

## **CHAPTER-III**

### **METHODOLOGY**

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#### **3.0. INTRODUCTION**

This chapter deals with the methodology of the present research work. The purpose of the present study is to investigate the Teaching Competencies of Economics Teachers of Higher Secondary Schools. The steps and techniques which were followed in conducting the research are presented in this chapter. It contains in detail the design, samples, procedure of collecting data and the plan of analysis of data. The focus of present study, is to identify expected teaching competencies and in practice of the Economics Teachers of standard XI of Anand District. To realize the objectives of this study quantitative and qualitative approach has been followed. The researcher has employed survey method.

The first phase of the study was the identification of expected Teaching Competencies of Economics teachers. For the identification of expected teaching competencies, data were gathered on four functional areas, namely, Planning, Presentation, Pupils' Participation and Evaluation from teachers, parents, students and through text book analysis. Data were gathered for the competencies in practice through observation by employing conceptual model and through views of students on the performance of the Economics teachers. The data gathered helped in identifying gaps between the teaching competencies Expected and Practiced by the teachers teaching Economics.

#### **3.1. TYPE OF THE STUDY**

Survey method has been employed for the present study.

#### **3.2. POPULATION FOR THE STUDY**

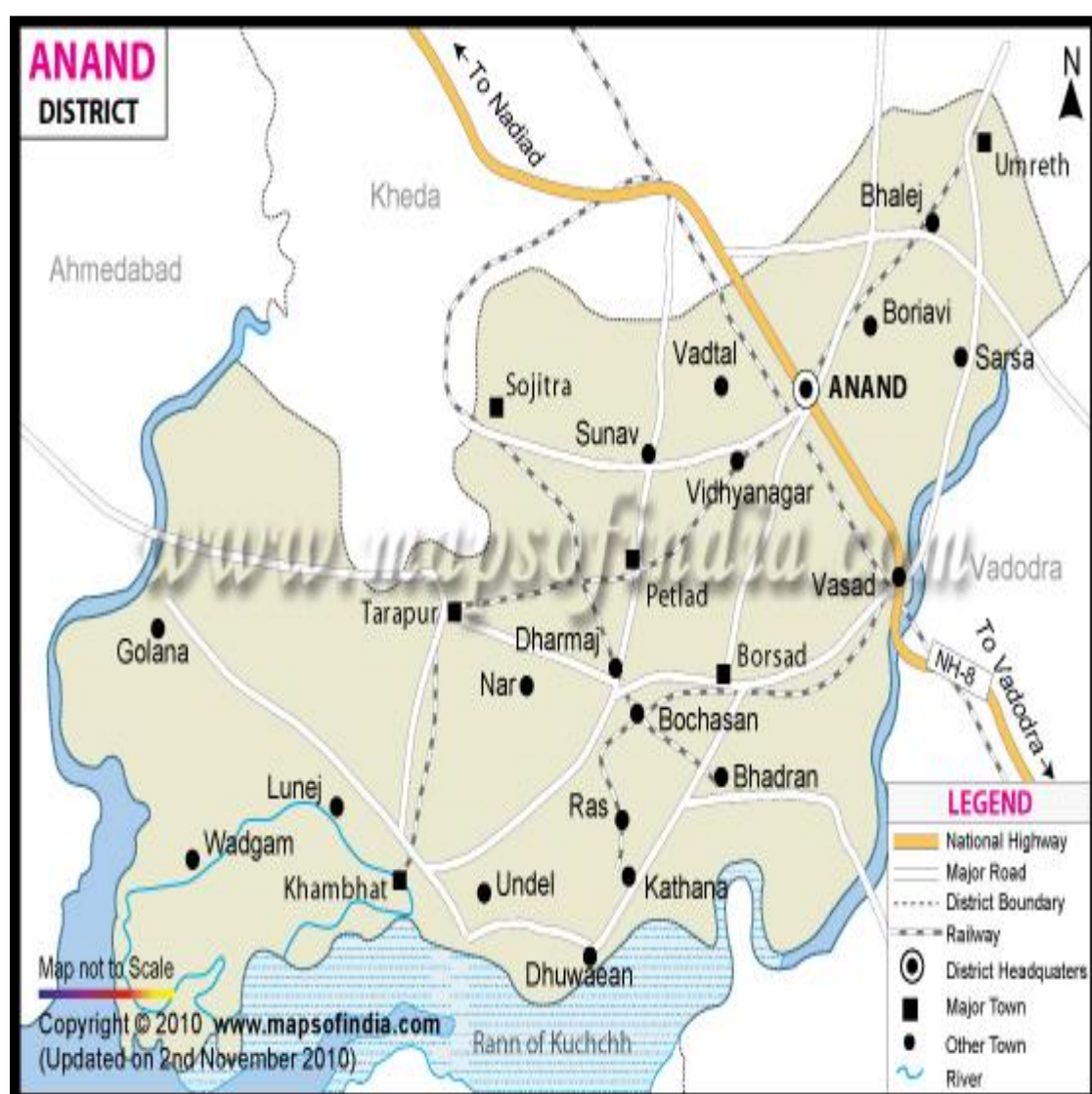
The population for the present study constituted of all the teachers teaching Economics at Higher Secondary level, Students and their parents of Anand

