CHAPTER - IV

RESEARCH METHODOLOGY AND PROCEDURE

4.0 Introduction

“All research is born of inquiry. Doubt is often better than overconfidence, for it leads to inquiry and inquiry leads to invention” is a famous Hudson Maxim in the context of which the significance of research can be well understood.

Qualitative approach to research is concerned with assessment of attitudes, opinions and behaviour. Such an approach to research generates results either in a non-quantitative form or in a form that is not subjected to rigorous quantitative analysis.

4.1 Research Methodology

Beyond purpose and paradigm stance, discussion on research methodology involves an iterative negotiation of micro and macro lenses, perhaps best accomplished by grounding this process in the various constructs or variables to be assessed in the inquiry.

Physical phenomena are numerical and quantitative. On the other hand, social phenomena are abstract or qualitative. Qualitative phenomena, in their turn, are ambiguous and complex. Most of the information in the behavioural science including social psychology and education is in the form of verbal and other symbolic behaviour. The verbal data gathered through questionnaire, observation or interviews are mostly qualitative in nature.
Other various sources of data are records, reports, periodicals, letters, autobiographies and books. When using these documentary sources one must bear in mind that data appearing in print are not necessarily trustworthy. In order to achieve results from facts gathered through survey, documents and other methods, several techniques are utilized. Discourse analysis, content analysis, conversational analysis, critical theory, protocol analysis are some among them.

The life history, life story, biographical method present the experiences and definitions held by one person, one group or organisation as this person, group or organisation interprets those experiences. There are three basic forms of life history: (1) complete  (2) topical and (3) edited life history. All these forms, however, contain three central features: the person’s own story of his life, the social and cultural situation to which the subject responds and situations the subject encounters in one’s life.

**Following are the details about forms and varieties of Biographical Method.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Term / Method</th>
<th>Key Features</th>
<th>Forms / Variations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>History</td>
<td>What happened? How?</td>
<td>Oral, life personal story</td>
</tr>
<tr>
<td>2</td>
<td>Biography</td>
<td>History of a life</td>
<td>Autobiography</td>
</tr>
<tr>
<td>3</td>
<td>Narrative</td>
<td>A story having a plot and existence independent of the teller</td>
<td>Fiction, epic, folklore</td>
</tr>
<tr>
<td>4</td>
<td>Life History</td>
<td>Account of a life based on interviews and conversations</td>
<td>Personal history: edited complete, topical</td>
</tr>
<tr>
<td>5</td>
<td>Case History</td>
<td>History of an event or social process, not of a person</td>
<td>Single, multiple, medical, legal</td>
</tr>
<tr>
<td>6</td>
<td>Case Study</td>
<td>Analysis and record of a single case</td>
<td>Single, multiple</td>
</tr>
<tr>
<td>7</td>
<td>Oral History</td>
<td>Recollections of events, their causes and effects</td>
<td>Work, musical, family</td>
</tr>
</tbody>
</table>
Biographical analysis is an interpretive research approach to understand how individuals take part in social contexts and make a sense of them. In biographical analysis, there is no pre-selection of what would be ‘relevant’ categories. Instead, while proceeding sequentially in analysis, emergence of new terms of sociological understanding is allowed.

As a researcher in a qualitative – interpretive tradition, one is open to the findings which the analysis generates. Therefore, this being an inquiry – focused research, it begins without prior assumptions. With every development, the researcher is required to modify, even challenge, one’s ideas, beliefs and assumptions, if any. Therefore, this research study has not been undertaken with any pre-conceived hypothesis. Nevertheless attempts have been made to address some research questions.

The guiding feature of biographical research is that it attempts to suit its method to its purpose. Biographical research has both general and specific purposes. The general purpose is to provide greater insights into the nature and meaning of individual lives or groups of lives. Given that individual lives are part of a cultural network, information gained through biographical research will relate to an understanding of the wider society. The specific purpose of the research will be analysis of a particular life or lives for some designated reason – for example, in examining the world of work it may be appropriate to look at the biographical routes by which a given individual becomes a teacher, actor, doctor, leader etc. Under the circumstance of the research enterprise, such a piece of research may be small scale or large scale. What is at issue is not the scale of research but the purpose for which it is required.
In case of human beings, it is the wide range of subjective life of mental and imaginative behaviours which intervene between stimulus and response, which makes human behaviours fundamentally different from that of lower animals. It is this which makes human behaviour so problematic and so difficult to understand. It is the purpose of the life history to get a record of this inner life.

