


INTRODUCTION TO RESEARCH

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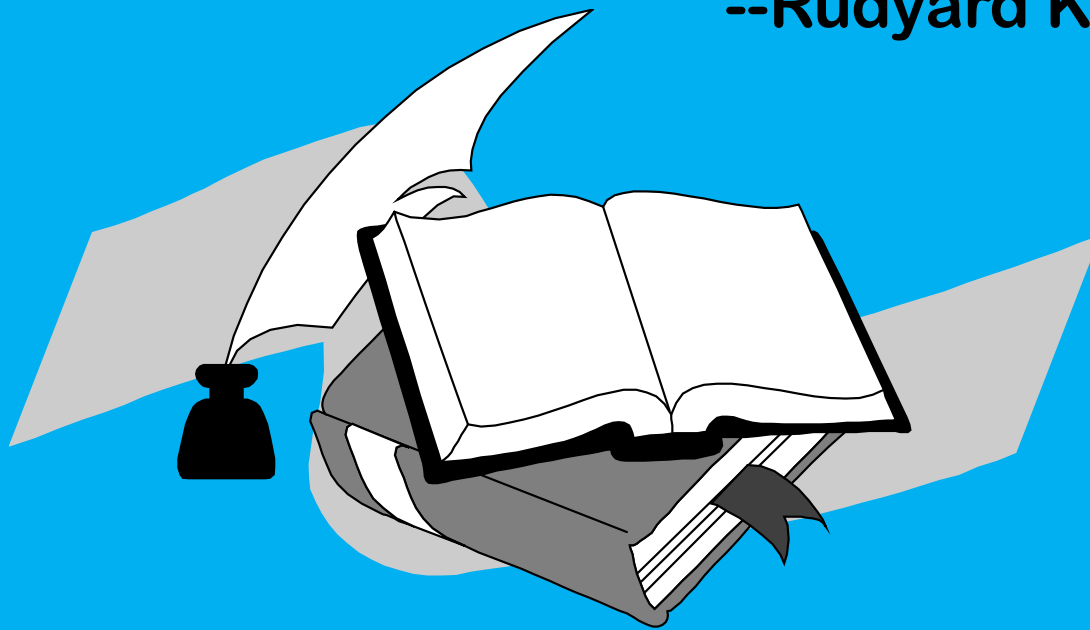
A young man with curly brown hair, wearing a dark zip-up jacket, is shown in profile from the chest up. He is looking towards the right of the frame with a neutral expression. The background is dark and out of focus.

Successful
people always
have two things
on their lips.

1. Silence
2. Smile

**“I keep six honest serving men, (they
taught me all I knew), their names are
what, and why, and when, and how,
and where and who.”**

--Rudyard Kipling



Research?

Research is an **ORGANIZED** and
SYSTEMATIC way of **FINDING**
ANSWERS to **QUESTIONS**.

Research



The word research is composed of two syllables, *re* and *search*.

“*Re*” is a prefix- meaning again, anew or over again

“*search*” is a verb- meaning to examine closely and carefully, to test and try, or to probe.

Together they form a noun describing a careful, systematic, patient study and investigation in some field of knowledge, undertaken to establish facts or principles.

Research

Search for...

information

knowledge

solution



WHAT IS RESEARCH?

Any honest attempt to study a problem systematically or to add to man's knowledge of a problem may be regarded as research.
(Theodorson and Theodorson 1969 cited in Reber 1995, p.663)

Characteristics of Research

- Research is directed towards the **solution of a problem**.
- Research is based upon **observable experience or empirical evidence**.
- Research demands **accurate observation and description**.
- Research involves **gathering new data** from primary sources or **using existing data** for a new purpose.
- Research activities are characterized by **carefully designed procedures**.
- Research requires **expertise** i.e., skill necessary to carry out investigation, search the related literature and to understand and analyze the data gathered.
- Research **is objective and logical**—applying every possible test to validate the data collected and conclusions reached.
- Research involves the **quest for answers** to unsolved problems.
- Research is a **systematic and scientific activity**.
- Research is carefully **recorded and reported**.

