

TYPES OF RESEARCH

**Material prepared according to the Textbook and Reference Books given in
the Syllabus**

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SYLLABUS

Year	Subject Title	Sem.	Sub Code
2018 - 19 Onwards	Core 14 : Research Methodology	IV	18MPA43C

Objective

This paper attempts to introduce to the students the various methods of conducting a social science research, the procedure to formulation of a problem, its design, the various techniques of data collection, data analysis and to prepare the research report

UNIT – I: INTRODUCTION

Social Science Research – Objectives, Scope and Need for Social Science Research – Research in Public Administration.

UNIT – II: TYPES OF RESEARCH

Types of Research – Historical, Explorative, Analytical, and Empirical, Research – Value Dichotomy in Research in Public Administration.

UNIT – III: RESEARCH PROCESS

The Research Process and Concepts – Variables – Review of Literature – Hypothesis – Research Design.

UNIT – IV: RESEARCH TECHNIQUES

Techniques of Data Collection, Observation, Interview, Schedule, Questionnaire – Reliability and Validity, Sampling Techniques – Case Study - Survey

UNIT – V: RESEARCH REPORT

Data Analysis – Interpretation – The Research Report – Role of SPSS in Research – Ethics in Social Science research

Textbook

1. Saravanavel P :Research Methodology, Kitab Mahal, New Delhi 1991.

Reference Books

1. David E McNabb – Research Methods in Public Administration and Non – Profit Management, PHI Learning Pvt. Ltd, New Delhi, 2013,.
2. Gerald J.Miller Hand book of Research Methods in Public Administration Kaifeng Yang New Yark-2007.
3. Kothari C.R Research Methodology-Methods and Techniques. New Age International Publishers, New Delhi 2004
4. Sam Daniel P and Aroma G.Sam, Research Methodology, Gyan Publishing House, 2011.

TYPES OF RESEARCH

People constituting a society are the makers of history as well as the products that are the result of history. In a modern society, howsoever we may try we cannot escape history. It forms an integral part of life. It affects our day-to-day living at all times. In taking a decision in daily life, we often base it on our past experiences. History, “as commonly understood, may refer to events themselves or the record of events”. She further adds, “History may be interpreted very broadly, to include nature as well as man. There is a history of the process of evolution, as Darwin made clear, but in general usage history refers to the study of man and what happened to him”. History is” the past experience of mankind. More exactly, history is the memory of that past experience as it has been preserved, largely in written records”. Thus, it is the product of historians’ work in reconstructing the flow of events derived from the sources of information putting it into a narrative account.

Historical Research

Definitions Historical research is “the systematic collection and objective evaluation of data related to past occurrences in order to test hypotheses concerning causes, effects, or trends of those events which may help to explain present events and anticipate future events”. According to Isaac and Michael, historical research involves reconstructing “the past systematically and objectively by collecting, evaluating, verifying, and synthesizing evidence to establish facts and reach defensible conclusions, often in relation to particular hypotheses”. “True historical research, or historiography, is concerned with analyzing and interpreting the meanings of historical events. It is the process by which a researcher is able to reach a conclusion as to probable truth of an event in the past by studying objects available for observation in the present”. It may be considered, “as a scholarly attempt to discover what has happened”. Historical research is “the process of systematically examining past events to give an account of what has happened in the past”. The above definitions are certainly useful ones. Gay points out the role of hypotheses. Isaac and Michael emphasise the establishing of facts systematically and objectively. Goldhor uses the term ‘true historical research’ and refers to probable truth of an event in the past. Mouly gives a very simple definition, stressing on ‘a scholarly attempt’. Thus, we may conclude from above that true historical research is a process of reconstructing the past through systematically and objectively collecting, evaluating, verifying and synthesising evidence relating to the past events to establish facts and defensible conclusions, often in relation to particular hypotheses (if appropriate), to arrive at a scholarly account of what happened in the past.

