

Research in Social Sciences

Dr. Vatika Sibal

Meaning of Research:

Research in common parlance refers to a search for knowledge. One can also define research as a scientific and systematic search for pertinent information on a specific topic. In fact, research is an art of scientific investigation (Young, 1990). The Advanced Learner's Dictionary of Current English lays down the meaning of research as "careful investigation or inquiry specially through search for new facts in any branch of knowledge". Redman and Mory define research as a "Systematized effort to gain new knowledge". Some people consider research as a movement, a movement from unknown to known or a voyage of discovery. We all possess the vital instinct of inquisitiveness for, when unknown confronts us, makes us probe and attain fuller understanding of the unknown.

Research is an academic activity and the term is used in a technical sense. According to Clifford Woody research comprises defining and redefining problems, formulating hypothesis or suggesting solutions, collecting, organizing and evaluating data, making deductions and reaching some conclusions. Finally, testing the conclusions to determine whether they fit the formulated hypothesis. D. Slazenger and M. Stephenson in the *Encyclopedia of Social Sciences* define research as "the manipulation of things, concepts or symbols for the purpose of generalizing to extend, correct or verify knowledge, whether knowledge aids in constructing of theory". Research is, thus, an original contribution to the existing stock of knowledge leading to advancement. This helps in experimenting and comparing knowledge and analyzing the facts and reaching certain conclusions either in the form of solutions towards concerned problems or in certain generalizations for some theoretical formulations.

Objectives of research:

The purpose of research is to discover answers to questions through the application of scientific procedures. The main aim of research is to find out

the truth which is hidden and which has not been discovered as yet. Though each study may have its own specific purpose, nevertheless the objectives fall into a number of following groupings.

1. To gain familiarity with a phenomenon or to achieve new insights into it with the help of exploratory studies.
2. To portray the characteristics of a particular individual, situation or a group with the help of descriptive studies.
3. To determine the frequency with which something occurs or with which it is associated with i.e. the diagnostic research.
4. To test the hypothesis of a casual relationship between variables.

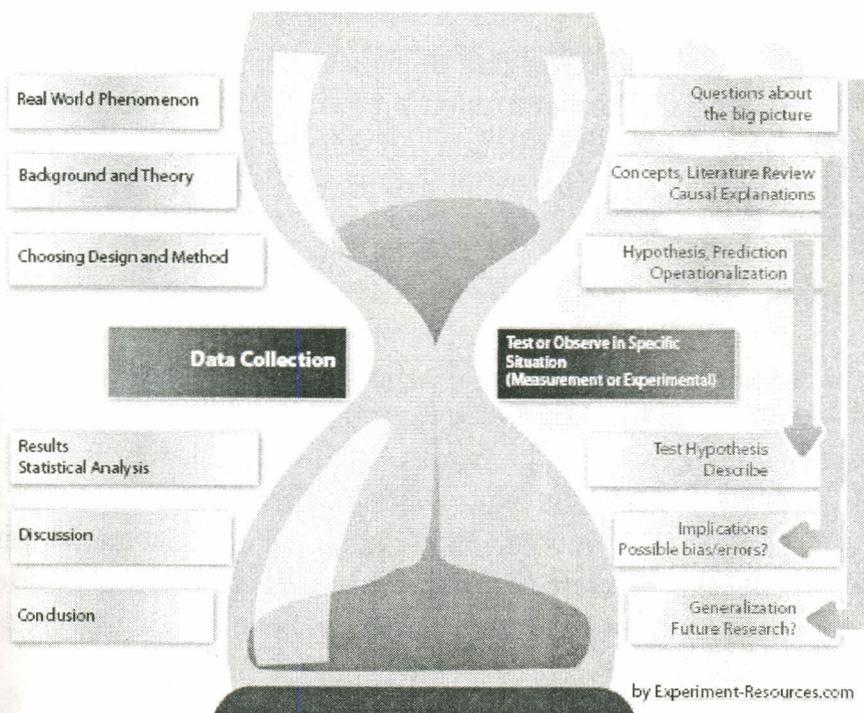
Scientific research relies on the application of the scientific method and a harnessing of curiosity. This research provides scientific information and theories for the explanation of the nature and the properties of the world. It makes practical applications possible. Scientific research is funded by public authorities, by charitable organizations and by private groups, including many companies. Scientific research can be subdivided into different classifications according to their academic and application disciplines. Scientific research is a widely used criterion for judging the standing of an academic institution, such as business schools, but some argue that such is an inaccurate assessment of the institution.

Research in the humanities involves different methods such as for example hermeneutics and semiotics, and a different, more relativist epistemology. Humanities scholars usually do not search for the ultimate correct answer to a question, but instead explore the issues and details that surround it. Context is always important, and context can be social, historical, political, cultural or ethnic. An example of research in the humanities is historical research, which is embodied in historical method. Historians use primary sources and other evidence to systematically investigate a topic, and then to write histories in the form of accounts of the past.

Steps in research:

The steps of the scientific process has a structure similar to an hourglass – The structure starts with general questions, narrowing down to focus on one specific

aspect, then designing research where we can observe and analyze this aspect. At last, the hourglass widens and the researcher concludes and generalizes the findings to the world.



