CHAPTER – III

RESEARCH METHODOLOGY

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CHAPTER – III

RESEARCH METHODOLOGY

3.1 Introduction

Research in common parlance refers to a search for knowledge. One can also define research as a scientific and systematic search for pertinent information on a specific topic. In fact, research is an art of scientific investigation. The Advanced Learner’s Dictionary of Current English lays down the meaning of research as “a careful investigation or inquiry especially through search for new facts in any branch of knowledge.” Redman and Mory define research as a “systematized effort to gain new knowledge of the unknown. It is actually a voyage of discovery. We all possess the vital instinct of inquisitiveness for, when the unknown confronts us, we wonder and our inquisitiveness makes us probe and attain full and fuller understanding of the unknown. For obtaining the knowledge of whatever the unknown, can be termed as research. Research is an academic activity and as such the term should be used in a technical sense. According to Clifford Woody, research comprises defining and redefining problems, formulating hypothesis or suggested solutions; collecting, organising and evaluating data; making deductions and reaching conclusions; and at last carefully testing the conclusions to determine whether they fit the formulating hypothesis.

D. Slesinger and M. Stephenson in the Encyclopaedia of Social Sciences define research as “the manipulation of things, concepts or symbols for the purpose of generalising to extend, correct or verify knowledge, whether that knowledge aids in construction of theory or in the practice of an art.” Research is, thus, an original contribution to the existing stock of knowledge making for its advancement. It is the pursuit of truth with the help of study, observation, comparison and experiment. In short, the search for knowledge through objective and systematic method of finding solution to a problem is research.
The systematic approach concerning generalisation and the formulation of a theory is also research. As such the term ‘research’ refers to the systematic method

Research word contain followings

R - Raw Material can be finalised
E - Ethics must be maintain
S - Solution for Problems
E - Estimation of work
A - Accuracy in work
R - Remove barrier
C - Create New Things
H - Head, Hand and Hart use as a proper manner

3.2 Research Methods

Research has three types, they are follows

Figure 3.1 Types of research
1) **Fundamental Research** it is concerned with knowledge for the sake of theory. Its design is not controlled by the practical usefulness of the findings.

2) **Applied Research** it is concerned with showing how the findings can be applied or summarized into some type of teaching methodology.

3) **Action Research** it goes one step further and applies the findings of research to a specific action, teaching situation. Each of the three different types of research contributes to the other in helping revise and frame the research from each category.

### 3.3 Research Methodology for Present Study

Three Objectives from present Study has applied separate method.

1) Researcher has Selected Survey Method to achieve first objective that is finding Identified Units which are hard to learn Accountancy subject for XI th standard VI students

2) Researcher has selected Product Development for achieve second objective that is Develop Course Material Package for XI th standard VI students.

3) Researcher has selected Experimental Method to achieve third objective that is to find out effectiveness between pre test and post test.

### 3.4 Research Methodology for Objective 1

Objective 1 is, to find out identified units from XI th standard accountancy subject for development of CMP for VI student.

#### 3.4.1 Selection of Method for Objective 1

Researcher has selected survey method for completion of objective 1. It is to find out identified units of accountancy subject which are difficult to learn to Visually Impaired XI th standard student.
3.4.2 Research questions for Survey Method

This research question is for survey method of objective 1.
In which units XI th standard VI student have difficulties while learning accountancy subject?

3.4.3 Informants for Survey Method

This study is performed on following Informants
(A) For survey method 17 teachers are Informants, they are teaching accountancy to XI th std VI student.
(B) For survey method 22 VI students are Informants, who are learning accountancy subject in XI th std.

3.4.4 Data Collection Tools for Survey Method:

Data Collection Tools for Survey Method are follows:
(a) Questionnaire for teacher who teach accountancy to VI XI th standard student. (Ref Apendex C -1)
(b) Questionnaire for XI th standard VI student. (Ref Appendix C -2)
Both questionnaire consist 12 close ended questions with other 12 close ended sub questions.

3.4.5 Validation of Data Collection Tools

For validation of data collection tool Researcher took opinion from experts, details are followas,

Table 3.1 List of Experts for Validation of Data Collection Tool

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name of the Expert</th>
<th>Designation</th>
<th>Name of the Institute</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr.Madhav Punekar</td>
<td>Reader</td>
<td>S.N.D.T. College of Education Pune</td>
</tr>
<tr>
<td>2</td>
<td>Dr. Kalpana R. Kharade</td>
<td>Vice Principle</td>
<td>K.J.Somaya College of Education ,Vidyavihar</td>
</tr>
</tbody>
</table>
3.4.6 Improvement in Data Collection Tool

After Validation some changes were made as per instructions given by expert. As well as easy Questions and very hard Questions werw removed after Pilot study.