2.2.2 What is not Historical

Research? True historical research must be distinguished from chronology. Chronology is defined as “simply the setting down of events in the order of their occurrence, a process similar to the older concept of historical research”. Chronology of events is merely a first step in the process of historical research, providing data or material for latter steps. A description of past events is not considered historical research. It serves as background for the researcher. It can be starting point for him. A mere collection of facts including their description, does not constitute historical research. Facts can serve as a base. Facts have to be related and a total picture drawn, to become meaningful and contiguous one. What Constitutes Historical Research? “True historical research, or historiography, is concerned with analyzing and interpreting the meaning of historical events. It is a process by which a researcher is able to reach a conclusion as to the probable truth of an event in the past studying objects available for observation in the present“.

It is a flowing, dynamic account of past events, which involves an interpretation of these events in an attempt to recapture the nuances, personalities, and ideas that influenced these events. (Johnson lectures, Chap. 1) From above, it follows that historical research constitutes of a narrative account of the past events written on the basis of interpretation of those events, to recapture personalities, ideas and environment of those times that shaped the events. Advantages There are some advantages of historical research as given below: • The research is not physically involved in the situation under study; • No danger of experimenter-subject interaction; • Documents are located by the researcher, data is gathered, and conclusions are drawn out of sight; • “Historical method is much more synthetic and eclectic in its approach than other research methods, using concepts and conclusions from many other disciplines to explore the historical record and to test the conclusions arrived at by other methodologies”. The author further adds, “Many methods used alone or in conjunction with other supporting techniques of data collection and analysis can adequately demonstrate that some particular situation or relationship between variables exist in the present. But the persistence and permanence of these conclusions will always be questionable without historical verification”; and • Perhaps more than any other research method, historical research provides librarians with a context. It helps to establish the context in which librarians carry out their work. Understanding the context can enable them to fulfil their functions in the society. The study of status of women in librarianship would require understanding their historical roots in society as well as in the establishment of librarianship as a profession. Similarly, investigation into the status of university librarians in India would require establishing the

context. It is only through the understanding of the history that one can appreciate the environment in which librarians take decisions or carry out their professional work. In case, we want to find answers to questions like, why a particular service was started by a library or why the library reclassified its collection from Colon classification to Dewey decimal classification, then historical research can enable us to find the answers.

Purpose of Historical Research

Purposes Historical research is carried out to serve the following purposes:

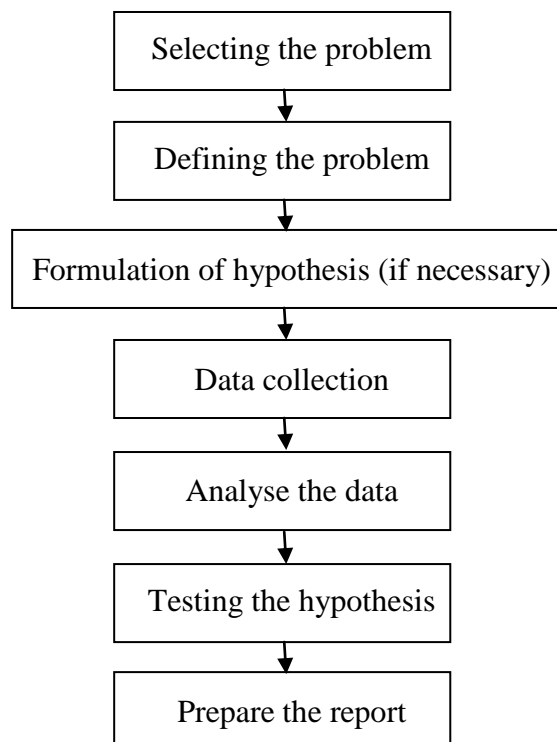
- To reconstruct the past A historian reconstructs the past systematically and objectively, reaching at conclusions that can be defended.
- To discover unknown events. There are some historical events that occurred in the past that are not known. A historian seeks to discover these unknown events.
- To understand significance of events. There may be significant events that may be responsible for shaping an organisation/a movement/a situation/an individual being studied by a historian
- To discover the context of an organisation/movement/the situation In order to explore and explain the past, a historian aims to seek the context of an organisation/a movement/ the situation being studied.
- To find answers to questions about the past. There are many questions about the past, to which we would like to find answers. Knowing the answers can enlighten us to develop an understanding of the past events.
- To study cause – and effect relationship. There is a cause-and effect relationship between two events. A historian would like to determine such a relationship.
- To study relationship between the past and the present. The past can often help us to get a better perspective about current events. Thus, a researcher aims to identify the relationship between the past and the present, whereby; we can get a clear perspective of the present.
- To record and evaluate the accomplishments of individuals, institutions and other kinds of organisations. Historians are greatly interested in recording and evaluation of the accomplishments of leading individuals and different kinds of organisations including institutions and agencies because these influence historical events. To provide understanding of the immediate phenomenon of concern A researcher may be investigating a phenomenon. Historical perspective can enable him to get a good understanding of the immediate phenomenon of concern.