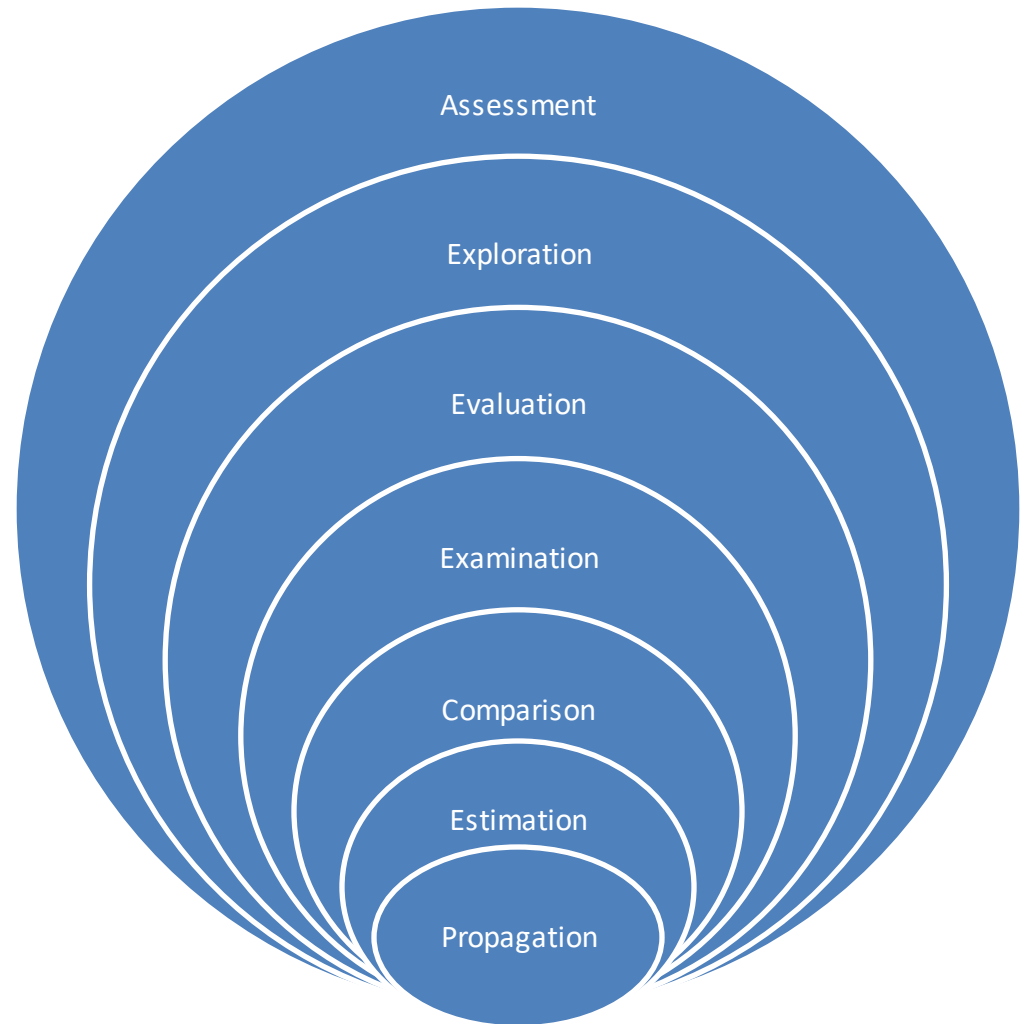
WHY UNDERTAKE RESEARCH?

- To investigate some existing situation or problem.
- To provide solutions to a problem.
- To explore and analyse more general issues.
- To construct or create a new procedure or system.
- To explain a new phenomenon.
- To generate new knowledge.
- A combination of two or more of any of the above.

