to what you feel about yourself with reference to that a statement. Your answers will be kept confidential.

After the above instructions researcher explained the EXAMPLE given on the inventory.

Scoring Method

The respondent is provided with five alternatives to give his responses ranging from most acceptable to least acceptable description of his self-concept. The alternatives or responses are arranged in such a way that the scoring system for all the items will remain the same i.e. 5, 4, 3, 2, 1 whether the items are positive or negative. If the respondent put ( ) mark for first alternative the score is 5, for second alternative the score is 4, for third alternative score is 3, for the fourth it is 2 and for the fifth and last alternative score is one. The summated score of all the forty-eight items provide the total self concept score of an individual. A high score on this inventory indicates a higher self-concept, while a low score shows low self-concept.

Reliability

Reliability of the inventory was found by test-retest method, and it was found to be .91 for the total self-concept measure. Reliability coefficients of its various dimensions varies from .67 to .88. The following table shows the test-retest reliability for each dimension.
### TABLE

Test-Retest Reliability of the Self-concept Inventory

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Self-concept Dimensions</th>
<th>No. of Items</th>
<th>Reliability Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Physical</td>
<td>8</td>
<td>.77</td>
</tr>
<tr>
<td>B</td>
<td>Social</td>
<td>8</td>
<td>.83</td>
</tr>
<tr>
<td>C</td>
<td>Temperamental</td>
<td>8</td>
<td>.79</td>
</tr>
<tr>
<td>D</td>
<td>Educational</td>
<td>8</td>
<td>.88</td>
</tr>
<tr>
<td>E</td>
<td>Moral</td>
<td>3</td>
<td>.67</td>
</tr>
<tr>
<td>F</td>
<td>Moral</td>
<td>3</td>
<td>.79</td>
</tr>
<tr>
<td></td>
<td>Total Self-concept</td>
<td>48</td>
<td>.91</td>
</tr>
</tbody>
</table>

### Validity

Experts opinion were obtained to establish the validity of the inventory. 100 items were given to 25 psychologists to classify the items to the category to which it belongs. Items of highest agreement and not less than 80% of agreement were selected. Thus the content and construct validity were established.

### Standardization and Norms

The Self-concept Questionnaire was standardized on 100 students of 20 Higher Secondary Schools of Delhi pertaining to Delhi Administration and Central Schools. The students were from IXth, Xth and XIth classes ranging from 14 to 18 years of both the sexes.
TABLE

Interpretation and Classification of Raw Scores for all Dimensions.

<table>
<thead>
<tr>
<th>Self-concept Dimension Score</th>
<th>Interpretation (Category)</th>
</tr>
</thead>
<tbody>
<tr>
<td>33 to 40</td>
<td>High Self-concept</td>
</tr>
<tr>
<td>25 to 32</td>
<td>Above Average Self-concept</td>
</tr>
<tr>
<td>17 to 24</td>
<td>Average Self-concept</td>
</tr>
<tr>
<td>9 to 16</td>
<td>Below Average Self-concept</td>
</tr>
<tr>
<td>Upto 8</td>
<td>Low Self-concept</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Raw Score</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>193 to 240</td>
<td>High Self-concept</td>
</tr>
<tr>
<td>145 to 192</td>
<td>Above Average concept</td>
</tr>
<tr>
<td>97 to 144</td>
<td>Average concept</td>
</tr>
<tr>
<td>49 to 96</td>
<td>Below Average concept</td>
</tr>
<tr>
<td>1 to 43</td>
<td>Low concept</td>
</tr>
</tbody>
</table>

5.3.4 Adjustment Inventory (Mittal, 1976)

This inventory is intended for use with high school and college students, ranging in age from 11 years to adulthood. It is suitable for both the sexes. The tool is chiefly meant for discriminating well adjusted from poor
adjusted ones. The inventory provides separate measures of adjustment in four areas:

(a) Home adjustment
(b) Social adjustment
(c) Health and Emotional adjustment
(d) School adjustment.

In all there are 80 items which are equally distributed among the four areas of adjustment. The respondents are required to score their responses in three categories 'Yes', '?', 'No'. There is no time limit to complete the inventory, but in general students take 30-35 minutes in going through instruction and recording their responses.

A high score in inventory indicates superior adjustment while low score is the indicator of poor adjustment. This list is meant for group administration but when required can also be used with individual cases without affecting its validity.

**Reliability of the Inventory**

Reliability of the inventory has been obtained by split-half method on odd and even items of the inventory as on four scales separately.

