

Unit 13

Methods of Research

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Learning Objectives



It is expected that after reading Unit 13 you would be able to

- ❖ Appreciate the importance of research methods in the social sciences
- ❖ Clarify the relationship between methodology and methods
- ❖ State the elements of research methodology and types of data generally used in social research
- ❖ Describe the various research methods.

13.1 Introduction

Learning about research methods would help you find out how we get to know what we take as facts. Lack of adequate nutrition makes you suffer from malnutrition. Polluted water causes jaundice. Regular exercises keep one fit and free from common diseases. How do you come to these facts? Some researchers in some places must have carried out studies to find each of the above facts.

When you ask how a particular researcher has gone about making a study, you are basically inquiring about the researcher's methods. There are some common ways of carrying out one's research and Unit 13 is going to talk about such methods. It will also describe the various steps in the research process. The unit will also once again clarify the difference between methodology and method and explain the subtle relationship between the two terms. Understanding the ways of systematic research is to prepare you to undertake your own mini research project. Please note that the project will comprise one of your assignments.

13.2 Centrality of Research Methods in Social Sciences

In the social sciences, the identity of the disciplines depends largely on the methods its practitioners use. In other words, you cannot ignore the

centrality of methods in the social sciences. Most of social science disciplines borrowed the methods from the natural sciences, though they study matters quite different from matters in the natural sciences. As a result, the social sciences are continuously engaged in resolving the contradiction between the materials pertaining to social phenomena and methods belonging to the study of natural phenomena. As mentioned in the introduction to Block 4, the methods refer to technical rules that define procedures for collection and analysis of data. If there are various methods of data collection, there are also several methods of data analysis, such as statistical inference, sampling and new forms of computer-based qualitative data analysis. There are also methods of research inquiry such as the formulation of the research problem, methods of constructing hypothesis, concepts, theories and propositions.

If understood in this frame, methods lay down the procedure for generation of reliable and objective knowledge. Researchers are not free to formulate a questionnaire, conduct an interview or carry out participant observation the way they like. They need to follow definite and well-accepted procedures to ensure that the knowledge generated methods turns out to be objective, authentic and reliable.

13.3 Interface between Methodology and Methods

Once more to clarify, we draw your attention to the fact that methodology refers to the broad theoretical and philosophical frame into which the procedural rules fit. The study of the interface between methods and methodology is called the 'philosophy of social research' (see Hughes 1990). It explores the manner in which the broad philosophical and methodological orientations validate and authenticate the procedural rules for collection and analysis of data. According to Brewer (2000) the causal relationship could be stated in the following manner.

The success of a research pursuit is largely determined by the methodology on which it is based. You already know that research methodology is a broad frame of the research process; it elucidates the theoretical orientation with which the research process is to be carried out that guides the choice of methods and techniques to be used. Sociologists like to believe that what gives social research its scientific flavour is the inductive approach that helps the researcher to arrive at broad generalisations.

You may be wondering why we are discussing methodology while Unit 13 is on methods of research. Hope the above discussion has clarified that it is necessary to be clear about one's methodology in order to arrive at procedural rules or methods of one's research. This is why we are now going to discuss basic elements of methodology, which in turn help us to decide the particular methods to be used.

Before moving to Section 13.4 it is a good idea to complete Reflection and Action 13.1.

Reflection and Action 13.1

Read the Introduction to Book 1 and 2 and work out how theory and research are linked. Discuss what each contributes to the other. Then identify a topic of your interest and specify the range of social phenomena this topic will address. In Reflection and Action 13.2 you will continue this exercise.

13.4 Elements of Research Methodology

The basic elements that build research methodology are

- i) Concepts
- ii) Propositions or Hypotheses
- iii) Theories.

The three elements provide the scaffolding to reach a research methodology. All three elements are related to each other in a cyclical fashion. While you can define a concept by using a theory, the concepts in turn shape the content of theories. Let us now acquaint ourselves with each of the three elements.

Concepts: Concepts are the building blocks of social research. You can define a concept as a short hand representation of a variety of facts. It is the significant symbol/ component of social scientific language. All concepts are essentially the abstractions of reality. A reality has several dimensions; hence a concept can convey several meanings and impressions. The concepts are defined according to the theoretical orientation of the researcher and bring coherence into the abstraction of the phenomenon under study. The concepts then form the bases of the theories (see Box 13.1 for defining the term 'concept')

Box 13.1 Babble's (1989: 126) Definition of the term 'Concept'

A concept is "a mental image we use as summary device for bringing together observations and experiences that seem to have nothing in common {...} they do not exist in the real world, so they can't be measured directly".