- To understand the cultural context of libraries. Libraries as institutions form an important part of culture. Study of libraries enables us to understand the culture responsible for the growth and development of libraries.

Necessary conditions for Historical Research

1. Selection of topic for research should be competent and feasible.
2. Social insight. The Researcher has to understand the relationship between cause and effect of social events. Without enough social background the researcher will not be able to draw proper conclusion.
3. Historical orientation. Facts and effects should be based on historical perspective.
4. Knowledge of related social sciences. This will help the researcher to analyse the topic in its proper perspective.
5. Wide educational background. To inter relate the topic wide education background is needed.
6. Familiarity with topic and its objective.
7. Imaginative capacity. Without imagination the researcher will not complete his/her study.
8. Analysing capacity – editing – coding – classification.
9. Knowledge of his own limitation.
10. Availability of necessary facilities.

Process of conducting a Historical Research.



Explorative Research

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Researchers use exploratory research when trying to gain familiarity with an existing phenomenon and acquire new insight into it to form a more precise problem. It begins based on a general idea and the outcomes of the research are used to find out related issues with the topic of the research.

In exploratory research, the process of the research varies according to the finding of new data or insight. Also referred to as interpretative research or grounded theory approach, the outcomes of this research provide answers to questions like what, how and why.

Characteristics of Exploratory Research

- Exploratory research is inexpensive, highly interactive and open-ended in nature.
- There is usually no prior relevant information available from past researchers.
- It has no predefined structure.
- It answers questions like how and why aiding the researcher to acquire more information about the research.
- The absence of relevant information from past research means the researcher will spend a lot of time studying materials in detail. Therefore, spending so much time conducting exploratory research.
- Since there is no standard for carrying out exploratory research, it is usually flexible and scattered.
- There must a few theories which can verify your outcome.
- Researchers cannot form a conclusion based on exploratory research.
- The research problem must be important and valuable
- Exploratory research mostly deals with qualitative data.

Exploratory Research Methods

There are several exploratory research methods available for data gathering and research. However, exploratory research has been classified into two main methods, namely the primary and secondary research methods. The process of conducting research tends to be more difficult when dealing with a problem that hasn't been deeply investigated before.

How to Conduct Exploratory Research

Step 1 - Identify the problem

This is a common starting point for all types of research. Here, the researcher identifies the purpose of the research by answering the "what question" .For example, when investigating a crime scene, the CBI needs to first identify what happened. Was it theft, murder or a case of child abuse?

Step 2 - Create the hypothesis

After identifying the problem, the researcher goes ahead to check whether there have been prior investigations regarding the subject matter. But when the researcher realizes that there are no previous investigations, he/she arrives at a hypothesis based on the questions obtained while identifying the problem.

If you are investigating a crime scene, an autopsy will be performed on the dead body to answer how he/she was killed. Questions like, was he in a gang? Fighting over a business deal? or very rich? Will answer the question of why he was killed.

With this information, the investigator can arrive at a hypothesis.

Step 3 - Conduct further research

To conduct further research, the researcher needs to first obtain relevant data that will assist in the research process. Some of the methods of collecting data include interviews, surveys, online sources, etc.

Once the data has been collected, the researcher will continue the investigation through descriptive methods. This process uses qualitative data.

Analytical Research

Analytical research is a specific type of research that involves critical thinking skills and the evaluation of facts and information relative to the research being conducted. A variety of people including students, doctors and psychologists use analytical research during studies to

find the most relevant information. From analytical research, a person finds out critical details to add new ideas to the material being produced.

Research of any type is a method to discover information. Within analytical research articles, data and other important facts that pertain to a project is compiled; after the information is collected and evaluated, the sources are used to prove a hypothesis or support an idea. Using critical thinking skills (a method of thinking that involves identifying a claim or assumption and deciding if it is true or false) a person is able to effectively pull out small details to form greater assumptions about the material.