3.4.7 Data Analysis Tools for Survey Method:

Percentage was used to analyse the questionnaire of teachers who teach Accountancy Subject to XI th Standard VI Student and questionnaire of XI th Standard VI student.

Detail analysis given in chapter four.

3.4.8 Selection of Identified Units from Survey Method:

As per analysis of both questionnaire following units were identified which were difficult to learn Accountancy subject for XI th std VI student

(a) Classification of accounts
(b) Journal
(c) Ledger
3.5 Research Methodology for objective 2:

Objective second was, to develop the CMP as per identified units of accountancy subject for XI th standard VI student, the researcher select following method.

3.5.1 Selection of Method for objective 2:

Researcher has selected product development method to achieve objective 2.

3.5.2 Objectives for Developing the C.M.P.

Following are the objectives to develop CMP
1) To find solution on XI\textsuperscript{th} standard VI students’ difficulties for identified units.
2) To find easier way to teach accountancy subject for XI th standard VI student.
3) To find proper way to integrate Braille booklet as well as Audio Material.
4) To analyze the content of technical portion from accountancy subject like journalization and ledger posting into small parts.
5) To find good utilization of CMP.
6) To find out functioning of CMP irrespective of time, person and place.
7) CMP should be easily available.

3.5.3 Theoretical Base for C.M.P.

(A) Bruner’s knowledge based theory: As per this theory learning of new concept always based on previous knowledge. In this CMP analysis of Journalisation and analysis of ledger posting is based on basic rules of Accountancy.
(B) Gagne’s Hierarchical Theory of Learning: As per this theory Gagne classify learning in to 8 levels, 8th level is based on problem solving. This CMP also based on problem solving system. Last 5 entries and its journalization is based on Small questions and its solution that every child can learn every content but as per his own time VI student also use this material in college as well as at his/her home and he/she can use it frequently and learn on his own way.

(C) Guthrie’s theory of learning: as per this theory learning is based on real situation and students’ response. This CMP also based on students response and examples are based on real situation.

(D) Pavlov’s Theory of Classical Conditioning: as per this theory natural stimulus get natural response but after conditioning artificial stimulus get natural response. In this CMP at first VI student get knowledge about Journalisation of Journal entries but after 15 entries they have to answer of questions based on Journalisation.

(E) Thorndike’s trial and error theory of leaning: he explained three laws for learning. CMP is related to two laws among these 3 laws. Those are as follows.

(i) Law of readiness: Due to utilization of Braille booklet and Audio Material VI students are ready with interest for grasping the learning content.

(ii) Law of practice: CMP content repetition of rules of types of account to achieve perfection.

(F) Watson’s behaviouristic theory: Learning is depending upon response and stimuli. As well physical activity is responsible for learning. Researcher has used Braille booklet and Audio Material as stimulants for VI students. Furthermore handling of Braille booklet consist physical activity.
### 3.5.4 CMP Criteria

#### Table 3.2 Criteria base for CMP

<table>
<thead>
<tr>
<th>Part of CMP</th>
<th>Criteria Base</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>A---2</td>
<td>Question Base Classification of Account</td>
<td>Premavathy V. and Victoria G. (2009), Education of children with Low Vision</td>
</tr>
<tr>
<td>C---2</td>
<td>Information Base On Ledger Posting</td>
<td>Deshprabhu S. (2010), Special Needs</td>
</tr>
</tbody>
</table>
### CMP Steps in detail

This CMP, based on Braille Booklet and Audio Material, Classify in to three parts

A-Classification of Account  
B- Journal  
C- Ledger

**Part A**- based on Classification of Account. This part has two sub parts: Part A-1 and Part A-2

**Part A-1:** This part involves definitions, meaning, examples and rules of Personal A/C, Real A/C and Nominal A/C.

**Objectives for part A-1**

1. To provide accurate information about definition, meaning, examples and rule of Personal Account.  
2. To provide accurate information about definition. Meaning, examples and rules of real Account.  
3. To provide accurate information about definition. Meaning, examples and rules of Nominal Account.