As a number of methodologists have commented (e.g. Erickson, 1986, Woolcott 1992) too concentrated focus on research techniques can dull the understanding of the relationship between method and the purpose of investigation.

The selected autobiographies and biographies have been studied using Content Analysis. Content Analysis is a research tool used to determine the presence of certain words or concepts within the texts or set of texts. Researchers analyse the presence, meaning and relationship of such words and concepts and then make inference about the message within the text of which writers, the audience and even the culture and time are a part.

For the present study the **Content Analysis Method** has been adopted.

### 4.2 Content Analysis

**Berelson (1952)**: “Content analysis is a research technique for the objective, systematic and quantitative description of the manifest content of the communication”. There are two types of content analysis.

(1) Conceptual Analysis (2) Relational Analysis
Conceptual Analysis

In conceptual analysis, a concept is chosen for examination and the analysis involves quantifying and tallying its presence. It is also known as thematic analysis. The focus here is on looking at the occurrence of selected items within a text or texts although the terms may be implicit as well as explicit. While explicit terms obviously are easy to identify, coding of implicit terms and deciding their level of implication is complicated by the need for base judgment on somewhat a subjective system. Coding implicit terms usually involves use of either a specialized dictionary or contextual translation rule. Sometimes both the tools are used.

Relational Analysis

Relational analysis begins with the act of identifying concepts present in a given text or set of texts. However, relational analysis seeks to go beyond presence by exploring the relationship between the concepts identified. It is also termed as Semantic Analysis. The focus of relational analysis is to look for semantic or meaningful relationship. Individual concepts in and of themselves are viewed as having no inherent meaning. Rather meaning is a product of relationship among concepts in a text.

4.3 Main Steps in Content Analysis

4.3.1 Defining the unit of analysis

The unit (material) may be confined to single words, phrases or complex sentences. Only those facts should be mentioned which are useful in solving the
problem. The units can be considered as the entity whose specified characteristics can be determined and analyzed.

4.3.2. Specifying variables and categories

Once the unit is defined, the researcher conducts its analysis so as to create reproducible or objective data for scientific treatment and generalization beyond the specific set of symbolic material analyzed. For converting symbolic material into objective data it is necessary to specify the variables explicitly. There is a need for framing explicit rules specifying what features of the content are to be taken as indication that it falls in one category rather than the other.

4.3.3. Frequency, direction and intensity

Once the unit is defined and the variables along with their categories to be employed specified, the analysis will classify units in the material to be analyzed according to frequency, direction and intensity. Frequency analysis merely counts the number of units which fall into each category. For instance, in the analysis of a public speech by an economist, the number of times ‘privatisation of higher education’ may be employed as an argument for a certain policy of government. In this case ‘argument’ is taken as a recording unit or enumeration unit. Direction refers to whether the reference was favourable, unfavourable, or neutral. It might be pleasant, unpleasant, interesting, uninteresting. For example, an analyst analyses an editorial on ‘privatisation of higher education’, he counts the number of columns or inches of the whole editorial. Intensity indicates the emotional impact of the unit analysed.
4.3.4. Contingency analysis

Contingency analysis aims at considering the content within which the unit is found. A researcher should consider the favourableness or unfavourableness of a single unit in the light of the remainder of the communication so that its real meaning might not be lost.

4.3.5. Sampling

One of the major practical problems in content analysis is sampling. The unit which the researcher analyses should be representative of the total material. It will depend on the purpose of the investigation. For example, the objective is to compare the editorial content of ‘The Times of India’ against some established standard norms, the universe under consideration should be all editorial content appearing in all the issues of ‘The Times of India’ over a certain period of time. After specialization of the universe proper procedures for drawing a representative sample of that universe must be employed.

4.3.6. The recording instrument

A form is usually used in content analysis for classifying and recording the unit. The recorder should use the form carefully in order to get reliable and valid data. He should clearly indicate the categories and make provision for making the category into which each unit falls.

