CHAPTER-4

METHODOLOGY

4.1 INTRODUCTION

Methodology of research refers to the plan of action to examine the research problem from various possible angles, so that the objective of the study could be accomplished. The meaning of methodology is the set of methods used in a particular area of activity. It may be understood as a science of studying how the research is undertaken based on logically derived empirical evidence from the environment. The prime necessity of the research is not only to follow all the steps of research methods or techniques, but also to consider its methodology carefully. Thus, the research methodology includes research design, and statistical design. The logic behind these designs used by the researcher must be relevant to his or her study.

Research in common parlance refers to a search for knowledge. In fact, research is an art of scientific investigation. Redman and Mory define research as a “systematic effort to gain new Know”. The inquisitiveness is the mother of all knowledge and the method, which man employs for obtaining the knowledge of whatever the unknown can be termed as research. 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.

Educational research refers to a systematic attempt to give a better understanding of the educational process, generally with a view to improve its efficiency. It is an application of scientific method to the study of educational problems. According to Mauly (1960), “Scientific problems can be solved only on the basis of data and the mansion responsibility of the scientist is to set up a research design capable of providing the data necessary to the solution of a problem.

According to F.N.Kerlinger, “Research design is the plan and structure of investigation so conceived as to obtain answers to search questions. The plan is the over all scheme or programme of the research. It includes an outline of what the investigation will do from writing hypothesis and their operational implications of the final analysis of data. A research design expresses both the structure of research problems and the plan of investigation used to obtain empirical evidence or relations of the problem”.

C.R.Miclurn and P. Hersson (1991) refers that research is an enquiry process that has clearly defined parameters and has as its aim then discovery or creation of knowledge or theory building, testing, confirmation, revision, revelation of knowledge and theory or investigation of a problem for local decision making.
In the words of Koul, "Research methodology is of utmost importance in a search process. They describe the various steps of the plan of attack to be adopted in solving a research problem, such as the manner in which the problems are formulated, the definition of terms, the choice of subjects for investigation, the validation of data gathering tools, the collection, analysis and interpretation of data and the process of inferences and generalizations.

4.2 TYPES AND METHODS OF EDUCATIONAL RESEARCH

Research involves the elements of observation, description and the analysis of different aspects and dimensions of every research problem. Thus, we find three types of research in the field of Education. They are as follows-

a) Descriptive research,

b) Experimental research and

c) Historical research

4.3 DESCRIPTIVE RESEARCH

It is concerned with conditions or relations that exist, practice that prevail belief, point of view or attitudes that one held; processes that are going on, effects that are being felt or trends that are developing. Best John W. Research in Education.

4.4 EXPERIMENTAL RESEARCH

It describes what will be when variables are carefully controlled or manipulated. The focus is on variable relationships. Deliberate manipulation is always a part of experimental.
4.5 HISTORICAL RESEARCH

It involves studying, understanding, and explaining past events. Historical research is a procedure supplementary to observation in which the researcher seeks to test the authenticity of the reports or observation made by the other. This is the systematic collection and objective evaluation of data related to past occurrences to determine causes, effects or trends of those events that may help explain present events and anticipates future events. The purpose of historical research is to arrive at conclusions concerning causes, effects, trends of past occurrences that may help to explain present events and anticipate future events. While historical studies are less frequently conducted than other types, there are certain educational problems and issues (such as grading policies) that can be better understood in light of past experience.

Historical research studies do not typically gather data by administering instruments to individuals. They must seek out data that are already available. Sources of data are referred to as primary or secondary. Primary sources constitute firsthand knowledge, such as eyewitness reports and original documents; secondary sources constitute secondhand information, such as a description of an event by other than an eyewitness. Primary sources are admittedly harder to acquire (it would be quite a feat to find an eyewitness to the Boston Tea Party) but are generally more accurate and to be preferred. A major problem with much historical research is an excess of secondary sources.
Evaluation of historical data involves external criticism and internal criticism. External criticism assesses the authenticity of the data; internal criticism evaluates their worth. The worth of the data, the degree to which data are accurate and reliable and do indeed support the hypothesis is judgmental and sometimes a matter of opinion. For example, a researcher investigating trends in classroom discipline might utilize a letter, allegedly written by Albert Einstein, containing an expression of concern regarding the amount of physical punishment of school. The result of external criticism might verify that the letter was indeed written by Albert Einstein. Internal criticism would be involved whether he could be considered a reliable source concerning educational practices of the day.

The choice of the method of research is determined by the nature of the problem. Because of the method’s apparent care and directness, descriptive method has been undoubtedly been the most popular and mostly used research method in education. In addition, to this, there are certain approaches in educational research and of which qualitative approach rather participatory approach is very important. In this piece of research the qualitative approach has also been taken into consideration.

The present study has adopted qualitative as well as historical approaches of research. As it has mentioned earlier that the historical research studies do not typically gather data by administering instruments to individuals.
They must seek out data that are already available. Sources of data are referred to as primary or secondary.