**Activity**

XI th Standard Visually impaired students can Listen Audio Material and read Braille Booklet of same content i.e. information of Personal A/C Real A/C and Nominal A/C.
Part A-2
It involves questions based on Classification of Account for example
1- What is Personal A/C?
2- Give any example of Personal A/C?
3- What is the rule of Personal A/C? etc
4- Personal A/C?

Objectives for Part A-2
1. To revise the information provided in previous Part A-1
2. To make practice of VI students about classification of Accounts

Activity
XI th Standard VI- Students can answer of provided questions. If they want to verify their answer or they forget answer they can use information from Part A1

Part B- based on Classification of Journal. This part has three sub parts: Part B-1, Part B-2 and Part-B3

Part B-1: This Part involves Definition, Meaning of Journal, Columns of Journal, Casting of Journal, Rules of Journalizing the journal entries, etc

Objectives for Part B-1
1- To provide the information of Journal
2- To make clear concepts of columns of Journal
3- To provide information of steps related to Journalization of Journal Entries

Activity
XI th Standard VI Student can Listen Audio Material and read Braille Booklet containing the information about journal and its columns, as well as the steps of journalizing the Journal Entries.

Part B-2: It involves 15 Journal Entries and process of its Journalization based on analysis process, for example: Transaction - Purchased goods on cash Rs. 20,000
Analysis: In this transaction two accounts are involved Cash A/C and Goods A/C. Cash A/C is Real A/C and rule of real a/c is debit what comes in and credit what goes out at the time of purchasing cash goes out from business hence cash a/c should be credited. Goods a/c also real a/c at the time of purchase, goods come in the business hence goods a/c should be debited the entry will be Goods a/c debit TO Cash a/c.

Objectives of Part B-2

1- To analyze the rules of journalisation of journal entries
2 -To provide the knowledge about journalization of journal entries
3- To revise the rules of accounts

Activity

XI th Standard VI Student can listen Audio Material and Read Braille Booklet for getting the information about journalization of Journal entries

Part B-3: In this part 5 journal entries are involved. Their journalization is based on small questions for example, Transaction commission paid Rs.10,000

Analysis questions
1 - How many accounts are involved in this transaction ?
2- Which are they?
3 - Which type of commission is? etc

Objectives of Part B-3

1- To make small questions based on journalization of journal entries
2- To make practice about rules of journalization

Activities

XI th Standard VI Student listen Audio Material and Read Braille Booklet and answer the questions and verify their answers at last with journal entry.

Part C- based on Classification of Journal. This part has three sub parts: Part C-1, Part C-2 and Part-C3
**Part C-1:** This Part involves definition, meaning of Ledger, Columns of Ledger, Balancing of Ledger, Rules of Ledger, posting of journal entries.

**Objectives for Part C-1**

1. To provide the information of Ledger
2. To make clear concepts of columns of Ledger
3. To provide information of steps related to Ledger posting of Journal Entries

**Activity**

XI th Standard VI Student can listen Audio Material and read Braille Booklet containing the information about Ledger and its columns, the steps of ledger posting and the Journal Entries.

**Part C-2:** It involves 15 Journal Entries and process of Ledger posting based on analysis process, for example: Transaction - Purchased goods on cash Rs. 20,000

Analysis: Entry of this transaction is Goods a/c debit TO Cash a/c. Hence Cash a/c is posted for debit side of Goods a/c and Goods a/c is posted for Credit side of Cash a/c

**Objectives of Part C-2**

1. To analyzes the rules of Ledger posting of journal entries
2. To provide the knowledge about Ledger posting of journal entries
3. To revise the rules of accounts

**Activity**

XI th Standard VI Student can listen Audio Material and read Braille Booklet for getting the information about Ledger posting of Journal entries.

**Part C-3:** In this part 5 journal entries are involved. Their Ledger posting are based on small questions, for example: Transaction commission paid Rs.10,000

Analysis questions
1. Which is the entry?
2. Which a/c is debited?
3. Which a/c is credited? Etc

**Objectives of Part C-3**

1- To make small questions based on Ledger posting of journal entries.
2- To provide knowledge about Ledger posting through small questions
3- To make practice about rules of Ledger posting

**Activity**

Can answer the questions and verify their answers at last with explanation of ledger posting

**3.5.6 CMP Delivery methodology**

At First Instructions was given by Instructor about CMP to XI th Standard VI as integrated, at first VI students were listen Audio Material and Feel Braille Booklet for learning information based material than answer small questions based on analysis based material.