4.3.7. Issues of reliability, validity and generalisation

Reliability of a content analysis study refers to its stability or the tendency of coders to consistently recode the same data in the same way over a period of time,
reproducibility or the tendency for a group of coders to classify category membership in the same way.

Each survey gathers data to a limited extent and general conclusions are drawn on its basis. Then the problem arises whether the conclusions deduced from the collected data are acceptable as general conclusion.

In order to arrive at results from the collected data it is necessary to classify it. Content analysis is the reduction of data into categories.

It is a research tool used to determine the presence of certain words or concepts within the texts or set of texts. Researches analyse the presence, meaning and relationship of such words and concepts and then make inference about the message within the text, writers, the audience and even the culture and the time of which these are a part.

Here ‘text’ means books, book chapters, essays, interviews, discussions, newspaper headlines, articles, historical documents, speeches, conversation, advertising, theatre, informal conversation or real occurrence of communicative language.

To conduct a content analysis on any such text, the text is coded or broken down into manageable categories on a variety of levels: word, word sentence, phrase, theme and then examined using one of content analysis basic method, conceptual analysis or relational analysis. This will help us to reduce the data into manageable categories on information.
4.4 Utility of Content Analysis

There are so many uses for content analysis in various fields. Here the educational purposes and historical research purposes are mentioned.

4.4.1 Making qualitative studies objective

Social phenomena are qualitative in nature. Analysis helps in making qualitative studies objective and scientific. In content analysis, qualitative facts are classified, codified and made worthy of tabulation. Tables, graphs and charts help in making qualitative phenomena quantitative and numerical.

4.4.2 To discover the level of difficulty of presentation in a text book or in any other publication

This is often used in text book analysis. We are analyzing the data for discovering the difficulty level of data presentation. This may lead to text book revision. Here we are critically analyzing the content of the text book. The analysis can be divided into two parts: external appearance and internal aspects. In external appearance the size of the book, layout, printing techniques used etc. are analyzed. Internal aspect is important as well. As the book is divided into various chapters they are analyzed one by one. How are they arranged? Then the contents of the book or chapters are divided into categories. As an illustration, in case of a textbook for English, it contains poems, prose passages, autobiographies, stories etc. When transacting a lesson we use this to teach grammar, vocabulary, type of sentence etc. By content analysis it can be checked. It is also analysed if there is any chance to remember the words already learned in the previous class. The type of lessons included, number of pages, language aspects, transaction of hidden curriculum are also analyzed.
4.4.3 In Curriculum

Content analysis can be used to develop and modify school curriculum at various levels. Teachers too often experience that the school curriculum is not specifically defined and it does not satisfy the set of goals or objectives. Curriculum research can be conducted through content analysis of text book, reference books and other written material. Here for curriculum revision, the contents of the following materials are analysed

- the text book
- handbooks provided to teachers
- supplementary reading materials
- methods of teaching
- integration of subjects
- co-curricular activities
- utility of the curriculum
- comprehensiveness of the curriculum

4.4.4 Evaluation

Another important use of content analysis is in the field of evaluation. It helps the teacher to know whether the objectives have been met by the curriculum. For this he has to develop tests or make use of readymade standardized tests. These tests are constructed after critically analyzing the content area that is taught. If the teacher has to develop his own test, he has to spend a great deal of money and effort. So he can make use of standardized tests. To determine the extent to which a particular
readymade standardized test is appropriate it is essential that the test must be content analysed by some means. The text item can be compared to the objectives and desired outcomes of the curriculum and the magnitude of the agreement can be established.

4.4.5 Comprehension level of the students

It is essential for a teacher to ascertain that the study material used in the textbooks is within the comprehension levels of the students. When implementing a new textbook, we try to find out/verify if the material and lessons of the textbook are appropriate to the comprehension level of the students. Teachers normally have an awareness about the comprehension level of their students. In any case, informal content analysis of the textbook is carried out by all teachers.

4.4.6 To evaluate bias, prejudice or propaganda in text book presentation

Text books may contain bias and particularly in the case of humanity subjects. In history, for instance, there may be different perceptions of different historians. So content analysis helps check the bias. The 1857 mutiny presented in the high school history books is a case.