4.6 SOURCES OF DATA

Sources of data in a historical research study are classified as primary sources or secondary sources. They are-

4.7 PRIMARY SOURCES

Primary sources consist of –

(a) Remains or relics, associated with a person, group, period or event. Fossils, skeletons, tools, weapon, utensils, clothing, buildings, furniture, paintings, coins, and art objects are examples of those unconscious remains that were not deliberately intended for use in transmitting information or as records. However, these sources may provide clear evidence about the past. The contents of an ancient mound, for instance, may reveal a great deal of information about the way of life of a people- houses, food, clothing, tools, weapons, art, religious beliefs, customs, social life and means of livelihood.

(b) Oral or written testimony or the records kept and written by actual participants in an event or actual witnesses of the same. These sources are consciously produced for the purpose of transmitting information to be used in the future. Documents classified as primary sources are constitutions, characters, laws, courts rulings, official records, autobiographies, letters, diaries, contracts, deeds, wills, licenses, declarations, certificates, lists, bills,
receipts, newspapers, magazines, advertisements, maps, inscriptions, diagrams, books, pamphlets, films, pictures, paintings, recordings and research reports.

**4.8 SECONDARY SOURCES**

Secondary sources are the reports of a person who relates the testimony of an actual witness of an actual event or an actual participant in the same. The writer of the secondary source was not on the scene of the event. Secondary sources of data are usually of limited worth because of the usual errors that result when information is passed on from one person to another. Most of history books and encyclopedias are examples of secondary sources.

**4.9 EXTERNAL CRITICISM**

External criticism deals with the genuineness of the document, whether it is what it seems to be and reads true to the original. It is concerned with form and appearance of the document rather than meaning of the contents, although external criticism at times may employ internal evidence from the document through a study of its contents, in an attempt to establish questions of authorship. Problems of external criticism, in testing the genuineness of a document or remain, involve questions about the characteristics of the author and his qualifications as a reporter; factors or conditions that may have influenced the production of the document, such as time, place, purpose, and circumstances of composition; and the extent to which the document and its parts read true to the original.
The work of external criticism has been greatly facilitated through the development of a number of auxiliary sciences, and of printing and photography, especially in dealing with older sources. A partial list of the important auxiliary aids or fields includes: anthropology, archaeology, astronomy, cartography, chemistry, chronology, economics, education, geography, politics, philosophy, and psychology etc. In the present study the external criticism has been ensured by observing the authenticity of the documents. Here all the documents except few have been consulted which are published from government offices; which are available in the NCERT, NUEPA library and Government’s web sites.

4.10 INTERNAL CRITICISM

Internal criticism deals with the meaning and trustworthiness of statements remaining within the document after any spurious or interpolated matter has been removed from the text; in other words, it weighs the testimony of the document in relation to the truth. These questions of accuracy and value of the statements made normally come in sequence after question of authorship, genuineness, time, place, and actual language or text of the original document has been answered through the processes of external criticism. The shift of emphasis in internal criticism is from the document as such to statements within the document. Many authentic and genuine documents (so determined by external criticism) may not be completely
accurate or truthful, and require the processes of internal criticism in the form of textual criticism, as well as investigation of such factors as the competence, good faith, position, and bias of the author of the document.

As it is mentioned earlier that the present study is documentary analysis study, so here documents related to school education which are published from government’s offices and some of the documents are published even by the Ministry of Education, Government of India. Hence, from this it may ensure that internal criticisms have also been duly taken cared in the present study.

4.11 SOURCES OF DATA FOR THE PRESENT STUDY

In the present study the researcher has consulted with both the primary and secondary sources of data for the purpose of the research. Regarding primary sources of data the researcher has consulted with the various documents concerned with the history of education of India.

4.12 EXPLORATION OF DOCUMENTS

To drive the study in its proper direction to reach the objectives, the following documents had been explored in addition the research literatures, to acquire data. It would be worthwhile to mention here is that Commissions and Committees constituted regarding the school education before and after independence in India have been consulted for the purposes. Commissions and Committees constituted before independence are-
A. Hunter Commission, officially known as Indian Education Commission (1882)
B. Indian Universities Commission (1902)
C. Government Resolution on Educational Policy (1913)
D. Calcutta University Commission (1917) also called Sadler Commission
E. Hartog Committee (1929)
F. Sapru Committee (1934)
G. Abbot-Wood Report (1936-37)
H. Zakir Hussain Committee (1937)
I. Wardha Education Committee of the Central Advisory Board of Education (1939) also called B. G. Kher Committee

While some of these reports covered entire system of education, some others focused on its selected sectors or levels. Similarly, the Government of independent India, in pursuance of the constitutional mandate, has also initiated several measures for social and economic reconstruction of the country. As a result, measures for educational reconstruction had inevitably followed. Various commissions and committees were appointed at different times to survey, study, review and recommend improvements in the existing system, policies and programmes of education. Reserving the net effect of all
these for later sections of this paper, it is appropriate here to recall the chronology of some landmark commissions, committees, policies, programmes and frameworks.