Some researchers conduct analytical research to find supporting evidence to current research being done in order to make the work more reliable. Other researchers conduct analytical research to form new ideas about the topic being studied. Analytical research is conducted in a variety of ways including literary research, public opinion, scientific trials and Meta-analysis.

Importance of Analytical Research

In research, analytical research is fundamental because it encompasses critical thinking skills and critical assessment of the information obtained in research. Students, psychologists, doctors, and marketers, among others, prefer to use analytical research to discover the missing link in study information. Analytical is vital because it introduces new ideas about what is happening in your data and helps prove or disprove hypotheses. The type of data collected is essential in establishing the relevance of a particular idea or validating a hypothesis. The information gathered helps in identifying a claim and ascertaining whether it is true or false. Therefore, analytical research is necessary because it brings together small details, often unobservable, to create more provable assumptions about a phenomenon being investigated. In an organization, analytical research helps the management in decision-making about various product promotions and the effectiveness of campaigns. In medicine, it is essential in determining whether a given treatment is effective or not. Thus, analytical research can help save lives, save money, and lead to more effective ways to meet one's objectives.

Steps in Analytical Research

1. Define why you need data analysis.
2. Begin collecting data from sources.
3. Clean through unnecessary data.
4. Begin analyzing the data.
5. Interpret the results and apply them

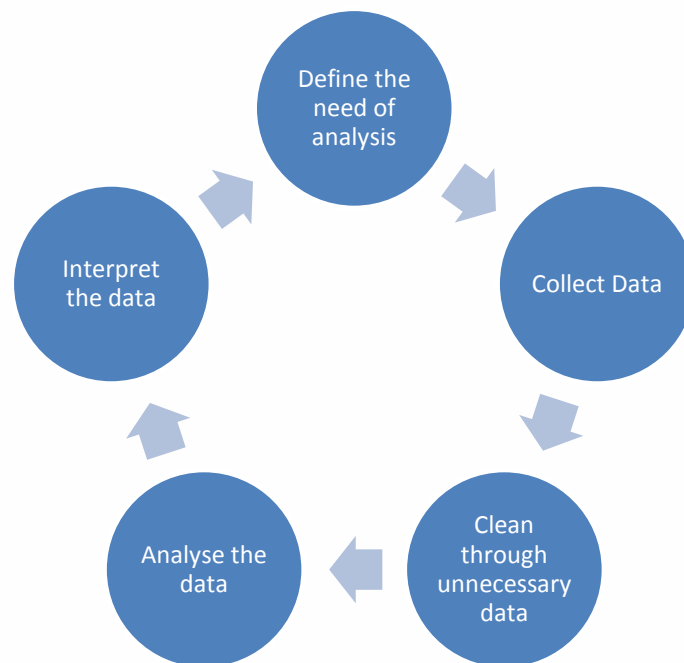


Fig. Process of analytical Method

Empirical Research

Empirical research is research using empirical evidence. It is also a way of gaining knowledge by means of direct and indirect observation or experience. Empiricism values some research more than other kinds. Empirical evidence can be analyzed quantitatively or qualitatively.

What is Empirical Research?

Empirical research is defined as any study whose conclusions are exclusively derived from concrete, verifiable evidence. The term *empirical* basically means that it is guided by scientific experimentation and/or evidence. Likewise, a study is empirical when it uses real-world evidence in investigating its assertions.

This research type is founded on the view that direct observation of phenomena is a proper way to measure reality and generate truth about the world (Bhattacharya, 2008). And by its name, it is a research approach that observes the rules of empiricism and uses quantitative and qualitative methods for gathering evidence.

For instance, a study is being conducted to determine if working from home helps in reducing stress from highly-demanding jobs. An experiment is conducted using two groups of employees, one working at their homes, the other working at the office. Each group was observed. The outcomes derived from this research will provide empirical evidence if working from home does help reduce stress or not.

Steps for Conducting Empirical Research

Since empirical research is based on observation and capturing experiences, it is important to plan the steps to conduct the experiment and how to analyze it. This will enable the researcher to resolve problems or obstacles, which can occur during the experiment.