Babble (1989: 126) has further explained the word 'conceptualisation' in the following words,

"Conceptualisation is the process of specifying the vague mental imagery of our concepts (by) sorting out the kinds of observation and measurements that will be appropriate for our research." (For measuring a concept you need to translate the concept into measurable indicators.)

Propositions/ Hypotheses: Propositions are the statements of interrelationships among concepts. The definitions of particular concepts as subjects of research involve explicit or implicit contrast between the concepts under consideration and the set of all other possible subjects

chosen from the same universe. For instance, while inquiring into the domain of human groups with special reference to peasants, the term peasant is defined as a type of person or community having particular characteristics that contrast with urban dwellers, tribals, etc. I suggest that you look once again at Unit 3 of Book 1 to learn more about hypotheses.

Theories: You can understand theories as the systems of concepts and propositions that explain the relationships and underlying principles characterising a phenomenon. There could be "grand range" theories, which attempt to fit together in logical pattern vast areas of human behaviour. There could also be a theoretical system with a modest scope involving a small number of concepts and propositions. Theories differ with regard to their effectiveness as the sources of propositions that can be tested by empirical research. Hence, you cannot say that a theory has been "proved". However, successful verification of propositions or hypotheses always has implications for the theoretical system to which it relates. Each such verification strengthens the theory.

It is time now to complete Reflection and Action 13.2.

Reflection and Action 13.2 (continuation of Reflection and Action 13.1)

Identify and specify the major concepts and variables, relating to your research topic. Derive at least one specific testable hypothesis. Be sure your hypothesis reflects a specific relationship between two variables.

13.5 Types of Data Used in Social Research

Before moving on to the various methods used in social research, let us understand the kinds of data that are used in social research. One is primary data, which are collected by the researcher himself/herself. The other is secondary data, which are collected from sources such as libraries, etc. When the data mainly deal with numbers and tables and require statistical analysis they are called quantitative data whereas if the data are descriptive and require sociological/anthropological analysis they are called the qualitative data.

Let us now begin with the discussion of prevailing methods of social research.

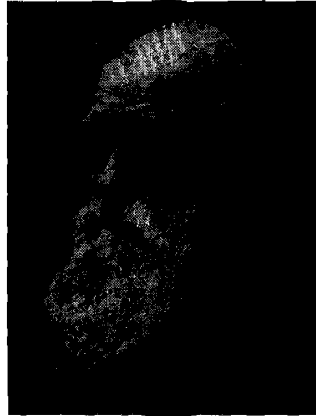
13.6 Research Methods

We have already discussed the meaning of the term method and distinguished it from methodology. This should allow you to remain sensitive to a different connotation of the term 'method'. You may come across the term in the sense of its epistemological reference and you may also come across the term in the context of its use as a tool of research. Our discussion of the following methods refers to both shades of meaning

but it is more in the context of their uses as tools in research. Their discussion pertains to both the ways of collecting and analysing data. You may also note that methods specifically relating to quantitative and qualitative procedures (sampling, survey, intensive fieldwork, participant observation and case-study etc) will be elaborated at length in Block 5 and Block 6 of Book 2 and Block 7 of Book 3. Therefore, they have not been included here for our general discussion of research methods.

Evolutionary method

We have learnt while understanding the emergence of empiricism in social research that the earlier social scientists emulated the biological model in the study of society. Darwin's theory of evolution found parallels in the social sciences. It was presumed that societies go through the stages of transformation from simple to complex forms. Each change by itself results in minor modifications in the phenomenon but the cumulative effect of changes over a long period is the emergence of new, usually more complex, forms. It studies the cumulative effect of a series of changes by analysing how each change brings modification.

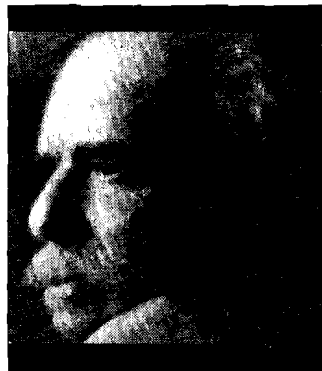


Charles Darwin
(1809-1882)

Several sociologists opposed this method and called the method a tool to build historical descriptions, which sounded artificial and superficial. But at the same time one comes to know systematically about the altered conditions of an institution through a long period of time. The method allows a study of social change.

