

## Research Introduction

Research is a systematic process of collecting and logically analyzing data for some purpose.

- 1) Most of us tend to rely on several sources, including personal experience, expert opinion, tradition, intuition, common sense, and beliefs about what is right or wrong.
- 2) The ultimate aim of **science** is the generation and verification of theory.
  - a) A **theory** predicts and explains natural phenomena.
    - i) Something experienced—a fact or occurrence that can be observed.
    - ii) Something notable—something that is out of the ordinary and excites people's interest and curiosity.
  - b) In philosophy, phenomenon is something perceived or experienced, especially an object as it is apprehended by the human senses as opposed to an object as it intrinsically (belonging to something as one of the basic and essential elements that make it what it is) is in itself.
  - c) A theory should meet certain criteria.
    - i) A theory should provide a simple explanation of the observed relations relevant to a particular problem.
    - ii) A theory should be consistent with both the observed relations and an already established body of knowledge.
      - (1) A theoretical statement is the most efficient and probable account of the evidence accumulated through prior research.
    - iii) A theory is considered a tentative explanation and should provide means for verification and revision.
    - iv) A theory should stimulate further research in areas which need investigation.
- 3) The Research Process
  - a) Selection of a general problem.
  - b) Review the literature on the problem.
  - c) Select the specific research problem question, or hypothesis.
    - i) If quantitative research, select a design and methodology to be used.
    - ii) If qualitative research, the research problem or questions are a preliminary guide and will become more specific as the research progresses.
  - d) Collect the data.
  - e) Analyze and present or display data.
  - f) Interpret the findings and state conclusions or generalizations regarding the problem.

### Quantitative and Qualitative Research

- 1) Two levels of discourse.
  - a) Quantitative and qualitative refer to distinctions about the nature of knowledge: how one understands the world and the ultimate purpose of the research.
  - b) The terms refer to research methods.
    - i) How data are collected and analyzed.
    - ii) The type of generalizations derived from the data.
- 2) Distinction between quantitative and qualitative research is the form of data presentation.
  - a) Quantitative presents statistical results represented with numbers.
  - b) Qualitative research presents facts in a narration with words.

- 3) Quantitative and qualitative research methods are based on different assumptions about the world, the research purpose, research methods, prototypical studies, the research role, and the importance of context in the study.
- a) Assumptions about the world.
    - i) Quantitative research is based on a philosophy which assumes there are social facts with a *single objective reality*, separated from the feelings and beliefs of individuals.
    - ii) Qualitative research is based more on what is called a “naturalistic-phenomenological philosophy which assumes that *multiple realities* are socially constructed through individual and collective definitions of the situation
  - b) Research purpose.
    - i) Quantitative research seeks to establish relationships and explain *causes* of changes in measured social facts.
    - ii) Qualitative research is more concerned with *understanding* the social phenomenon from the participants’ perspectives—occurs through the researcher’s participation in the life of those actors in a research role or through historical empathy with participants in past social events.
  - c) Research methods and process.
    - i) Quantitative—there is an established set of procedures and steps that guide the researcher.
    - ii) Qualitative—there is greater flexibility in both the methods and the research process.
      - (1) Typically a qualitative researcher uses an emergent design and makes decisions about the data collection strategies during the study.
      - (2) Quantitative—choose methods as part of a preestablished design before data collection.
  - d) Prototypical studies.
    - i) Quantitative—employs experimental or correlational designs to reduce error, bias, and extraneous variables.
    - ii) The prototypical qualitative study of ongoing events is an ethnography, which helps readers understand the multiple constructions of reality (definitions of the situation by the persons studied).
    - iii) The prototypical study of past events is *historical research* using analytical research techniques to reconstruct and understand the multiple realities of past events.
    - iv) Qualitative—takes into account subjectivity in data analysis and interpretation.
  - e) Researcher role.
    - i) Quantitative—detached from the study to avoid bias; qualitative become “immersed” in the situation, present or past, and the phenomenon being studied.
    - ii) Quantitative—collects data with an instrument; qualitative—emphasizes the importance of data collected by a skilled, prepared person.
    - iii) Qualitative research is marked by “disciplined subjectivity,” self-examination, criticism of the quality of the data obtained, and the problems encountered.
  - f) Importance of the context in the study.
    - i) Quantitative—attempts to establish *universal context-free generalizations*; qualitative—believes that human actions are strongly influenced by the settings in which they occur.

- (1) Qualitative—can't understand human behavior without understanding the framework within which the subjects interpret their thoughts, feelings, and actions.
- (2) Qualitative—develops a *context-bound* generalization.

#### Summary of Qualitative.

- 1) Involves an indepth understanding of human behavior and the reasons that govern human behavior.
- 2) Relies on reasons behind various aspects of behavior.
- 3) Investigates the why and how of decision making, as compared to what, where, and when of quantitative research.
- 4) Relies on smaller but focused samples rather than large random samples.
- 5) Unlike quantitative, qualitative does not rely on the analysis of numerical or quantifiable data, but comes in many mediums, including text, sound, still images, and moving images.
- 6) Qualitative is largely exploratory, while quantitative is conclusive.