Step 1: Establishing the research objective

In this initial step, the researcher must be clear about what he or she precisely wants to do in the study. He or she should likewise frame the problem statement, plans of action, and determine any potential issues with the available resources, schedule, etc. for the research.

Most importantly, the researcher must be able to ascertain whether the study will be more beneficial than the cost it will incur.

Step 2: Reviewing relevant literature and supporting theories

The researcher must determine relevant theories or models to his or her research problem. If there are any such theories or models, they must understand how it can help in supporting the study outcomes.

Relevant literature must also be consulted. The researcher must be able to identify previous studies that examined similar problems or subjects, as well as determine the issues encountered.

Step 3: Framing the hypothesis and measurement

The researcher must frame an initial hypothesis or educated guess that could be the likely outcome. Variables must be established, along with the research context.

Units of measurements should also be defined, including the allowable margin of errors. The researcher must determine if the selected measures will be accepted by other scholars.

Step 4: Defining the research design, methodology, and data collection techniques

Before proceeding with the study, the researcher must establish an appropriate approach for the research. He or she must organize experiments to gather data that will allow him or her to frame the hypothesis.

The researcher should also decide whether he or she will use a nonexperimental or experimental technique to perform the study. Likewise, the type of research design will depend on the type of study being conducted.

Finally, the researcher must determine the parameters that will influence the validity of the research design. Data gathering must be performed by selecting suitable samples based on the research question. After gathering the empirical data, the analysis follows.

Step 5: Conducting data analysis and framing the results

Data analysis is done either quantitatively or qualitatively. Depending on the nature of the study, the researcher must determine which method of data analysis is the appropriate one, or whether a combination of the two is suitable.

The outcomes of this step determine if the hypothesis is supported or rejected. This is why data analysis is considered as one of the most crucial steps in any research undertaking.

Step 6: Making conclusions

A report must be prepared in that it presents the findings and the entire research proceeding. If the researcher intends to disseminate his or her findings to a wider audience, the report will be converted into an article for publication.

Aside from including the typical parts from the introduction and literature view, up to the methods, analysis, and conclusions, the researcher should also make recommendations for further research on his or her topic.

Advantages and Disadvantages of Empirical Research

Advantages

Since the time of the ancient Greeks, empirical research had been providing the world with numerous benefits. The following are a few of them:

- Empirical research is used to validate previous research findings and frameworks.
- It assumes a critical role in enhancing internal validity.
- The degree of control is high, which enables the researcher to manage numerous variables.
- It allows a researcher to comprehend the progressive changes that can occur, and thus enables him to modify an approach when needed.
- Being based on facts and experience makes a research project more authentic and competent.

Disadvantages

Despite the many benefits it brings, empirical research is far from being perfect. The following are some of its drawbacks:

- Being evidence-based, data collection is a common problem especially when the research involves different sources and multiple methods.
- It can be time-consuming, especially for longitudinal research.
- Requesting permission to perform certain methods can be difficult, especially when a study involves human subjects.
- Conducting research in multiple locations can be very expensive.
- The propensity of even seasoned researchers to incorrectly interpret the statistical significance

Value Dichotomy in Public Administration Research

The fact/value dichotomy is reinforced by the objective/subjective dichotomy. Science deals with facts; it is objective. Ethics deals with preferences; it is subjective. The efficacy of technological objects, attested to by confirmed scientific theories, stands on the side of facts.

The Fact - Value Dichotomy :Simon in his writing asserts that each decision consists of a logical combination of fact(proven examples) and value (good and bad/morality, culture or virtues) propositions.

Science, it is claimed, is a value free. Metaphysicians may deal with values, but scientists may not, unless they treat the values as facts. Thus science gives stress on facts.

What is fact?

According to Goode and Hatt, fact is 'an empirically verifiable observation'. Thus, facts are those situations or circumstances concerning which there does not seem to be valid room for disagreement.

Characteristics of Facts:

1. A fact refers to something actually happened. Example: it is a fact that British left India in August 15 1947.
2. It can be subjected to empirical scrutiny:
3. Its existence cannot be denied: because it refers to is and not ought or nought smacking of some preferential orientation. (example: man's desire for power)
4. A fact is an objective reality:

Value

Values judgments constitute a large share of social science data. For example the study of socialization is nothing but the study of the gradual acquisition of values by child and the comparative historical surveys measure changes in values within a cultural system.