(Hussey and Hussey 1997)

Objectives OF Research

1. Assessment
2. Exploration
3. Evaluation
4. Examination
5. Comparison
6. Estimation
7. Propagation



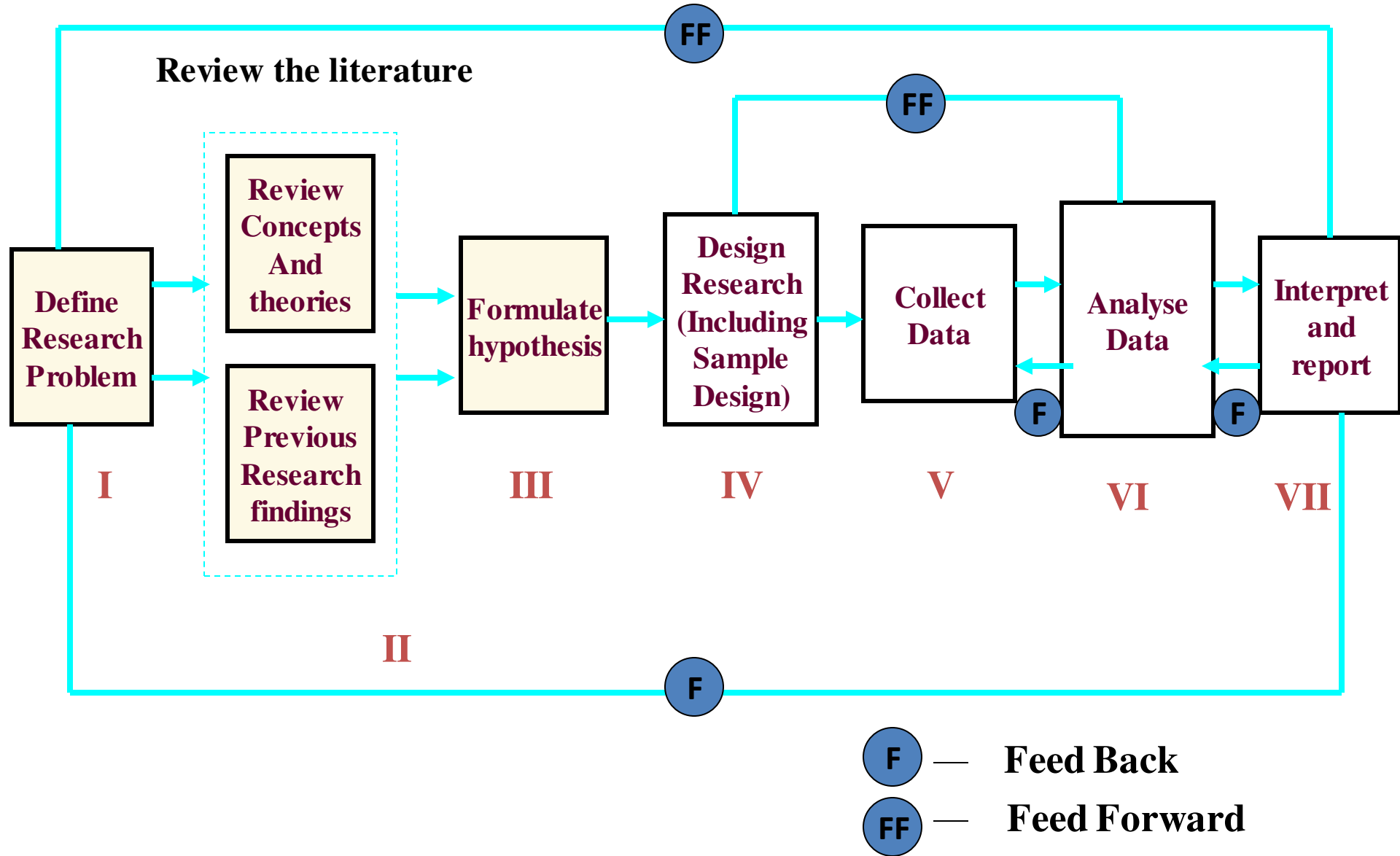
Objectives OF Research

Lev els	Nature of objective	Objective description
1.	Assessment	To observe the situation and infer results
2.	Exploration	To uncover the reality facing a problem
3.	Evaluation	To measure the level of existence
4.	Examination	To test the existence
5.	Comparison	To compare and contrast between given variables
6.	Estimation	To project probable level of happening
7.	Propagation	To declare a concept, theory, system or model

