RESEARCH METHODOLOGY

An Introduction

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RESEARCH METHODOLOGY

An Introduction

Objectives

1)Meaning of Research
2)Objectives of Research
3)Motivation in Research
4)Types of Research
5)Research Approaches
6)Significance of Research
7)Research Methods versus Methodology
8)Research and Scientific Method
9)Importance of Knowing How Research is Done
10)Research Process
11)Criteria of Good Research
12)Problems Encountered by Researchers in India (Self Study)

Meaning of Research

- Research is composed of two terms combined:
  - a prefix **re**
  - a verb **search**
- *Re* means again, a new, over again

- *Search* means to examine closely and carefully, to test and try, to probe

- The two words form a noun to describe *a careful and systematic study in some field of knowledge, undertaken to establish facts or principles*.

- *Research is an organized and systematic way of finding answers to questions*

Meaning of Research

- A 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*."
- A movement from the known to the unknown
- It is voyage of discovery

Meaning of Research

- **Clifford Woody -**

1) *Defining and redefining problems,*
2) *formulating hypothesis or suggested solutions;*
3) *collecting, organising and evaluating data;*
4) *making deductions and reaching conclusions;*
5) *carefully testing the conclusions to determine whether they fit the formulating hypothesis.*

- **D. Slesinger and M. Stephenson in the Encyclopaedia of Social Sciences** -
- *"The manipulation of things, concepts or symbols for the purpose of generalising to extend, correct or verify knowledge, whether that knowledge aids in construction of theory or in the practice of an art."*

Objectives of Research

- To gain familiarity with a phenomenon or to achieve new insights into it.
- To portray accurately the characteristics of a particular individual, situation or a group.
- To determine the frequency with which something occurs or with which it is associated with something else.
- To test a hypothesis of a causal relationship between variables.

Motivation for Research

1) Desire to get a research degree along with its consequential benefits;
2) Desire to face the challenge in solving the unsolved problems, i.e., concern over practical problems initiates research;
3) Desire to get intellectual joy of doing some creative work;
4) Desire to be of service to society;
5) Desire to get respectability

Types of Research

1) Descriptive vs Analytical
2) Applied vs Fundamental
3) Quantitative vs Qualitative
4) Conceptual vs Empirical

1) Descriptive Research Vs Analytical Research

Major purpose of descriptive research is description of the state of affairs as it exists at present (*ex post facto Research*)

Characteristic: The researcher has no control over the variables - he can only report what has happened, or what is happening;

e.g.: frequency of shopping, preferences of people

Methods used: Comparative and Correlation.

In analytical research, the researcher has to use facts or information already available and analyze these to make a critical evaluation of the material.

2) Applied Vs Fundamental Research

Applied Research

- Immediate problem facing a society or an industrial business organization aimed at conclusions
- Example : Market research, design, safety, health, pollution, societal, environmental, industrial, pharmaceutical, etc.

Fundamental Research

- Mainly concerned with generalizations and with the formulation of a theory

3) Quantitative Vs Qualitative Research

Quantitative Research

- Based on the measurement of quantity or amount
- Controlled, rather easy to carry-out
- Objective and repeatable
- Easy to draw conclusions and decisions

Qualitative Research

- is concerned with qualitative phenomenon, i.e., involving quality or kind
- aim is to discover the underlying motives of human behaviour; attitude or opinion research (how people feel or think about a particular subject or institution).
- difficult job; should seek guidance from experimental psychologists.

4) Conceptual Vs Empirical Research

Conceptual Research

- Related to some abstract idea(s) or theory; generally used by philosophers and thinkers to develop new concepts or to re-interpret existing ones

Empirical Research

- Relies on experience or observation alone, without due regard for system and theory. It is data-based research, coming up with conclusions which are capable of being verified by observation or experiment.

- Characterised by the experimenter's control over the variables under study and his deliberate manipulation of one of them to study its effects.

  Evidence gathered through experiments or empirical studies is today considered to be the most powerful support possible for a given hypothesis.

Other Types of Research

1. One Time Research
2. Longitudinal Research
3. Field Research
4. Laboratory Research
5. Simulation Research
6. Clinical Research
7. Diagnostic Research
8. Exploratory Research
9. Historical Research
10. Conclusion Oriented Research
11. Decision Oriented Research
12. Operation Research