**3.5.7 Parts of CMP**

A  Audio Material
B  Braille Booklet

**3.5.8 Validation of CMP**

For Validation of CMP Researcher took opinion from experts which was mention in Table 3.1 and also took opinion from teachers who teach accountancy to 11 th standard VI students. Mention in Appendix E-1.

**3.5.9 Pilot Study for Improvement of CMP**

Researcher conducted pilot study for improvement of CMP on same five XI th standard VI students which was mentioned in pilot study of data collection tool.
3.5.10 Improvement in CMP

(a) At first 10 journal entries are based on information and other 10 are based on small questions but after pilot study changes are made and 15 entries based on information and only 5 entries based on small questions.
(b) At first audio material prepared through jaws software but after pilot study Audio Material prepared with research’s voice to understand it clearly.
(c) At first, Audio material and Braille booklet are separately provided but after pilot study both are provided at the same time.

3.5.11 Flow Chart for The Development Of CMP

Figure 3.2 Flow chart for Development of CMP

Formulation objectives of CMP
  ↓
Analysis of content
  ↓
Preparation of CMP draft design
  ↓
Opinion obtaining from Guide and Experts
  ↓
Conducting a Pilot study of CMP
  ↓
Finalization of CMP
  ↓
Implementation of CMP
  ↓
Testing of CMP

3.6 Research Methodology for Objective 3

Objective third was to find out the effectiveness of developed CMP as teaching accountancy subject for XI \textsuperscript{th} std VI student. For achieve this objective researcher select following method.
3.6.1 Selection of Method for Objective 3

Objective third is related to testing CMP, for this researcher had selected experimental method.

3.6.2 Research Design for objective 3

In this research, researcher selected single group design from Pre experimental design

\[ O_1 \times O_2 \]

\( O_1 = \text{Pre test} \quad O_2 = \text{Post test} \) (Best J.W & Khan J.V. 2010 P. 179)

**Figure 3.3 Research Design**

- Selection of sample
- Pre test
- Administration of CMP
- Post test
- Analysis of data
- Interpretation

3.6.3 Rational Behind research Design

Researcher used single group design because available informants were less numbered for this research, researcher took opinion from guide as well as expert and conduct experiment on total Informants.
3.6.4 Informants for Experiment

In this research informants were 22, VI, 11th standard commerce students. Researcher conducted experiment on total available informants. List given in Appendix E-2.

3.6.5 Variables related to Experiment

Variables related to this study are denoted in the following table:

Table 3.3 Types of Variables

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name of Variable</th>
<th>Type of Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Developed CMP for XI th Standard VI Students</td>
<td>Independant</td>
</tr>
<tr>
<td>2</td>
<td>Achievement score achieved by XI th standard VI students</td>
<td>Dependant</td>
</tr>
<tr>
<td>3</td>
<td>Age of Informants</td>
<td>Control</td>
</tr>
<tr>
<td>4</td>
<td>Time provide for use CMP</td>
<td>Control</td>
</tr>
<tr>
<td>5</td>
<td>Account Acievement Test</td>
<td>Control</td>
</tr>
<tr>
<td>6</td>
<td>Test Administar</td>
<td>Control</td>
</tr>
<tr>
<td>7</td>
<td>Junior College Environment</td>
<td>Control</td>
</tr>
<tr>
<td>8</td>
<td>CMP Delivery Environment</td>
<td>Control</td>
</tr>
</tbody>
</table>

3.6.6 Data collection tool for objective 3

Researcher used Accountancy Achievement Test i.e. Pre test and Post test as a data collection tool for objective 3. Researcher divided this achievement test into three parts based on knowledge comprehension and application it includes objective type questions, short answer type questions and technical type questions.

Refer Appendix – D.
Table 3.4 Details of data Collection Tool for Survey Method

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Unit Name</th>
<th>Duration of test</th>
<th>Maximum Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Classification of Accounts</td>
<td>30 min</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Journal</td>
<td>30 min</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Ledger</td>
<td>30 min</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>90 min</td>
<td>45</td>
</tr>
</tbody>
</table>

3.6.7 Validation of data collection tool

For validation of pre test and post test, researcher took opinion from guide and other experts, which was already listed in Table 3.1. Researcher conducted a pilot study to make changes for improvement. For such pilot study researcher used same five XI th standard VI students which was already used for pilot study for improvement of data collection tool belongs to serve method.