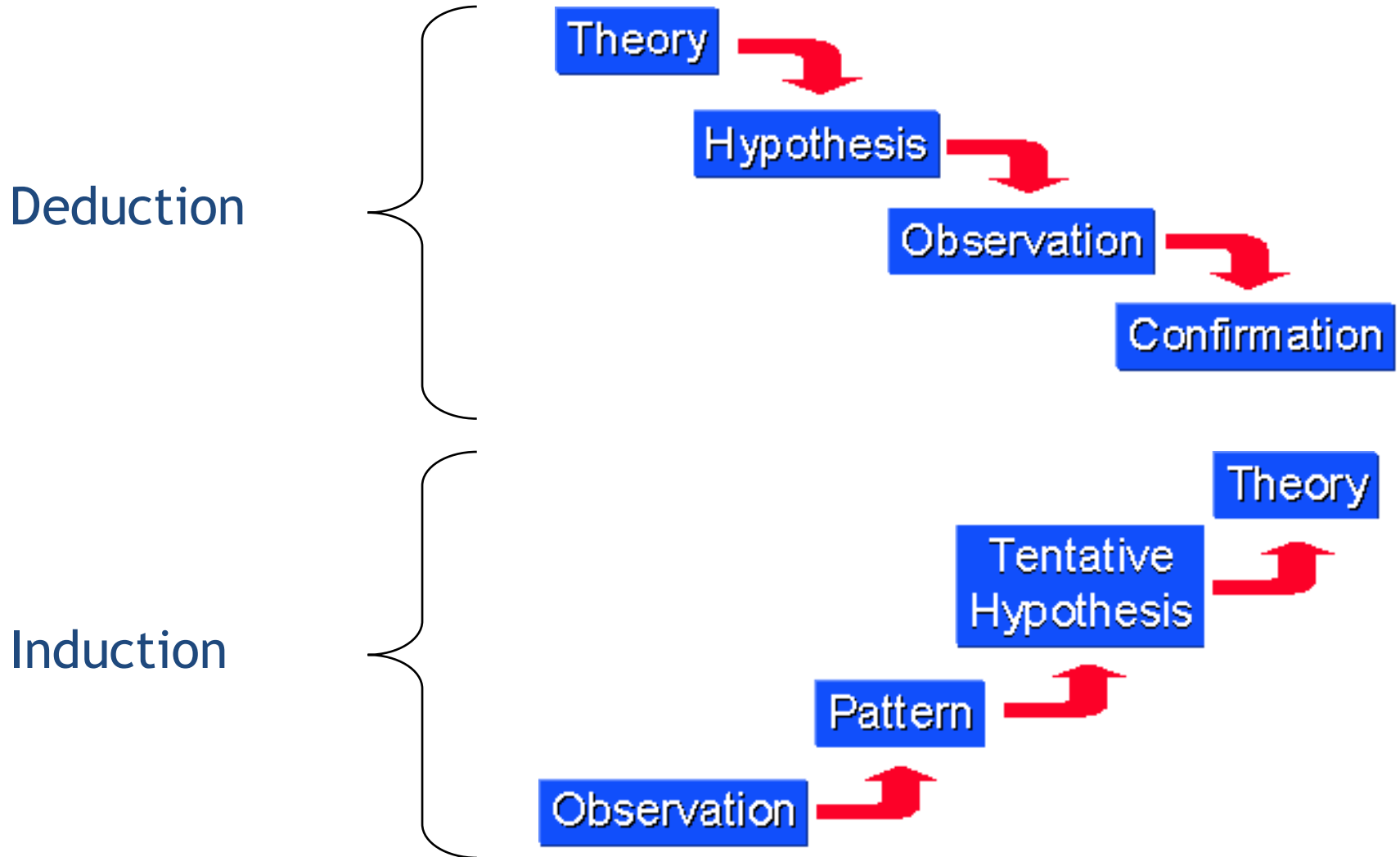
Objectives of Research

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

RESEARCH PROCESS



Deduction and Induction



Logic of Research

{Deductive Vs Inductive}

Deductive Logic	Inductive Logic
The research proceeds from general to specific	The research proceeds from specific to general
Top to bottom research	Bottom to top research
Deduction is a form of argument which is supposed to be conclusive, that is conclusion must necessarily follow from the reason	Inductive logic includes to draw conclusions from one or more particular facts or piece of information/evidence.

Thank You

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Video

TYPES OF RESEARCH

- **Descriptive Research:-**Means description of the state of affairs as it exists at present. Researcher only reports only what has happened or what is happening
- **Applied Research:-** Aims at finding solution for an immediate problem facing a society or an industry/ business organizations
- **Quantitative Research:-**Based on the measurement of quantity or amount. Applicable to phenomena that can be expressed in terms of quantity.
- **Conceptual Research:** - Related to some abstract ideas or theory. Used by philosophers and thinkers to develop new concepts or re-interpret existing ones.

- **Empirical Research:** - Relies on experience or observations alone, often without due regard for system and theory.
- **Qualitative Research:** - Concerned with qualitative phenomenon, i.e. phenomenon relating to or involving quality or kind.
- **Fundamental Research:** - Mainly concerned with generalizations and with the formulation of a theory.
- **Analytical Research:** - Researcher has to use facts on information already available and analyze these to make a critical evaluation of the material.

SCIENTIFIC METHOD

- **Science**
- “ refers to the body of systematic and organised knowledge which makes use of scientific method to acquire knowledge in a particular field of enquiry.
- **Scientific method** is the systematic collection of data (facts) and their theoretical treatment through proper observation, experimentation and interpretation.