Some content may be forced into the text book as part of propaganda. Content analysis compares different means of propaganda and finds out their relative influence.

4.4.7 To analyze type of errors in students’ work

We can notice that there are some common errors usually committed by students. It may be because of the conceptual mistakes or misunderstanding arising out of the textbooks or from the instructional strategies used by the teacher. Whatever may be the cause, we need to root them out. To detect such errors we can
use content analysis. Here notebooks of students or answer sheets of examinations are analysed. Then remedial measures are suggested.

4.4.8. To discover the relative importance of or interest in certain topic or problems

Content analysis can be used to show the relative importance of a problem or to show the interest in a certain topic. Example: the issue of self-financing colleges in Kerala as measured by the newspaper coverage in three leading daily newspapers during the month of July 2006.

Following are some other purposes of content analysis related with historical research.

4.4.9 To analyze the use of symbols representing persons, political practices or institutions, countries or point of view.

Example: EMS as the symbol as represented by newspapers cartoons in the decade 1980-90.

4.4.10 To identify the literary style, concepts or beliefs of a writer

Example: Shakespeare’s use of metaphors, Women in the dramas of Vijay Tendulkar, John Dewey’s interpretation of education as growth

4.5 Advantages and Limitations of Content Analysis

Content analysis has its own strengths and weaknesses. So, one should be careful in using it as a research technique.
4.5.1 Advantages of Content Analysis

- Looks directly at communication via texts or transcripts and hence gets at the centre of social interaction,
- Can allow for both quantitative and qualitative operations,
- Can provide valuable historical / cultural insights over time through analysis of text,
- Can be used to interpret texts for a purpose such as the development of expert systems,
- Provides insights into complex models of human thought and language use,
- When done well it is considered as a reality ‘exact’ research method.

4.5.2 Limitations of Content Analysis

- Can be extremely time consuming
- Is likely to increase error, particularly when relational analysis is used to attain a higher level of interpretation
- Tends too often to simply consist of word counts
- Can be difficult to automate or computerize

To sum up, content analysis is a powerful data reduction technique. Its major benefits come from the fact that it is a systematically replicable technique for compressing many words of the text into fewer content categories based on explicit rules of coding. It has the attractive features of being useful in dealing with large volumes of data. The technique of content analysis extends far beyond simple word
frequency counts. Two fatal flaws that destroy the utility of a content analysis are faulty definitions for categories and non-mutually exclusive and exhaustive categories.

4.6 Context Analysis Design for the Present Study

For deriving leadership qualities from the auto/biographies of selected leaders, the researcher adopted the above quoted Content Analysis Method. Categorising and evaluation of the textual and contextual data through consideration of certain rules are devised in this model.

The steps of this model are as follows.

4.6.1 Understanding the Theories of Leadership

Leadership is a topic with universal appeal, and in the popular press and academic research literature much has been written about leadership.

Despite the abundance of writing on the topic, leadership has presented a major challenge to practitioners and researchers interested in understanding the nature of leadership.

For understanding the auto/biographies of the selected leaders and deriving leadership qualities, various theories of leadership were intensively read, leading to pondering over major features, strengths and weaknesses of each theory. Apart from this, various research studies applicable to each approach were also reviewed. While reading each leadership theory, special attention was given to how the approach contributes or fails to contribute to an overall understanding of the leadership process.
It helped the researchers to understand how a theory can inform and guide the practice of leadership. The reading of various theories helped the researcher to acquire an in-depth understanding of each leadership theory and how it applies to real life situations.

4.6.2. Primary Reading of the Text

The primary reading of the selected texts only gave a general overview of the ideas and major themes involved in the texts. The researcher went through the auto/biographies of selected leaders once again. Various events were marked discovering the main ideas for further interpretations.

4.6.3. Selecting the Content Categories

The primary reading of the text helped the researcher to note down some of the important leadership qualities that were exclusive of the leaders under study. Content categories can be defined as compartments or 'pigeon holes' with explicitly stated boundaries into which the units of content are coded for analysis. They, in fact, flow from the research questions and should be anchored in a review of relevant literature and related studies. Content categories are constructed in response to the query: what classification would most efficiently yield the data needed to answer the research questions raised?