3.6.8 Improvement in data collection tool

Researcher made changes in pre test and post test for improvement after pilot study was as follows:

1) In the beginning, fraction number are used to give marks but after it converted into integer number.
2) Complicated journal entry removed from both test.
3) Only 3 journal entries involved instead of 5.
4) Construction of small questions instead of questions in the form of fill in the blanks.
5) At first this test evaluated for 20 marks and 45 minutes but later it converted into 15 marks and 30 min.
6) Very simple and very hard questions had been removed.
3.6.9 Data Analysis tools for objective 3 to 6

Mean, Standard deviation and t test these tools are used for analysis of objective 3 to 6 details are given in chapter 4.

3.6.10 Details of Administration Activities

Administration of pre test, Administration of CMP and Administration of post test program were conducted in two centers, they were as follows

(a) Niwant Andh Mukta Vikasalaya
   Vidyanagar pune 32

(b) R. A. Podar college of Commerce and Economics
   Matunga Mumbai 19

Detail program was as follows:

Name of first centre ---- Niwant Andh Mukta Vikasalaya


The program had been conducted on above students for total 9 days and total time was 9 hours.
### Table 3.5 Administration Activity for Experiment in Niwant Pune

<table>
<thead>
<tr>
<th>Name of the Topic</th>
<th>Activity Conducted</th>
<th>Date of Activity Conducted</th>
<th>Max Time Required in Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Classification of Accounts</td>
<td>Pre test</td>
<td>8-1- 2014</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Orientation</td>
<td>8-1- 2014</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>CMP Treatment</td>
<td>9-1- 2014</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>10-1- 2014</td>
<td>30</td>
</tr>
<tr>
<td>2. Journal</td>
<td>Pre test</td>
<td>13-1- 2014</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Orientation</td>
<td>13-1- 2014</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>CMP Treatment</td>
<td>14-1- 2014</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>15-1- 2014</td>
<td>30</td>
</tr>
<tr>
<td>3. Ledger</td>
<td>Pre test</td>
<td>16-1- 2014</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Orientation</td>
<td>16-1- 2014</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>CMP Treatment</td>
<td>17-1- 2014</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>18-1- 2014</td>
<td>30</td>
</tr>
</tbody>
</table>

**Name of Second centre ------ R.A. Potdar College Mumbai**

The program had been conducted on above students for total 9 days and total time required was 9 hours. Following table represents the details of the program:

Table 3.6 Administration Activity for Experiment in R.A. Potdar College Mumbai

<table>
<thead>
<tr>
<th>Name of the Topic</th>
<th>Activity Conducted</th>
<th>Date of Activity Conducted</th>
<th>Max Time Required in Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Classification of Accounts</td>
<td>Pre test</td>
<td>3-2-2014</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Orientation</td>
<td>3-2-2014</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>CMP Treatment</td>
<td>4-2-2014</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>5-2-2014</td>
<td>30</td>
</tr>
<tr>
<td>2. Journal</td>
<td>Pre test</td>
<td>6-2-2014</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Orientation</td>
<td>6-2-2014</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>CMP Treatment</td>
<td>7-2-2014</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>8-2-2014</td>
<td>30</td>
</tr>
<tr>
<td>3. Ledger</td>
<td>Pre test</td>
<td>11-2-2014</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Orientation</td>
<td>11-2-2014</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>CMP Treatment</td>
<td>12-2-2014</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>13-2-2014</td>
<td>30</td>
</tr>
</tbody>
</table>
3.6.11. Evaluation of Accountancy Achievement Test

After implementation of CMP and administration of post test, answers were analyzed to draw the conclusion pre test and post test were evaluated as per evaluation scheme. (Ref Apendex - A) Model answer paper prepared by the researcher. (Ref Apendex – B)

3.6.12 Organization of Achievement score

The answers of each unit were analyzed and evaluated, marks obtained by students in pre test and post test for every unit Classification of Accounts, Journal, Ledger were assembled together for statically analysis. (Ref Apendex - F).

3.7 Administration of CMP Opinionnaire

After implementation of CMP and after administration of post test researcher conducted an opinionnaire to find out opinion towards developed CMP. By XI th standard VI students who was Informant. (Ref Apendex C – 3 ).