District for the calendar year 2012-13. There are 78 Higher Secondary Schools affiliated to Gujarat Secondary and Higher Secondary Board (GSHSEB) (General Stream) in Anand District.

### 3.3 SAMPLE FOR THE STUDY

The Sample for the present study was drawn by employing systematic random sampling technique as follows.

Out of these 78 GSHSEB Schools 50 schools are Grant-in aid and 28 schools are Non- grant aid in nature. 50% of these schools were selected. Thus 39 (Grant-in-aid 25+ Non Grant-in-aid 14) schools were selected.



Source: <http://www.mapsofindia.com/maps/gujarat/districts/anand.htm>

All the teachers teaching Economics subject in these schools were selected as a sample for the present study. Ten students were drawn from each class through systematic random sampling and their parents constituted the sample for the present study.

So the final sample for the present study was as follows:

**TABLE 3.1**  
**SAMPLE SIZE**

<b>Sample</b>	<b>Size</b>
Teachers	42
Students	720
Parents	43

### **3.4 TOOLS AND TECHNIQUES FOR DATA COLLECTION**

- To study Objective-1 tools, namely, perception scale for the teachers, content cum pedagogic analysis proforma, interview schedule for the parents, questionnaire for the identification of learning needs of the students were constructed by the investigator.
- To study Objective-2 tools, namely, conceptual model on the basis of inputs from the above four tools and questionnaire on Economics Teaching for the students were constructed.
- To study Objective-3 a list was prepared which shows Competencies Expected and in Practice.

**TABLE – 3.2**  
**SCHEMATIC PRESENTATION OF METHODOLOGICAL DETAILS**

<b>Sr. No.</b>	<b>Objectives</b>	<b>Tools used for data collection</b>	<b>Sources of data</b>
1.	To identify the teaching competencies expected among the teachers teaching Economics.	<ul style="list-style-type: none"> <li>➤ Perception Scale for Economics Teachers</li> <li>➤ Content cum pedagogic analysis proforma</li> <li>➤ Interview schedule</li> <li>➤ Questionnaire</li> </ul>	<ul style="list-style-type: none"> <li>➤ 42 higher secondary school teachers teaching Economics</li> <li>➤ Economics Text book of Std.XI</li> <li>➤ 43 Parents</li> <li>➤ 720 students studying Economics</li> </ul>
2.	To study the teaching competencies in practice among the teachers teaching Economics.	<ul style="list-style-type: none"> <li>➤ Conceptual model for Observation</li> <li>➤ Questionnaire</li> </ul>	<ul style="list-style-type: none"> <li>➤ 720 students studying Economics</li> </ul>
3.	To identify gaps between the teaching competencies Expected and Practiced by the teachers teaching Economics.	<ul style="list-style-type: none"> <li>➤ Tools mentioned against Sr.no.1 &amp; 2</li> </ul>	<ul style="list-style-type: none"> <li>➤ Sources of data as mentioned against Sr.no.1 &amp; 2</li> </ul>