Developing the category system to classify the body of the text is the heart of content analysis. Berelson (1952:147) rightly points out "Content Analysis stands or falls by its categories. Particular studies have been productive to the extent that the categories were clearly formulated and well adapted to the problem and the content."
Here, for the present study, the first step in category construction was preliminary reading of the selected auto/biographies and noting down some of the important leadership qualities that were exclusive of the leaders under study.

4.6.4. Determining the Form of Idea Units

The researcher read the auto/biographies of the selected leaders twice to properly understand various events that marked their leadership development as well as to find out striking qualities that placed these people in the category of renowned leaders.

An idea unit is a set of words having a meaningful comprehensibility. An idea unit can be in the form of a sentence, a set of sentences or a paragraph. The researcher discovered and picked up certain set of words and classified them under different leadership qualities. Before determining the idea units, the researcher read the set of words/ statements carefully to properly classify them under the leadership qualities. Then the researcher decided to have certain statements as forms of idea units in the present study.

4.6.5. Deriving Key Words

Deriving key words is the first step in interpretation of the data. After considering the statements and events carefully key words were derived from the texts. The key words reflect the essence of the idea unit. The key words thus derived show the aspects and varied dimensions of leadership qualities.
4.6.6. Consulting Reference Material

For understanding the selected leaders under study, the researcher referred to several sources and reference materials which helped her in understanding the qualities better. These included certain books written by the selected leaders themselves as well as the books written on them by others. Certain online resources were also referred to in order to get information about their profile.

4.6.7. Sequencing and Tabulating

For sequencing and tabulating the idea units, a concept map of each leadership quality is given in detail. The concept map of each leadership quality helps to define the given leadership quality. It enhances the clarity of words, phrases and statements related with the given leadership quality. Idea units sequencing and key words derived from the texts were categorized as under.

Table: A Concept map of leadership quality (Example: Determination)

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement/ Words</th>
<th>Key words</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6.8. Writing Interpretations and Inferences

The researcher identified leadership qualities, classified them, determined the idea-units and derived the key-words for interpretation. Thereafter, with the help of the key-words, events, ideas, thoughts and reactions of the selected leaders under study were interpreted.
4.6.9 Provision For Testing Credibility

<table>
<thead>
<tr>
<th>Quality Criterion</th>
<th>Provision made by the researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credibility</td>
<td>Adoption of appropriate, well recognized research methods</td>
</tr>
<tr>
<td></td>
<td>Iterative questioning in data collection dialogues</td>
</tr>
<tr>
<td></td>
<td>Debriefing sessions between the researcher and senior scholars and experts</td>
</tr>
<tr>
<td></td>
<td>Use of Reflective commentary</td>
</tr>
</tbody>
</table>

The above quoted provision was made by the researcher to establish credibility and enhance confidence that she had accurately recorded the phenomena under scrutiny.

4.6.9.1 Adoption of appropriate research methods well established both in qualitative investigation in general, and in leadership research in particular, was done. As the present study includes qualitative analyses, content analysis method was adopted for analyzing the texts.

4.6.9.2 Iterative questioning helped the researcher to return to the matters that had emerged earlier through analysis and extract related data through rephrased questions.

4.6.9.3 Frequent debriefing sessions were arranged between the researcher and her guide and some senior colleagues. Through these discussions, the investigator
developed an in-depth understanding as other experts in the field brought to bear their experiences and perceptions. Such collaborative sessions were used by the researcher to discuss alternative approaches. Others who are responsible for the work in a more supervisory capacity drew attention to flaws in the proposed course of action. The meeting also provided a sounding board for the investigator to test her still developing ideas and interpretations. Probing from experts helped the researcher to recognize her own biases and preferences.

4.6.9.4 Researcher's ‘Reflective Commentary’

In addition to the outside scrutiny discussed above, the investigator sought to evaluate the project again as it developed. Reflective Commentary was used to record the researcher's initial impressions of each data collection sessions and to record patterns appearing in the data collected and theories generated. The commentary played a key role in what Guba and Lincoln term ‘Progressive subjectivity’ or the monitoring of the researcher's own developing constructions, which the writers consider critical in establishing credibility.