- **Scientific method** attempts to achieve a systematic interrelation of facts by experimentation, observation, and logical arguments from accepted postulates and a combination of these three in varying proportions.

BASIC POSTULATES IN SCIENTIFIC METHOD

- **It relies on empirical evidence.**
- **It utilizes relevant concepts.**
- **It is committed to only objective considerations.**
- **It pre-supposes ethical neutrality.**
- **It results into probabilistic predictions.**
- **The methodology is made known.**
- **Aims at formulating scientific theories.**

Social Research

- M.H. Gopal defined it as “it is scientific analysis of the nature and trends of social phenomena of groups or in general of human behavior so as to formulate broad principles and scientific concepts”.

RESEARCH METHODS Vs. RESEARCH METHODOLOGY

- Research Methods:- Refers to the methods/ techniques researchers use in performing research operations.
- Research Methodology:- It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by researcher in studying his research problem along with the logic behind them.

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Comparison



Research Methods

- **research methods are the methods by which you conduct research into a subject or a topic**
- **Research methods involve conduct of experiments, tests, surveys and the like**
- **research methods aim at finding solutions to research problems**

Research Methodology

- **research methodology explains the methods by which you may proceed with your re**
- **research methodology involves the learning of the various techniques that can be used in the conduct of research and in the conduct of tests, experiments, surveys and critical studies search**
- **research methodology aims at the employment of the correct procedures to find out solutions**

The hallmarks of scientific research 1-3

1. Purposiveness

Started the research with a definite aim or purpose

2. Rigor

Rigor connotes carefulness, scrupulousness, and the degree of exactitude in research investigations

3. Testability

The manager or researcher develops certain hypotheses on how employee commitment can be enhanced, then these can be tested by applying certain statistical tests to the data collected for the purpose.