### **3.4.1. Perception Scale For Economics Teachers (Appendix- I )**

This Perception Scale was constructed by the investigator herself. The studies conducted in the area of teaching competency so far, have looked into various dimensions, i.e. Planning, Presentation, Evaluation, Feedback, Training. A few attempts have been made so far to study the concept of teaching Competency in a comprehensive manner. The investigator, therefore, decided to study Teaching Competency of Economics Teachers in a comprehensive manner. To gather the perception of the Economics Teacher, the nature of the tool was planned to be having close ended questions, open ended questions and three point rating scale-‘most important’, ‘important’ and ‘least important’. The ‘most important’ competencies for the purpose of this study implied that without this competency a teacher could not be an effective teacher; an ‘important’ competency did contribute to the effectiveness of a teacher but its absence did not make the teacher ineffective; the ‘least important’ competencies neither increased nor decreased the effectiveness of the teachers. Three points Rating scale was constructed keeping in mind four functional areas, namely, Planning, Presentation, Pupils’ Participation and Evaluation. The instrument also consists of six open ended questions framed on Economics Education practicality, activities to make theories of Economics well applicable, way of relating subject with present social situations, international outlook of students, salient features of Economics teaching and developing Economic Literacy of students. Close ended questions were framed on required abilities, facilities, skills, competencies development with respect to Economics Subject. Twenty three Competencies and sub-competencies were covered in this perception scale. List of competencies and sub-competencies is as follows:

**TABLE 3.3**  
**LIST OF COMPETENCIES & SUB-COMPETENCIES**

<b>Sr. No.</b>	<b>Competency</b>	<b>Number of sub-competencies</b>
1	Organizing Subject Content	2
2	Organizing Content	3
3	Deciding Instructional Objectives	8
4	Classifying Objectives according to domains	3
5	Selecting appropriate teaching Methods	3
6	Choosing Teaching aids	4
7	Introducing Lesson and Sustaining Attention	3
8	Using methods in teaching Economics	5
9	Effective Explanation of concepts and principles	6
10	Asking Questions	6
11	Increasing pupils' participation	3
12	Using chalk board	3
13	Organizing and supervising field trips	4
14	Giving Home work and Assignments	5
15	Maintaining Classroom Discipline	5
16	Closing the Lesson	1
17	Developing Students' Interest in Economics	3
18	Developing Students' Attitude in Economics	3
19	Developing Students' Values towards Economics	4
20	Developing different types of test items	3
21	Classifying test items into domains	3
22	Preparing Results	5
23	Using Results	4

The Perception Scale developed was given to the experts for validation. Their suggestions have been incorporated.

### **3.4.2. Content cum Pedagogic Analysis Performa (Appendix- II )**

Several sources and approaches have been used by researchers to identify the competencies of a teacher. Some of the sources mentioned are research evidence, predetermined lists, course translation, analysis of theory and teaching models, task analysis, professional judgement and input from pupil and the community (In Bawane, 1999).

Out of the above mentioned sources, content cum pedagogic analysis of Std. XI Economics Text book was considered appropriate for the present study to arrive at a comprehensive list of 'Expected Competencies' of Teaching Economics.

From the various definition of competency it is found that although, knowledge competencies form a basis to teacher effectiveness; ultimately teachers are required to be skilled. In other words, the performance on any competency is itself the manifestation of the knowledge and attitudinal competencies. Further, this also implies that competencies performed are required to be demonstrable and assessable.

Criteria selected to define the term competency in the present study are:

- It comprises of more than one skill.
- It can be observed while being performed.
- It can be assessed.

#### **Criteria of Content cum Pedagogic Analysis**

The analysis was carried out chapter wise, wherein from the content of each chapter, appropriateness of the text content was identified. After analysis of the content of Economics text, the various expected teaching competencies were identified lesson-wise. The criteria for the analysis of content are as follows:

- Lesson format
- Content relevance
- Continuity in presentation
- Language expression
- Illustration related to textual content
- Adequacy of illustration
- Contextuality of questions asked while developing the content

- Appropriateness of level of questions/suitability of activities given at the end of lesson
- Expected teaching competency

On examination of the competencies within each chapter, in the textbook, it was found that certain competencies have recurred. Hence, to arrive at a single comprehensive list of competencies, the competency that appeared more than once was considered only once. Thereby, the final outcome after this stage of analysis was a single list of competencies arrived at from the Std. XI. Economics Textbook. The lists of competencies identified from this source have been presented in the next chapter.