Characteristics:

1. Values are Preferences: The central position of value judgments in social sciences lies in the fact that value judgments are merely formalized expressions of sentiments and emotions derived from culture and impelling men to action. Thus a value is a preference, positive or negative.
2. Values are in the Ought To form: It follows from the above that values cannot be treated as facts, for they are related to the 'ought' and 'nought' of things. For example, "all people should take part in the management of public affairs so as to make their democratic system successful", is a matter of value judgment. A moralist may say that man should always be guided by the idea of 'good life'; a metaphysicist may say that 'a man should inform his activity by the principle of self-imposed categorical imperative of duty. A value is an ought-form premise in contrast to an is-form statement. A study of values in all possible forms is called 'axiology' wherein focus on epistemological and metaphysical aspects of values is characteristically noticeable.

3. Values are not absolute: it could vary from people to people and person to person.
4. Values are Relational: when we make a value judgment, we are not saying something about ourselves. The terms which we use to make value judgments, according to this analysis, do not designate any property of the objects of which they are predicted; rather they are actually relational concept; they expose a relationship between the speaker and the objects of which he is speaking.
5. Based on Speculation
6. Values are all about Right and Wrong not True or False

Role of Value:

- It is indispensable in human society: Values enter the cultural framework within which all socio-political analysis takes place. And this cultural framework is a necessary condition for social analysis, therefore, cannot be placed in abeyance.
- Helpful for Social Planning and Policy Making
- Values Supplement Facts
- Values guide behavior

As both facts and values stand in a poll opposite, the dichotomy of facts and values cannot be denied. To resolve this dichotomy 'scientific value relativism' was developed, in which facts and values should not be studied in absolute sense, rather they should be studied in relative terms. Thus, what we need is not value rejection but value neutralization, a sensitivity to rather than ignoring of values.

Objectivity

Why there is problem of objectivity in social research? Or is a value free social research is possible?

Objectivity is essential characteristics of scientific investigation. Sociology as science should have the goal objectivity. And every study has two aspects: subjective and objective. Objective study is a study in which mental condition of the researcher has no impact on the study and matter is observed in it correct perspective. So what is objectivity?

Objectivity simply refers to a state of being objective where ob i.e. not influenced by personal feeling or opinion.

Thus, objectivity can be defined as ability to see and accept facts as they are and not to be influenced by mere appearance or by prevalent notion or by one's own wishes.

Objectivity is a 'frame of mind', so that the personal prejudices, preferences or prediction of social scientist do not contaminate the collection of data. Thus, scientific investigation to be called objective when it is free from the prejudice of race, color, religion, sex or any other ideological biases.

Need of objectivity in social research has been emphasized by all important sociologist.

For example: Durkheim: Social Fact must be treated as things and all preconceived notion about the social facts must be abandoned.

Weber: advocated value free sociology.

Redcliff Brown: the social scientist must abandon the ethnocentric or egocentric biases in research.

However Gunnar Myrdal viewed: the total objectivity is an illusion, which can never be achieved. Because all research is always guided by certain "viewpoints", and viewpoints involves subjectivity.

In fact, it is difficult to achieve objectivity in social research because of the following grounds: Personal preferences & Effect of emotional tendencies.

- Ideological biases: acquired in the course of education and training:
- Confusion regarding general knowledge: as we take our general knowledge as the final authority in deciding research, which can mislead us.
- Vested interest: objectivity is marred by vested interest, habit and biases.
- Effects of customs and social views:
- Hurried approach: when the problem needs immediate attention, we tend to admit any hurriedly arrived conclusion.
- Subjectivity: where it occurs?
 - ✓ During the formation of hypothesis
 - ✓ Collection of data
 - ✓ Interview

- ✓ Due to field limitation: where researcher will be opposed by the subject not to go for the other field.

But how objectivity can be achieved?

- Use of empirical methods
- Researcher should be value neutral
- Employing trained and skilled research worker
- Measurement of defined words, concepts, and units to be applied
- Collective research
- Use of random sampling: to avoid bias in sampling
- Use of mechanical devices:

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