Comparative method

This is the oldest method in the social sciences used to generate and analyse both kinds of data, secondary and primary. Positivists like Auguste Comte (1830-1892) called it a reliable and scientific method of inquiry. The evolutionists and diffusionists used it to explain the similarity of cultural traits and the 'progress' of societies. It was a simple exercise to break up cultural wholes into traits and compare them to evolve theories of diffusion and evolution. Franz Boas (1858-1942) who vehemently criticised the 'armchair' theorists and came up with the idea of cultural relativism, which accepts each culture as a unique entity and rejects the idea of comparison of traits across cultures. Boas emphasised the relevance of historical data and propounded the idea of studying cultures in the historical context. This led to the emergence of cross-cultural studies and attempts were



Franz Boas
(1858-1942)

made to analyse the universal categories in each culture like kinship, family marriage, religion, etc to understand the similarities of human societies all over the world. Cross-cultural comparisons are the basis of the structuralism in anthropology, especially of Levi-Strauss (1963).

Boas (1940) pointed out the limitations of the comparative method. He recommended a modified use of comparison within a small well-defined geographical area. He called this method 'historical method'.

G.P. Murdock (1940) uses statistical techniques to give a new dimension



G P Murdock
(1897-1985)

to his comparison but he prefers to call it a cross-cultural survey. According to him, in order to understand what precisely the comparative method should be, we must bear in mind the kind of problems to the solution of which it is directed. These are of two kinds, which we can distinguish as synchronic and diachronic[Ⓢ]. In synchronic study, we are concerned only with a culture as it is at any given moment of its history. The ultimate aim may be to define as precisely as possible the conditions to which any culture must conform if it is to exist at all. We are concerned with the nature

of culture and of social life along with the discovery of what is universal beneath the multitudinous differences that our data present. Hence we need to compare as many and as diverse types of culture as we possibly can.

In a diachronic study of culture, on the other hand, we are concerned with the ways in which culture changes, and seek to discover the general laws of the process of change. To study how the culture changes, we have to first determine what culture really is and how it works.

Thus, the study of synchronic problems must necessarily to some extent precede the study of diachronic problems. Fred Eggan (1954) states his



Oscar Lewis
(1914-1970)

own preference for the utilisation of the comparative method on a smaller scale and with as much control over the frame of comparison as possible. Firstly, it is natural to utilise regions of relatively homogenous culture or work within social or cultural types and further to control the ecological factors in so far as it is possible to do so. Secondly, it is important to control the historical framework within which comparison takes place. Eggan (1954) suggests the method of controlled comparison. Oscar Lewis (1955), on the other hand, holds that there are only

comparisons in anthropology and no comparative method.

With time, the comparative method has undergone a tremendous change. Earlier scholars used this method to arrive at general laws about society. But soon the realisation dawned that arriving at general laws was not possible because of the complexity and diversity of social phenomena across societies. By 1960 onwards the main aim of comparative method shifted from the formulation of universally valid generalisations to the production of accounts of specific cultures. This emphasis on ethnographic specificity has produced data which is qualitatively different from that produced by earlier studies.

The cross-cultural studies fall into two categories: (i) Idiographic studies, which focus on particularistic details located in time and space and (ii) nomothetic studies that focus on law-like generalisations.

Let us now discuss the historical method.

Historical method

This method recognises the uniqueness and dynamic nature of societies and cultures. The historical information pertaining to an entity (which could be a society, an institution or any phenomenon) reveals a great deal about the nature of its social dynamism. The data that doesn't take historical dimension into account gives the impression of timelessness.

The historical method collects facts by going to the past in different periods. The sources of information include written records, newspapers, diaries, letters, travellers' accounts, etc. Social researchers generally confine themselves to three major sources of historical information.

- a) Documents and various historical sources to which historians have access
- b) Materials of cultural history and of analytical history and
- c) Personal sources of authentic observers and witnesses.

When, how and under what circumstances to use any or all these sources depends upon the discretion of researchers' interests, scope of their studies, and availability of sources. You can make direct use of documents when historians have not analysed the events that they depict and others have not yet incorporated them into the writings of the broader cultural historical settings. You can also use them to supply a missing link in our knowledge of a particular social situation.

When historical documents depict events not of generations but of centuries past, it is generally useful for social researchers to utilise the existing secondary data, which may be interpretations or analyses of history. But there are some of the following limitations to this method.

- a) Historians cannot write history life-size.
- b) Not all happenings in time and space can be known at the time of writing.
- c) Personal biases and subjective interpretations enter unconsciously.