4.7 Source of Data

The researcher went through several auto/biographies of world's eminent leaders. Reading of several auto/biographies prepared the backdrop for the present study. The initial search and reading of auto/biographies of leaders from diverse walks of life helped the researcher to locate the source of data for the present study.

4.8 Selection of Data

After the initial reading of auto/biographies of leaders, four auto/biographies of renowned personalities were selected. They are as under.
➢ **I too had a dream** by Dr. Verghese Kurien

➢ **Wings of Fire** by Dr. APJ Abdul Kalam

➢ **Indira Gandhi** by Inder Malhotra

➢ **Mother Teresa: A Complete Authorised Biography** by Kathryn Spink

The leaders’ auto/biographies were selected keeping in mind the field of their contribution. Life stories of Dr. Verghese Kurien, a man of co-operative industry, Dr. APJ Abdul Kalam, a scientist, Mrs. Indira Gandhi, a strategic statesperson and Mother Teresa a social reformer were selected. Gender bias was neutralized by selecting an equal number of male and female leaders.

4.9 Collection of Data

The researcher, while intensively reading the auto/biographies of selected leaders, marked the major events from their life, showing emergence of leadership qualities.

Furthermore, certain core statements/words were also identified as idea units, expressing the thoughts, actions, reactions and ideas of the leaders under study.

4.10 Analysis and Interpretation of Data

To derive leadership development, chapter-wise analysis of each text was carried out and important events in development of leadership were extracted. While analyzing the four texts, a bimodal analytical view was adopted. This bimodal analytical view is (1) Event Analysis and (2) Idea Analysis

4.10.1 Event Analysis

Each selected leader under study had faced different situations and accomplished huge tasks successfully which helped them to emerge as renowned
leaders. Keeping this in mind, major events from each text were selected and analysed to arrive at leadership development of the leaders. Furthermore, their educational implications have also been arrived at. Event analysis was done by observing the following points.

- **Event**: It states the contribution of the event in leadership development. It presents the kernel role of the event in molding leadership personality.

- **Situation**: It refers to the context of the whole event in the story. It provides the background in which the event takes place.

- **Expressions/phrases Showing Emergence of Leadership**: These are lists of various words/ statements peculiar to the event described. This is helpful in understanding the belief, perceptions, behaviour of the leaders under study.

- **Association with a Leadership Theory**: This places and comments on the leadership style/behavior of the leaders under study against the established theories. The attempt is to analyse leadership style of the leaders under study with reference to prominent leadership theories.

### 4.10.2 Idea Analysis

In the present study, leadership traits are taken as idea groups. For Idea Analysis the following steps were followed:

1. Preparing the concept map of the leadership traits derived.

2. Deriving statements/sentences showing emergence of leadership traits from the texts

3. Combining and putting the derived statements/sentences under the category of the leadership trait to which they belong
4. Explanation of the statements/sentences with reference to the text

5. Arriving at educational implications.

For idea analysis, a tabulated form is used and in the report the following abbreviations are used.

<table>
<thead>
<tr>
<th>Source</th>
<th>Abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>I too had a dream</em> by Dr. Verghese Kurien</td>
<td>ITHD</td>
</tr>
<tr>
<td><em>Wings of Fire</em> by Dr. APJ Abdul Kalam</td>
<td>WOF</td>
</tr>
<tr>
<td><em>Indira Gandhi</em> by Inder Malhotra</td>
<td>IG</td>
</tr>
<tr>
<td><em>Mother Teresa</em> by Kathryn Spink</td>
<td>MT</td>
</tr>
</tbody>
</table>

**4.11 Educational Implications**

Analyses of the four auto/biographies through event analysis and idea analysis create a holistic picture of the leadership development of each leader under study. On the basis of these, some educational implications have been arrived at for educational leadership.

**4.12 Deriving Findings**

On the basis of event analysis and idea analysis, the researcher arrived at some generalisations on educational leadership, leader-follower relationship and impact of the leader on the process of education.
4.13 Presenting Recommendations

Based on the findings, certain recommendations have been made for leadership in an educational set-up.

4.14 Summary

The present chapter described the methodology adopted for the study. To reiterate, this is an interpretative study wherein the focus is on descriptive analysis. As the literary text are analysed through Content Analysis Method, its steps have been explained in detail here.