Elements in Scientific Research

The major steps in conducting research are:

- Identification of research problem
- Literature review
- Specifying the purpose of research
- Data collection
- Analyzing and interpreting the data
- Reporting and evaluating research

The steps generally represent the overall process, however they should be viewed as an ever-changing process rather than a fixed set of steps. Most researches begin with a general statement of the problem, or rather, the purpose for engaging in the study. Research in all disciplines and subjects, not just

science, must begin with a clearly defined goal. This usually, but not always, takes the form of a hypothesis. For example, an anthropological study may not have a specific hypothesis or principle, but does have a specific goal, in studying the culture of a certain people and trying to understand and interpret their behavior.

The whole study is designed around this clearly defined goal, and it should address a unique issue, building upon previous research and scientifically accepted fundamentals. Whilst nothing in science can be regarded as truth, basic assumptions are made at all stages of the research, building upon widely accepted knowledge.

The literature review identifies flaws or holes in previous research which provides justification for the study. The purpose of the research identifies a specific hypothesis. The researcher(s) collects data to test the hypothesis. The researcher(s) then analyzes and interprets the data via a variety of statistical methods, engaging in what is known as Empirical research. Research does require some interpretation and extrapolation of results. In scientific research, there is always some kind of connection between data (information gathered) and why the scientist thinks that the data looks as it does. Often the researcher looks at the data gathered, and then comes to a conclusion of why the data looks like it does.

If the same writer interjects their personal opinion and tries to prove or disprove a hypothesis, then they are moving into the area of genuine research. Science tends to use experimentation to study and interpret a specific hypothesis or question, allowing a gradual accumulation of knowledge that slowly becomes a basic assumption.

The results of the data analysis in confirming or failing to reject the Null hypothesis are then reported and evaluated. At the end, the researcher may discuss avenues for further research. Generally a hypothesis is used to make predictions that can be tested by observing the outcome of an experiment. If the outcome is inconsistent with the hypothesis, then the hypothesis is rejected. However, if the outcome is consistent with the hypothesis, the experiment is said to support the hypothesis. This careful language is used because researchers recognize that alternative hypotheses may also be consistent with the observations. In this sense, a hypothesis can never be

proven, but rather only supported by surviving rounds of scientific testing and, eventually, becoming widely thought of as true.

A useful hypothesis allows prediction and within the accuracy of observation of the time, the prediction will be verified. As the accuracy of observation improves with time, the hypothesis may no longer provide an accurate prediction. In this case a new hypothesis will arise to challenge the old, and to the extent that the new hypothesis makes more accurate predictions than the old, the new will supplant it. Researchers can also use a null hypothesis, which state no relationship or difference between the independent or dependent variables. A null hypothesis uses a sample of all possible people to make a conclusion about the population.

Research Methods:

The goal of the research process is to produce new knowledge, or deepen understanding of a topic or issue. This process takes three main forms

- Exploratory research, which structures and identifies new problems
- Constructive research, which develops solutions to a problem
- Empirical research, which tests the feasibility of a solution using empirical evidence

Research is considered to be of two types: Primary research and Secondary research i.e. original research or Summary, collation and/or synthesis of existing research. Qualitative and quantitative methods are used in the collection of data.

Qualitative research helps in understanding of human behavior and the reasons that govern such behavior. Asking a broad question and collecting word-type data that is analyzed searching for themes. This type of research looks to describe a population without attempting to quantifiably measure variables or look to potential relationships between variables. It is viewed as more restrictive in testing hypotheses because it is extremely expensive and time consuming, and typically limited to a single set of research subjects. Qualitative research is often used as a method of exploratory research as a basis for later quantitative research hypotheses.

Quantitative research helps in systematic empirical investigation of quantitative properties and phenomena and their relationships. Asking a narrow question and collecting numerical data to analyze utilizing statistical methods. The quantitative research designs are experimental, correlational, and survey (or descriptive). Statistics derived from quantitative research can be used to establish the existence of associative or causal relationships between variables. The Quantitative data collection methods, rely on random sampling and structured data collection instruments that fit diverse experiences into predetermined response categories. They produce results that are easy to summarize, compare, and generalize. Quantitative research is concerned with testing hypotheses derived from theory and/or being able to estimate the size of a phenomenon of interest. Depending on the research question, participants may be randomly assigned to different treatments. If this is not feasible, the researcher may collect data on participant and situational characteristics in order to statistically control for their influence on the dependent, or outcome, variable. If the intent is to generalize from the research participants to a larger population, the researcher will employ probability sampling to select participants.

In this way research is often conducted using the hourglass model structure of research. The hourglass model starts with a broad spectrum for research, focusing in on the required information through the methodology of the project (like the neck of the hourglass), then expands the research in the form of discussion.

In conclusion one can say, the typology of research can be looked from three perspectives- applications, objectives, and the inquiry process. Research study can be carried out with four objectives: to describe a situation or phenomenon or problem or issue, to establish or explore a relationship between two or more variables, to explain why certain things happen the way they do and to examine the feasibility of conducting the study. This could be done quantitatively and qualitatively.

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