Research Method Vs Methodology

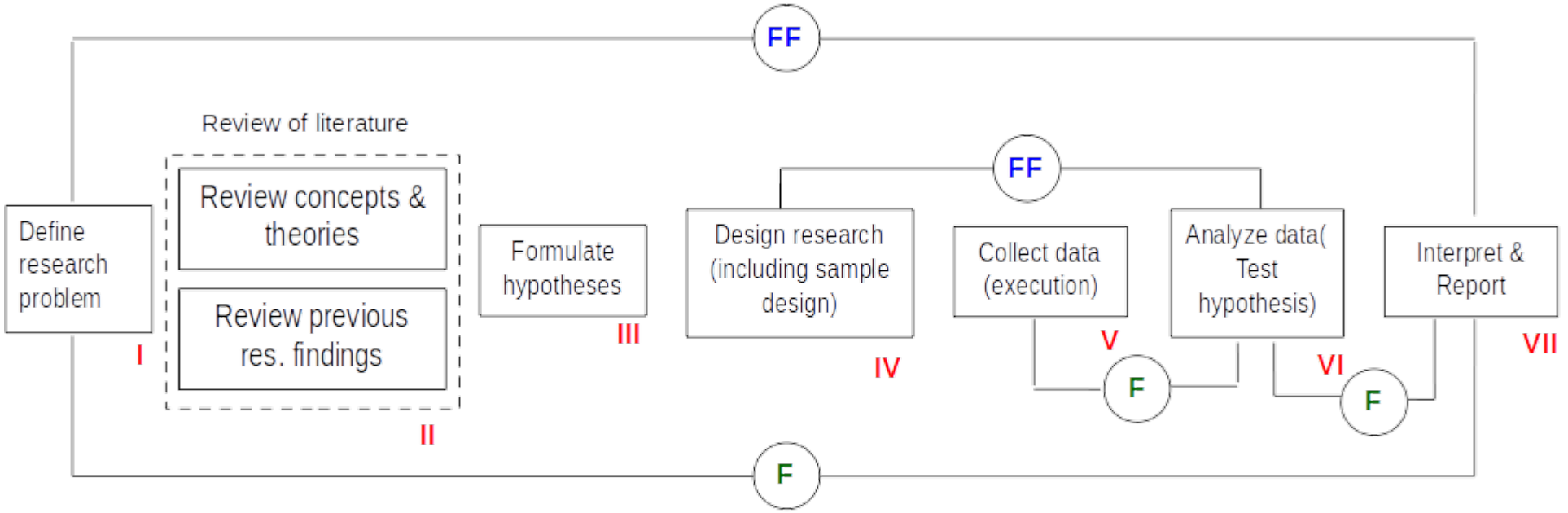
Method – Technique / method adopted to conduct Research.

Can be put in 3 groups-

- Data Collection Methods
- Statistical Techniques – establish relationships between data and unknowns
- Evaluation Methods for accuracy of results.

Methodology – Way in which research problem is solved systematically.

Research Process

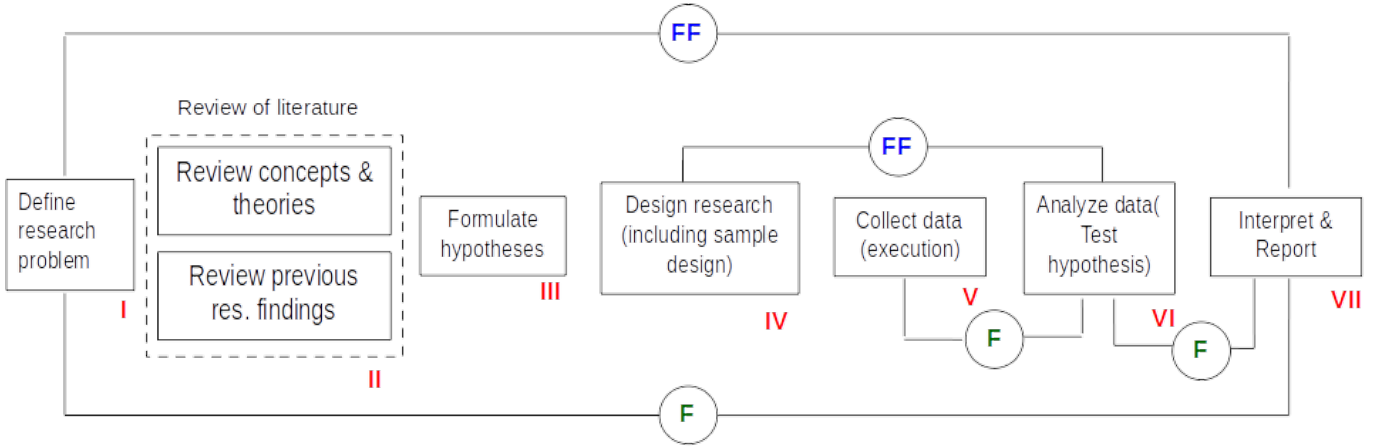


Research Process

The order/sequence concerning various steps provides a useful procedural guideline regarding the research process:

1) Formulating the research problem
2) Extensive literature survey
3) Developing the hypothesis
4) Preparing the research design
5) Determining sample design
6) Collecting the data
7) Execution of the project
8) Analysis of data
9) Hypothesis testing
10) Generalizations and interpretation, and
11) Preparation of the report or presentation of the results, i.e., formal write-up of conclusions reached.

RESEARCH PROCESS IN FLOW CHART



THANK YOU

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