### **3.4.3. Interview Schedule For the Parents (Appendix- III)**

A semi-structured interview schedule was prepared to gather data regarding the views of the Parents about Economics Subject and subject teacher's behavior related to it. The interview centre around 19 main questions closely related to the expected behavior of Economics teachers while teaching Economics. These questions sought to know:

- Sources of income;
- Problems faced due to price hike;
- How knowledge of Economics is helpful;
- Responsibilities assigned to the child;
- Guidance to the child while assigning transactional activity of Economics;
- Preparing the child for understanding economical problems;
- Knowledge of Economics for handling Economic crisis;
- Reasons of studying Economics;
- Qualities required of an Economics Teacher;
- Ways of increasing Economical understanding;
- Preparation of the student for a profession;
- Bases of Economics Teaching;
- Efforts made for the optimum utilization of resources;
- Provision for strong base of Economics for life;



- Competencies developed among the students studying Economics;
- The context of changing market conditions;
- Shaping behavior of students as good decision maker;
- Development of Economic skills among the students;
- Preparation of the students for survival;

The investigator framed first two questions to build a rapport with the Parents. Twelve questions focused on the theme. Thus, qualitative data were gathered from 43 Parents on parents meeting day at schools.

Semi-structured interview schedule was given to the Experts for validation. The suggestions given by them were incorporated.

#### **3.4.4. Questionnaire for the Identification of learning needs of the Students (Appendix- IV)**

This instrument was constructed by the investigator herself. For construction intensive reading of the literature related to Teaching and Learning Economics was done. A few students learning Economics were consulted for the purpose of gathering information regarding Economics class communications. This information included presentation, evaluation and problems faced by them in the subject of Economics. On the basis of this information, a Questionnaire was constructed for identifying needs of Std. XI. Students with respect to Economics learning. This questionnaire covered open ended and close ended questions related to essential behaviours of Economics Teachers, presentation of the content by the teacher, teaching aids, resources, materials and prompts, activities assigned by the teacher, feedback and evaluation by the teacher, difficulties and ways to overcome, motivating factors, skill development, and guidance by the teachers.

In the questionnaire alternatives were given for each close ended question and the respondent students were expected to give preference to the alternatives provided to them for each question. Their ranking of these alternatives would reveal how they expected learning of Economics. For open ended question the Economics students were expected to write responses openly.

The questionnaire constructed was given to the experts for validation.

Hence, first preference on the alternatives given for each close ended question and repeated responses by the students on open ended question were considered as the most expected learning needs of Economics students.

### **3.4.5. Conceptual Model (Appendix-V )**

A Conceptual Model was constructed on the basis of inputs from the above mentioned four tools viz., Perception Scale of Teachers, Content cum Pedagogic Analysis, interview with Parents and Questionnaire for the Identification of Learning Needs of the Students.

- ✓ For the identification of expected teaching competencies from the perception scale of teachers, most important responses and important responses category on each the competency were considered as most expected competency for teaching Economics. Perceptions of teachers on open ended questions, repetition of same responses perceived by the teachers was considered as most important behavior for teaching Economics and include in the Conceptual Model.
- ✓ Expected Teaching competencies identified by the investigator through content cum pedagogic analysis were also considered as essential Competencies of teaching Economics. It was given place in the Conceptual Model.
- ✓ For the identification of expected teaching competencies from the views of Parents on close ended items, 60% and more than 60% responses on each behaviour was considered as most expected behavior for teaching Economics. Views of Parents on open ended questions, repetition of same responses viewed by the parents was taken as most important behavior for teaching Economics. These responses are included in the Conceptual Model.
- ✓ For identification of the expected learning needs of Economics students, First preference on the alternatives given for each close ended question and same repeated responses by the students on open ended question was considered as the most expected learning needs of Economics students. Therefore, it was placed in the Conceptual Model.