At the same time historical data may be regarded as reliable

and adequate for social research

- a) When you present historical documents as complexes of social forces.
- b) When social phenomena meaningfully depict intricate social processes and sets of inter-relationships (psychological, economic, educational, cultural, religious) contribute to a unified whole, a configuration or complex pattern.

Moreover the documents which you may study, may be personal documents like biographies, diaries, letters, and memoirs or may be public documents like magazines and newspapers, and other published data.

Let us complete Reflection and Action 13.3.

Reflection and Action 13.3

After going through the three research methods discussed in Section 13.6 of Unit 13, why a sociologist (or a social scientist) would use an evolutionary skilled method, a comparative method, and an historical method. Select a research topic and show how this topic would be addressed in terms of each of the three methods of research.

Personal documents

These include all the published and unpublished information documented by individuals for different purposes. Personal documents are not written in a scientific style. They generally represent some ideas, values and feelings, etc. In spite of being subjective and unscientific, personal documents have been of value in social research. They provide information about contemporary social circumstances, systems, customs, ways of life, etc. You may come across the following types of personal documents.

Biographies: Some great political leaders, social reformers and eminent persons write their autobiographies. These provide useful information concerning social, political, religious and cultural conditions, and the incidents of their time. Whatever the type of information biographies provide a few valid and reliable pieces of information. However, the authors might have tried to exaggerate or underrate incidents and their feelings intentionally. They may have deliberately concealed facts, which may show their personality in a favourable or unfavourable perspectives.

Diaries: Diaries are written with different intentions. Some persons write diaries to remember important incidents of their life. Some others review their life. Others review their life from time to time and not in diaries.

The information contained in a diary could be very useful in social research. Diaries are used as a technique of sociological research mainly in literate societies where it is not always possible to closely observe interaction. You may urge your respondents to write their interactions in diaries. For example, Cubitt (1973) used this technique on a sample of couples

for a period of one week and found that diaries generated useful data but not many respondents were willing to write diaries for not more than a week.

Most diary writers have no intention to publish them. Generally it is expected that information recorded in a diary will be reliable. Certain limitations of diaries are

- a) As diary writing is mainly personal, therefore it does not include detailed and complete description of incidents but information in a sketchy and rudimentary form. As a rule, a diary does not record the context in which an incident has taken place. This makes it difficult to interpret incidents and understand their real meaning.
- b) Diaries are written irregularly and thus lack connection in information. It is very difficult to connect different incidents and feelings described in them.

Letters: Letters are the medium of expression of feelings, likes and dislikes, plans, attitudes, desires, emotions, ambitions, and also important incidents of life. They tell about interrelationships such as friendship, love and marital affairs, tensions, etc. Some notable limitations of letters are:

- a) It is difficult to collect private letters.
- b) Letters do not provide detailed and complete description of incidents.

Memoirs: Some persons are interested in writing memoirs of their travels, excavations, explorations etc. Such memoirs provide useful information in social research.

Public or Official Documents

You may collect public documents of the following types from some government or non-government institution.

Records - Most government and non-government departments preserve so many types of records consisting of important information and are important sources of information for social research.

Published data- You may find several sources of this kind of data, for instance periodical surveys concerning population, rate of mortality, birth rate, marriage and divorce. Such published documents are very useful.

Journals and Magazines - These are important public documents including information on various aspects, which can be utilized in social research. This source of information is quite reliable.

Newspapers - The published news, discussions on contemporary issues, report of meetings, and conferences, essays and articles, letters to editors are good sources of information and have a good deal of reliability.

The collection of primary data in empirical situation involves one of the

two kinds of methods depending on the nature of data required. These are Survey method and Fieldwork method. As noted earlier, we will discuss these methods in detail in other blocks of MSO 002.

13.7 Conclusion

Unit 13 has provided the prospective researcher an elementary introduction to methods commonly used in social research. Research is needed almost everywhere and therefore it is a good idea to learn research methods, which help us appreciate how we come to know what we take to be facts. Someone somewhere makes a study and offers the world his or her findings on the subject of research. For accuracy, reliability and better usability of your research you would employ scientific methods. We have discussed elements of methodology that provide us with an overall frame for conducting research and selecting appropriate tools for going through the research procedure. We discussed some of the commonly employed social research methods while for other methods we will go to units in Block 5 and Block 6 of Book 2 and in Block 7 of Book 3 of MSO 02.

Further Reading

Allen G and G. Skinner 1991. *Handbook for Research Students in Social Sciences*. Falmer Press: London

Babbie, E. 1989. *The Practice of Social Research*. Wadsworth Publishing Company: Belmont, California