The hallmarks of scientific research 4-5

4. Replicability

The results of the tests of hypotheses should be supported again and yet again when the same type of research is repeated in other similar circumstances.

5. Precision and confidence

Design the research in a manner that ensures that our findings are as close to reality

Precision: reflects the degree of accuracy or exactitude of the results on the basis of the sample, to what really exists in the universe.

Confidence: refer to the probability that our estimations are correct, it is important that we can confidently claim that 95% of the time our results will be true and there is only a 5 % chance of our being wrong.

The hallmarks of scientific research 6-8

6. Objectivity

The conclusion drawn through the interpretation of the results of data analysis should be based on facts of the findings derived from actual data, and not on our own subjective or emotional values.

7. Generalizability

Refers to the scope of applicability of the research findings in one organizational setting to other settings

8. Parsimony

Simplicity in explaining the phenomena or problems that occur, and in generating solutions for the problem,

And it can be introduced with a good understanding of the problem and the important factors that influence it.

The hallmarks of scientific research 9-11

9. Controlled- in real life there are many factors that affect an outcome. The concept of control implies that, in exploring causality in relation to two variables (factors), you set up your study in a way that minimizes the effects of other factors affecting the relationship.

10. Systematic- this implies that the procedure adopted to undertake an investigation follow a certain logical sequence. The different steps cannot be taken in a haphazard way. Some procedures must follow others.

11. Valid and verifiable- this concept implies that whatever you conclude on the basis of your findings is correct and can be verified by you and others.

The hallmarks of scientific research 12-15

12. Empirical-this means that any conclusion drawn are based upon hard evidence gathered from information collected from real life experiences or observations.

13. Critical-critical scrutiny of the procedures used and the methods employed is crucial to a research enquiry. The process of investigation must be foolproof and free from drawbacks. The process adopted and the procedures used must be able to withstand critical scrutiny.

14. Validity-it can be stated that a research has highly validity if the study only contains what one wants to study and nothing else. Validity refers to how well the data collection and data analysis of the Research captures the reality being studied. In other words the researcher must obtain the reality of responses of those people who are under the test through comparing their responses with such truth that in deed is truth.

15. Reliability- Supposes that if other person were to repeat a specific research study, he should be able to capture the same results. Reliability demonstrates that the operation of a study, such as the data collection procedures, can be repeated with the same outcome.

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எங்க காலத்தில் Facebook, Whatsapp... எதுவும்
இல்லை... அதனால் நீங்க இப்ப LIKE .. 





7

Characteristics of A Good Researcher



Must be **open-minded** and must also adopt a **critical way of thinking**.



Should be **hard working, diligent, focused and devoted** to the specific field of interest.

3

Updating the knowledge is of utmost importance and can be accomplished in several ways, such as following the current literature, attending conferences or exchanging ideas with colleagues working in a relevant field.



Must be **resourceful and inventive** in order to transform the scientific queries and hypotheses into a realizable protocol.



Has to acquire an excellent **knowledge of the measurement tools and techniques** of the relevant field.

6

When interprets and presents results, the researcher must be **precise and honest.**

Misinterpretation or even falsification of data will not only lead to deviation of future research and invalidate the work of future researchers

7

Although there is no need to be a statistician, the researcher has to be **aware of basic mathematical and statistical principles** in order to be able to appreciate and interpret results, up to a certain level, and to study critically the findings of other works.

Ethics in Research

- Avoidance of Plagiarism
- Liberty to samples for participation in research
- Confidentiality of respondents' data
- Reporting should be unbiased.

Thank You!





Review of Literature

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Video



When the
student
is ready,
the **master**
appears.