The reliability coefficient for four areas of the inventory are separately given below:

<table>
<thead>
<tr>
<th>Area of Adjustment</th>
<th>Split-half Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Home Adjustment</td>
<td>+ .64</td>
</tr>
<tr>
<td>(b) Social Adjustment</td>
<td>+ .44</td>
</tr>
<tr>
<td>(c) Health and Emotional Adjustment</td>
<td>+ .80</td>
</tr>
<tr>
<td>(d) School Adjustment</td>
<td>+ .34</td>
</tr>
</tbody>
</table>
Validity of Inventory

The inventory has been validated with different indexes at different levels. It has been validated against two external criteria:

(a) Teacher's ratings of their pupil overall adjustment.
(b) Parent's rating.

5.3.5 The Group Embedded Figure Test (Witkin et al., 1971):

The choice of cognitive style test was quite difficult because no Indian test is available. The alternative was either to construct a new test or to select one test out of various tests of cognitive styles which are already in use. Due to shortage of time, the investigator preferred to use The Group Embedded Figure Test (GEFT) because it is a group test and individual can be tested within 25 minutes of time. Moreover, this test has been widely used by Dimasha et al. (1980) and Tata (1983).

The GEFT has been modelled as closely as possible on the individually administered EFT with respect to mode of representation and format. In this test the simple figures are incorporated into the complex one. In other words, the outlines of the simple form might form the boundaries of several different prominent sub-pattern in the complex figure so that the simple form in effect lost its identity as a separate perceptual unit.

The Group Embedded Figure Test (GEFT) contains eight simple forms. The test is divided into three sections. The first section contains seven very simple figures and is primarily
for practice, and each of the second and third section contain nine more difficult figures. The subject has to trace the simple forms in the complex figure. The subject may look back at the simple form as often as she wishes. Within each section, the figures are in ascending order of their difficulty level. For solving the problems students are asked to read the statements at the bottom stressing the necessity for tracing all the lines of the simple form including the inner lines of the simple form and erasing all the incorrect lines. There is a time limit of five minutes each for second and third section.

The individual score is the total number of simple forms traced correctly in the second and third section combined. The items in the first section are not included in the total score.

The test has a fairly high reliability (as shown by Spearman Brown Formula) of .82 for both males (N=80) and females (N=97) from an Eastern Liberal Arts College (Witkin et al. 1971). These reliability estimates compare favourably with those of the EFT. Since GEFT is intended as a group form of EFT, the most direct criterion measure is the parent form of the test, namely EFT for assessing the validity of GEFT, validity co-efficient as given by the author for male population (N=73) is .82 and for female population (N=63) is .63.

In view of fact, that the GEFT was used on Indian population in the present study, the researcher employed test retest method of establishing reliability.
The GEFT was administered on a sample of 20 students of XI class selected from Government Girls Senior Secondary School, Udhampur. The second administration was done after an interval of ten days. The Pearson's Product Moment Coefficient of Correlation was obtained between the scores of two administration which was found to be .83, thus showing that GEFT is having high reliability and can be safely used in the present study.

5.3.6 Achievement Test in Accountancy

This test was constructed and standardized by the investigator himself. Detailed steps for the standardization of the test have been given in Chapter IV.

5.4 DEVELOPMENT OF EXPERIMENTAL MATERIAL

Four units of XI class Accountancy syllabus prescribed by J & K Board of School Education constituted the course content covered in the experiment.

Keeping in mind all the concepts in each lesson to be covered in the experiment, outlines of all the lessons were constructed. The list of questions provided in the text-book was supplemented by developing additional questions from each unit.

Two forms of mastery tests/formative tests for each of the four units were constructed. These tests are an integral part of mastery learning strategy as they enable the teacher to find out whether the learner has attained the mastery level
at the completion of each unit. It helps in identifying the students' difficulties and thus in providing remedial measures appropriate to the needs of the student during the course of experiment. The procedural steps followed in constructing the formative/mastery tests were:

1. Deciding the Subject and Units:

   Subject field identified for the purpose of experiment was Accountancy. Four units selected were:
   
   1. Accounting Equations and Basics
   2. Errors and Rectification
   3. Bank Reconciliation Statements
   4. Final Accounts

2. Content Analysis:

   An analysis of the learning units into its components was made. New content was defined in terms, facts, rules, principles, skills, procedures covered in the new material which had not been introduced to the students in prior learning units. Then a test of identified elements of new content was prepared.

