

## **TYPES OF RESEARCH**

### **INTRODUCTION**

Although it is perfectly possible to carry out a worthwhile investigation without having detailed knowledge of the various types of research, a study of different research types will give insight into different ways of planning an investigation.

Research can be classified from different perspectives:

- i. the objectives of undertaking the research
- ii. the application of the research study
- iii. the type of information sought

However, it is also important to note that:

- These classifications are not mutually exclusive i.e, a research study classified from the viewpoint of application can also be classified from the perspective of objectives and type of information sought.
- This classification is not exhaustive (e.g. research may also be classified on the basis of collected data, that is, Primary—collection of data through surveys directly by the researcher, Secondary---research using the data already collected and analyzed by others to re-analyze it in order to draw inferences in a different manner. Similarly, classification may also be based on client and its two types may be identified viz academic, market etc)
- No one type of research is superior to another

### **TYPES OF RESEARCH**

#### **I) OBJECTIVES**

If we examine a research study from the perspective of its objectives, broadly, a research endeavor can be classified as:

- i. Exploratory
- ii. Descriptive
- iii. Explanatory
- iv. Comparative
- v. Co-relational

### **i. Exploratory Research**

This type of research is carried out to investigate the possibilities of undertaking a particular research study. You may be exploring a new topic or issue in order to learn about it. If the issue was new or the researcher has written little on it, you began at the beginning. This is called *exploratory research*. The researcher's goal is to formulate more precise questions that future research can answer. Exploratory research may be the first stage in a sequence of studies. A researcher may need to know enough to design and execute a second, more systematic and extensive study.

This type of research study is also called a 'feasibility study' or a 'pilot study'. A small-scale study is undertaken to decide if it is worth carrying out a detailed investigation. On the basis of the assessment made during the exploratory study, a full study may eventuate.

Exploratory studies are also conducted to develop, refine and/or test measurement tools and procedures.

#### **Goals of Exploratory Research**

1. Become familiar with the basic facts, setting, and concerns;
2. Develop well grounded picture of the situation;
3. Develop tentative theories; generate new ideas, conjectures, or hypotheses;
4. Determine the feasibility of conducting the study;
5. Formulate questions and refine issues for more systematic inquiry; and
6. Develop techniques and a sense of direction for future research.

For exploratory research, the researcher may use different sources for getting information like (1) experience surveys, (2) secondary data analysis, (3) case studies, and (4) pilot studies.

### **ii. Descriptive Research**

Descriptive research presents a picture of the specific details of a situation, social setting, or relationship. It attempts to describe what is prevalent regarding a group of people or phenomenon or a program. In other words, this type of research describes systematically a situation, problem or provides information about, say, the living conditions of a community

or the attitudes of people in driving on roads or the administrative structure of an organization or attitude of people towards waste disposal etc.

Descriptive research seeks to determine the answers to who, what, when, where, and how questions. Labor Force Surveys, Population Census, and Educational Census are examples of such research. Descriptive study offers to the researcher a profile or description of relevant aspects of the phenomena of interest.

### **Goals of Descriptive Research**

1. Describe the situation in terms of its characteristics i.e. provide an accurate profile of a group;
2. Give a verbal or numerical picture (%) of the situation;
3. Present background information;
4. Create a set of categories or classify the information;
5. Clarify sequence, set of stages; and
6. Focus on 'who,' 'what,' 'when,' 'where,' and 'how' but not why?

A great deal of social research is descriptive. Descriptive researchers use most data gathering techniques – surveys, field research, and content analysis.

### **iii. Explanatory Research**

When we encounter an issue that is already known and have a description of it, we might begin to wonder why things are the way they are. The desire to know “why,” to explain, is the purpose of explanatory research. It builds on exploratory and descriptive research and goes on to identify the reasons for something that occurs. Explanatory research looks for causes and reasons. For example, a descriptive research may discover that 10 percent of the parents abuse their children, whereas the explanatory researcher is more interested in learning why parents abuse their children.

This type of research attempts to clarify why and how a relationship, association or interdependence exists between two aspects of a situation or phenomenon. For example, why do some people have a positive attitude towards an issue while others do not? Why do some people migrate to another city/country while others do not? Why some people participated in environmental improvement program while others do not.

### **Goals of Explanatory Research**

1. Explain things not just reporting. Why? Elaborate and enrich a theory's explanation.
2. Determine which of several explanations is best.
3. Determine the accuracy of the theory; test a theory's predictions or principle.
4. Advance knowledge about underlying process.
5. Build and elaborate a theory; elaborate and enrich a theory's predictions or principle.
6. Extend a theory or principle to new areas, new issues, new topics
7. Provide evidence to support or refute an explanation or prediction.