3.8 Internal and External Validity of this Research

Internal Validity: Once it has been determined that the two variables (A & B) are related, the next issue to be determined is one of causality. Does A cause B? If a study is lacking internal validity, one can not make cause and effect statements based on the research; the study would be descriptive but not causal. There are many potential threats to internal validity. For example, if a study has a pretest, an experimental treatment, and a follow-up post test, history is a threat to internal validity. If a difference is found between the pretest and post test, it might be due to the experimental treatment but it might also be due to any other event that subjects experienced between the two times of testing. (Gay L.R. 2006)
Table 3.7 Internal Validity Threat

<table>
<thead>
<tr>
<th>Threat</th>
<th>Description</th>
<th>Precaution taken by the Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>History</td>
<td>Effects on dependent variable while pre test and post test administered</td>
<td>Researcher completed his activity of pre test treatment of CMP post test, on same place same group continuously</td>
</tr>
<tr>
<td>Maturation</td>
<td>Changes occur in participant such as physical, emotional</td>
<td>Researcher completed his all objectives within one year</td>
</tr>
<tr>
<td>Testing</td>
<td>Pre test affected on post test</td>
<td>Pre test and post test is not exactly same</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>Lack of consistency in measuring instruments</td>
<td>Researcher conducted pilot study and taking guide’s opinion and expert opinion for modification of pre test and post test</td>
</tr>
<tr>
<td>Statistical Regression</td>
<td>Tendency of participants score</td>
<td>Evaluation of each test at last of the study</td>
</tr>
<tr>
<td>Differential selection of participants</td>
<td>Effect on dependent variable by control and experimental group</td>
<td>Not applicable for this study</td>
</tr>
</tbody>
</table>
External Validity: External validity addresses the issue of being able to generalize the results of the study to other times, places, and persons. For example, if researcher conducts a study looking at heart disease in men, can these results be generalized to women? Therefore, one needs to ask the following questions to determine if a threat to the external validity exists: "Would I find these same results with a difference sample? Would researcher got these same results if I conducted his study in a different setting and would researcher get these same results if he had conducted this study in the past or if he redo this study in the future, If researcher can not answer yes to each of these questions, then the external validity of this study is threatened.

<table>
<thead>
<tr>
<th>Morality</th>
<th>Changes between pre test and post test about high knowledge students</th>
<th>Whole students are VI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection Maturation instruments</td>
<td>Inter reaction between control group and experimental group</td>
<td>Not applicable for this Research study</td>
</tr>
</tbody>
</table>

**Table 3.8 External Validity Threat**

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Threat</th>
<th>Description</th>
<th>Precaution taken by the Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pre test Treatment Interaction</td>
<td>Influence of pre test on post test score</td>
<td>Researcher made changes in post test</td>
</tr>
<tr>
<td>2</td>
<td>Selection Treatment Interaction</td>
<td>Selection of population is based on availability hence affected on</td>
<td>Researcher conducted pilot study for treatment of CMP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>--------------------------</td>
<td>------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td><strong>findings</strong> and obtained opinion from guide and expert</td>
<td><strong>Researcher conducted treatment of CMP with proper focus</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td><strong>Multiple treatment Interference</strong></td>
<td>Effects of other Variables than Main treatment</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td><strong>Specify Variables</strong></td>
<td>Poorly operational of CMP by participants</td>
<td>Researcher given instruction at beginning about handling CMP</td>
</tr>
<tr>
<td>5</td>
<td><strong>Treatment Diffusion</strong></td>
<td>Communications between peer groups affected on results</td>
<td>Researcher provided separate CMP set for each candidate</td>
</tr>
<tr>
<td>6</td>
<td><strong>Experimental Effects</strong></td>
<td>Researcher’s influence on participants</td>
<td>Researcher made formal behaviour with participants</td>
</tr>
<tr>
<td>7</td>
<td><strong>Reactive Arrangement</strong></td>
<td>Feelings and attitudes are involved in study</td>
<td>Researcher conducted formal environment at the time of treatment CMP</td>
</tr>
</tbody>
</table>
Sammary and Discusscasion

In this chapter Researcher explained research methodology that was serve Method and its detail like data collection tool, data analysis tool, nature of informants etc. Further he explained about product Devlopment method, its therotical base, administration rule etc. and Experimental Method, its Tools, Design and administration detailsetc. Researcher also explained Internal and External Validity of this research.
“If you do not know how to ask the write question, you discover nothing.”

—W. Edwards Deming