3. Formulation of Specific Objectives:

   Specific objectives in terms of behavioural outcomes of students were formulated. While formulating these objectives, all the contents to be covered in the experiment were kept in mind.

4. Construction of Formative Tests:

   Two parallel forms of the test were developed keeping
in mind the contents and the specific objectives. List of correct answers was also prepared for each of the tests.

5. **External Review**

The two forms of the tests were subjected to review by experienced teachers teaching Accountancy to Class XI. This was done in order to detect and eliminate flaws, if any, in the preparation of tests.

6. **Internal Review**

Internal review was conducted to ensure that all the questions in all the forms of the test were in consonance with the specific objectives besides checking out deficiencies in the tests.

5.5 **EXPERIMENTAL PROCEDURE**

Following steps were followed in the conduct of this experimental study:

**Step 1:** Group test of General Mental Ability and SES Scale were administered on the entire sample to match the three groups from 4.9.2000 to 8.9.2000.

**Step 2:** Achievement test, Self-concept questionnaire, Adjustment Inventory and Group Embedded Figure Test were administered to all the three groups as pre-tests from 14.9.2000 to 20.9.2000.

**Step 3:** First group called experimental group (E₁) was taught by inquiry training model; second group called
experimental group (E₂) was taught by mastery learning model and the third group called Control group (C) was taught by conventional method of teaching accountancy. All the three groups were taught by the investigator himself for 16 weeks from 3.10.2000 to 24.1.2001.

The criteria decided for mastery was 80 per cent mastery by 30 per cent of students. The procedure consisted of following mastery learning steps:

(a) **Informing the students about the Instructional Objectives**

Students were told about the units to be covered. They were also told about the sequence in which the units selected were to be taught. The concepts, rules and processes involved were specifically made explicit to the students. Instructional objectives were made clear to the students. They were told about the mastery level decided.

(b) **Assessment for Pre-requisites**

The test was conducted to assess the pre-requisites for the first unit. The students found deficient in necessary pre-requisites were given the help they needed. It was done to ensure that all the students were equipped with the necessary pre-requisites before starting the teaching of first unit.

(c) **Teaching the learning task**

First unit "Accounting Equations and Basics" was taught to (E₂) group employing the usual techniques of teaching
with a view to bringing the maximum number of students to the level of maximum learning.

(d) **Unit Formative Test No.1**

The presentation of learning task was followed by assessment of the mastery level of the students by administering the formative test N.1. It helped the investigator in classifying the pupils in groups according to their levels of learning. Pupils who scored 80 per cent mastery or above of the content taught were placed in one group called mastery group. Rest of the students were placed in another group called the non-mastery group.

(e) **Differential Teaching Sessions**

Non-mastery group was further divided into sub-groups. Students approximating the mastery level getting 60% or above but less than 80% required a little more practice which they were made to do themselves with additional materials related to the learning task to achieve mastery level. Students scoring 40% or above but below 60% were divided into smaller groups. They were assisted by small group peer instruction by the students of mastery group. The remaining group of students consisting of those who scored less than 40% were intensively taught by the researcher himself. In the light of the formative test N.1 the researcher provided guidelines to the peers about how to assist students under their care. The researcher also told the students about their respective strength and weakness as shown by their performance in the
formative test N.1. They were also told about the necessary corrective measures.

(f) **Formative Test N.2**

The students were then administered formative test N.2. On the basis of results, nearly all the students were placed in mastery group.

(g) **Teaching the Next Unit**

The teaching of second unit was started and the procedure and steps followed in teaching Unit 1 were repeated. Same procedure was followed for teaching Unit 3 and Unit 4. Formative tests on Units 1, 2, 3 and 4 have been appended with the thesis (Appendix VI).

**Programme of Teaching (Treatment)**

<table>
<thead>
<tr>
<th>Step 3</th>
<th>Model</th>
<th>Unit-1</th>
<th>Unit-2</th>
<th>Unit-3</th>
<th>Unit-4</th>
</tr>
</thead>
</table>
Step 4:

At the end of "treatment period, all the four tests namely Achievement test, Self-concept, Adjustment Inventory and Group Embedded Figure Test were administered on all the three groups as post test from 1.2.2001 to 9.2.2001.

5.6 STATISTICAL TECHNIQUES USED:

Techniques of mean, standard deviation and t-ratio were employed for the purpose of data analysis.