All the identified most expected Teaching Competencies and sub-competencies were listed and a Conceptual Model was constructed by the investigator. Twenty two competencies and sub-competencies are presented in this Model.

**TABLE 3.4**  
**LIST OF COMPETENCIES & SUB-COMPETENCIES**

<b>Competency</b>	<b>Number of sub-competencies</b>
Delineating Instructional Objectives	3
Content Development & Organisation	1
Selecting appropriate Teaching Methods	1
Choosing Teaching aids	1
Introducing Lesson and Sustaining Attention	1
Employing variety of methods in Teaching Economics	8
Effective Explanation of concepts & principles	9
Asking Questions	4
Utilizing Facilities Effectively	3
Utilizing Skills effectively	14
Increasing pupils' participation	10
Using chalk board	2
Organizing and supervising field trips	3
Home Assignments	7
Observing Classroom Discipline	4
Closing the Lesson	1
Developing Students' Interest in Economics	11
Developing Students' Attitude in Economics	5
Developing Students' Values towards Economics	5
Developing different types of test items and Classifying domain wise	6
Preparing Results	5
Feedback on Results & follow up	4

### 3.4.6. Questionnaire On Economics Teaching for Students (Appendix-VI)

For the preparation of questionnaire for Economics students- the investigator followed steps given by Mouly (1970). The **first step** in the preparation of questionnaire is to attain a through grasp of teaching learning process of the school, objectives of the study and the nature of the data required. In present study the investigator examined some books of teaching of Economics and related articles to have in-depth knowledge of the area. The investigator has gone through the review of related literature, which reflected that there were some questions which can help the investigator to form a new one. Bhatia (2008) and Jadav (2004) had made questionnaire for collecting data from commerce and physics subject students, respectively. There were some other tools which covered the topic of the research and a few questionnaires from which the investigator took help to form new ones.

**Second step** in preparation of a questionnaire followed was school visit. Here, the investigator, having some ideas in mind met a group of students and discussed with them about the Economics classes. The investigator note down the important points on Economics class related matters and their problems.

**In the third step** the investigator prepared outlines of the questionnaire. Questions on sub area were grouped and finally under the caption of five components twenty-one questions were put.

These areas were regarding (i) Follow up of work (ii) Presentation (iii) Difficulty, solution and examination (iv) Guidance (v) Field work and field experiences.

**TABLE 3.5**  
**AREAS COVERED IN QUESTIONNAIRE**

<b>Sr. No.</b>	<b>Component</b>	<b>Total Ques. Closed</b>
I	Follow up of work	01
II	Presentation	14
III	Difficulty, solution and examination	03
IV	Guidance	01
V	field work and field experiences	02

**In the sixth step** developed tool was sent to the subject experts for validation and the suggestions given by them were incorporated.

### **3.5. DATA COLLECTION**

The data for the present study were collected in two phases:

**PHASE- I: In this phase, data regarding Expected Teaching Competency were collected.**

- The perception scale was distributed to 42 Economics Subject Teachers of 39 sample schools. They were asked to give their responses.
- Data from the text book of Std. XI. were gathered through Content cum Pedagogic analysis by the investigator herself.
- 10 students in each class were taken and asked to give their responses regarding their learning needs of Economics.
- 43 parents were interviewed during parents meeting at schools for getting their views on Economics subject & subject teaching.

**PHASE- II: In this phase, data regarding Competency in Practice were collected.**

- 02 periods of every Economics Teachers (total  $2 \times 42 = 84$  lessons) were observed by the investigator employing Conceptual Model.
- Data from 720 students were gathered on the performance of Economics teachers. They were asked to give their responses on close ended and open ended questions.

### **3.6. DATA ANALYSIS TECHNIQUE EMPLOYED**

Data were analyzed by applying different methods. The data collected through close ended questionnaire were analyzed through frequency and percentage. The data collected through open ended questionnaire, text book of Std. XI, and Interview were analyzed through content analysis. Some of the data of interview were also analyzed with the help of frequency and percentage.