#### **iv. Comparative Research**

It is a research type of general usefulness to planners. It involves a systematic comparison of a phenomenon or experiences or processes or policies or systems through time or between cities/countries or within cities/countries or using any other unit of study or any other framework.

Comparative research requires maximum discreteness of focus, that is, a clear idea of what is the precise focus of the work so as to provide basis for systematic comparison and drawing out useful lessons.

#### **v. Co-relational Research**

This type of research attempts to establish, ascertain or explore a relationship or an association or interdependence between two or more aspects of a situation. For example what is the impact of road pricing on city centre traffic congestion, or the impact of improved sanitation on the environment and health of people or the effect of the home environment on educational achievement. These studies examine whether there is a relationship between two or more aspects of a situation or phenomenon.

## **II) APPLICATION**

If one examines a research endeavor from the perspective of its application, there are two broad categories:

### **i. Pure Research**

Basic research advances fundamental knowledge about the human world. It focuses on refuting or supporting theories that explain how this world operates, what makes things happen, why social relations are a certain way, and why society changes. Basic research is the source of most new scientific ideas and ways of thinking about the world. It can be exploratory, descriptive, or explanatory; however, explanatory research is the most common.

Basic research generates new ideas, principles and theories, which may not be immediately utilized; though are the foundations of modern progress and development in different fields. It involves developing and testing theories and hypothesis that are intellectually challenging to the researcher but these may or may not have practical application at the present time or in the future. For example, developing an instrument to measure the stress level in people or energy consumption in shopping malls or finding the best way of measuring people's attitudes.

Today's computers could not exist without the pure research in mathematics conducted over a century ago, for which there was no known practical application at that time.

The knowledge produced through pure research is sought in order to add to the existing body of knowledge.

### **ii. Applied Research**

Applied researchers try to solve specific policy problems or help practitioners accomplish tasks. Theory is less central to them than seeking a solution on a specific problem for a limited setting. Applied research is frequently a descriptive research, and its main strength is its immediate practical use.

It is very directly problem-based. Research is formulated narrow to address a particular issue that has arisen in practice. The research is expected to yield results which can be quickly translated into action. Thus the aim is to arrive at recommendations for good practice that will tackle a problem or enhance the performance, for example, of the organization and individuals through changes to the rules and procedures within which they operate.

Most social science research is applied. In other words the research techniques, procedures and methods that form the body of research methodology are applied to the collection of information about various aspects of a situation, issue, problem, or phenomenon so that information gathered can be used in other ways, for example, for policy formulation, administration, and the enhancement of understanding of a phenomenon.

### **Types of Applied Research**

Practitioners use several types of applied research. Some of the major ones are:

**Action Research:** The applied research that treats knowledge as a form of power and abolishes the line between research and social action. Those who are being studied participate in the research process; research incorporates ordinary or popular knowledge; research focuses on power with a goal of empowerment; research seeks to raise consciousness or increase awareness; and research is tied directly to political action.

**Impact Assessment Research:** Its purpose is to estimate the likely consequences of a planned change. Such an assessment is used for planning and making choices among alternative policies – to make an impact assessment of Bhasha Dam on the environment; to determine changes in housing if a major new highway is built.

**Evaluation Research:** It addresses the question, “Did it work?” The process of establishing value judgment based on evidence about the achievement of the goals of a program. Evaluation research measures the effectiveness of a program, policy, or way of doing something. “Did the program work?” “Did it achieve its objectives?”

### **III) TYPE OF INFORMATION SOUGHT**

From this perspective, research can be classified as:

#### **i. Qualitative Research**

If the purpose of the study is primarily to describe a situation, phenomenon, problem or event, the information is gathered through the use of qualitative measurement scales, and if analysis is done to establish the variation in the situation, phenomenon or problem without quantifying it, the study is classified as qualitative.

For example, the historical enumeration of events, an account of the different opinions of people about an issue, a description of the living conditions of a poor community.

The major qualitative techniques of research are:

1. Field Research
2. Case Study
3. Focus Group Discussion

## **ii. Quantitative Research**

If the variation in a phenomenon, situation, problem or issue is quantified, if information is gathered using predominantly quantitative variables, and if the analysis is geared to ascertain the magnitude of the variation, the study is classified as a quantitative research.

Examples of quantitative aspects of a research study are: how many people hold a particular attitude or have a particular problem? How many vehicles are challaned on account of absence of vehicle fitness certificate?

The main quantitative techniques are:

1. Experiments
2. Surveys
3. Content Analysis
4. Using Existing Statistics