...Buddhist Proverb



WisdomWinds

Review of Literature

Review of literature is traditionally considered a systematic and critical review of the most important published and unpublished scholarly literature on a particular topic.

Definition

A critical summary of research on a topic of interest, generally prepared to put a research problem in context or to identify gaps and weaknesses in prior studies so as to justify a new investigation.

Areas of literature review

Literature review is required in the following four stages:

- **Problem formulation**—which topic or field is being examined and what are its component issues?
- **Literature search**—finding materials relevant to the subject being explored
- **Data evaluation**—determining which literature makes a significant contribution to the understanding of the topic
- **Analysis and interpretation**—discussing the findings and conclusions of pertinent literature

Purpose of a literature review

- To establish a theoretical framework for your topic / subject area
- To define key terms, definitions and terminology
- To identify studies, models, case studies etc supporting your topic
- To define / establish your area of study, ie your research topic.
- To justify the research
- To ensure non-replication of a study
- To enable the researcher to learn from previous theory on the subject
- To illustrate how the subject has been studied previously
- To highlight flaws in previous research
- To outline gaps in previous research
- To help refine, refocus or even change the topic

Sources of Review of Literature

- 1) Primary sources
- 2) Secondary sources
- 3) Tertiary sources

Primary sources

Primary sources are **original materials** on which other research is based.

They are usually the **first formal appearance** of results in physical, print or electronic format.

They **present original thinking**, report a discovery, or share new information.

Primary sources

- **Literary creation:** (novels, short stories, poems, etc.)
- **Artifacts:** (coins, plant specimens, fossils, tools, clothing, all from the time under study)
- **Audio recordings** (e.g. radio programs),
- **Diaries,**
- **Internet communications on email,**
- **Listservs,**
- **Interviews** (e.g., oral histories, telephone, e-mail),
- **Journal articles,**
- **Letters.**

Primary sources

- **Original Documents** (i.e. birth certificate, will, marriage license, trial transcript),
- **Patents, Photographs,**
- **Proceedings of Meetings, conferences and symposia;**
- **Records of organizations, government agencies** (e.g. annual report, treaty, constitution, government document);
- **Speeches,**
- **Survey Research** (e.g., market surveys, public opinion polls),
- **Video recordings** (e.g. television programs),
- **Works of art, architecture, literature, and music,**
- **Web site.**

Secondary sources

A secondary source is a source that provides non-original or secondhand data or information.

Secondary sources describe, discuss, interpret, comment upon, analyze, evaluate, summarize, and process primary sources.

Secondary sources are not evidence, but rather commentary on and discussion of evidence.

Secondary sources

- **Bibliographies** (also considered tertiary),
- **Biographical works,**
- **Commentaries, criticisms,**
- **Dictionaries, Encyclopedias** (also considered tertiary),
- **Histories,**
- **Literary criticism such as Journal articles,**
- **Magazine and newspaper articles,**
- **Monographs, other than fiction and autobiography,**
- **Textbooks** (also considered tertiary),
- **Web site** (also considered primary).

Tertiary sources

A tertiary source is an index and/or textual consolidation of primary and secondary sources. Tertiary sources consist of information which is a distillation and collection of primary and secondary sources.

- Almanacs;
- Bibliographies (also considered secondary);
- Chronologies;
- Dictionaries and Encyclopedias (also considered secondary);
- Directories;
- Fact books;
- Guidebooks;
- Indexes, abstracts, bibliographies used to locate primary and secondary sources;
- Manuals;
- Textbooks (also be secondary).

Benefits of Literature Review

- It helps to gain an impression about the important aspects of the research problem
- It helps to identify the relationship between concepts
- It provides an up-to-date understanding of the research problem
- It helps to identify data sources that other researchers have used
- It helps to identify the methods used in previous research on the topic
- It helps to identify and become familiar with the style of writing
- It sharpens the research focus
- It provides comparisons for your own research findings
- It helps to avoid incidental plagiarism