- University Education Commission (1948-49) popularly called Dr. Radhakrishnan Commission
- Secondary Education Commission (1952-53) popularly called Dr. Mudaliar Commission
- Committee on Higher Education for Rural Areas, Rural Institutions (1954) -- Shri K. L. Shrimali Committee
- National Committee on Women's Education (1958) -- Shrimati Durgabai Deshmukh Committee
- University Grants Commission’s Review Committee on Education (1960) -- Prof. K.G. Saiyidain Committee
- U. N. Dhebar Commission (1960)
- Committee on Emotional Integration (1961) -- Dr. Sampurnanand Committee
- Committee on Plan Projects: Study Team for Selected Educational Schemes (1961) -- Shri B. N. Jha Committee
- Study Group on the Training of Elementary Teachers in India (1961)
- Kothari Committee on Model Act for Universities (1961)
- University Grants Commission’s Committee on Education as an Elective Subject at the Undergraduate Stage (1963) -- Mr. A. R. Wadia Committee
- Study Group on the Study of English in India (1964) – Prof. Gokak Committee
- Education Commission (1964-66), popularly called Dr. D. S. Kothari Commission
- Committee of Members of Parliament on Education (1967)
- Three Delegations by University Grants Commission (1967-1971)
- Steering Committee of Planning Group on Education (1968)
- National Policy on Education (1968)
- Review Committee on the Working of National Council of Educational Research and Training (1968) -- Dr. Nag Chaudhuri Committee
- Study Group on the Development of Pre-school Child (1970) – Shrimati Mina Swaminathan Committee
- Gajendragadkar Committee on Governance of Universities and Colleges (1971)
- National Committee on 10+2+3 Educational Structure (1972) -- Dr. Shukla Committee
- Committee on Secondary Teacher Education of NCTE (1973-77) -- Dr. Jha Committee
Committee on Elementary Teacher Education of NCTE (1975) -- Dr. Malcolm S. Adiseshaiah Committee

University Grants Commission’s Panel on Teacher Education During Fifth Plan Period (1974)

The Curriculum for Ten-Year School: A Framework (1975)

Standing Committee of National Council for Teacher Education (1975-76)

Review Committee on the Curriculum for Ten-Year School (1977) -- Shri Ishwarbhai Patel Committee

Working Group on Vocationalisation of Education (1977-78) -- Dr. Malcolm S. Adiseshaiah Committee

Draft National Policy on Education (1979)

Study Group on INSAT Television Utilisation for Education and Development (1980) -- Shri S. Sathyam Committee

National Commissions on Teachers – I & II: The Teacher and Society (1983-85) – Prof. Chattopadhyaya Commission

Working Group to Review Teachers' Training Programme (In the Light of the Need for Value-Orientation) (1983)

Challenge of Education: A Policy Perspective (1985)

National Curriculum for Primary and Secondary Education: A Framework (1985)

- NCTE Committee for Teacher Education Programme Through Distance Education Mode (1990)
- Central Advisory Board of Education Committee on Distance Education (1992)
- CABE Committee on Policy, 1992
- The National Council for Teacher Education Act, 1993
- Group to Examine the Feasibility of Implementation of the Recommendations of the National Advisory Committee (1993) -- Prof. Yashpal Committee
- Committee on B.Ed. Correspondence (1993) -- Prof. Ramlal Parikh Committee
- University Grants Commission’s Committee on B.Ed. Correspondence, Distance Education Programme (1994)
- Special Orientation Programme for School Teachers (SOPT) (1994-97)
- Committee of National Council for Teacher Education on Different Modes of Education Used for Teacher Preparation in India (1995)
- University Grants Commission’s Committee on B.Ed. Through Correspondence for In-service Teachers (1995) -- Prof. Takwale Committee
- Planning Commission’s Report on Teacher Education in Five Year Plans (1951-97)
- Panel to Review the functioning of the University Grants Commission (UGC) and the All-India Council for Technical Education (AICTE) (2008), later rechristened as The Committee to Advise on Renovation and Rejuvenation of Higher Education (2009) -- Prof. Yashpal Committee
- The Right of Children to Free and Compulsory Education Act, 2009
The latest commission is the National Knowledge Commission (NKC) 2006-09, which is popularly called Sir Sam Pitroda Commission.

Again, regarding the secondary sources of data the researcher has consulted different books regarding the history of Indian Education. Beside this the researcher has consulted with different encyclopedia, journal and magazine’s article related to the topic concerned. Secondary sources constitute second hand information, such as referee books (encyclopedias, for example) or reports by relatives of actual participants or observers. After collection of necessary data and information from the various primary and secondary sources the researcher has arranged all the documents chronologically and interpreted with proper references on the basis of objectives, which have been presented in the next chapter.

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