

**PHILOSOPHY OF  
RESEARCH METHODOLOGY  
(SOCIAL SCIENCES)**

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# STRUCTURE OF PRESENTATION

- WHY DO WE NEED TO KNOW ABOUT THE PHILOSOPHY OF RESEARCH METHODS
- WAYS OF KNOWING & HISTORY OF SCIENCE
- SOCIAL SCIENCES
- SUBJECT MATTERS OF SOCIAL SCIENCES
- PROBLEMS / LIMITATIONS
- VARIOUS METHODS / APPROACHES



You are in the process of becoming  
**scholars / scientists**

Right Attitude & Commitment towards  
knowledge production

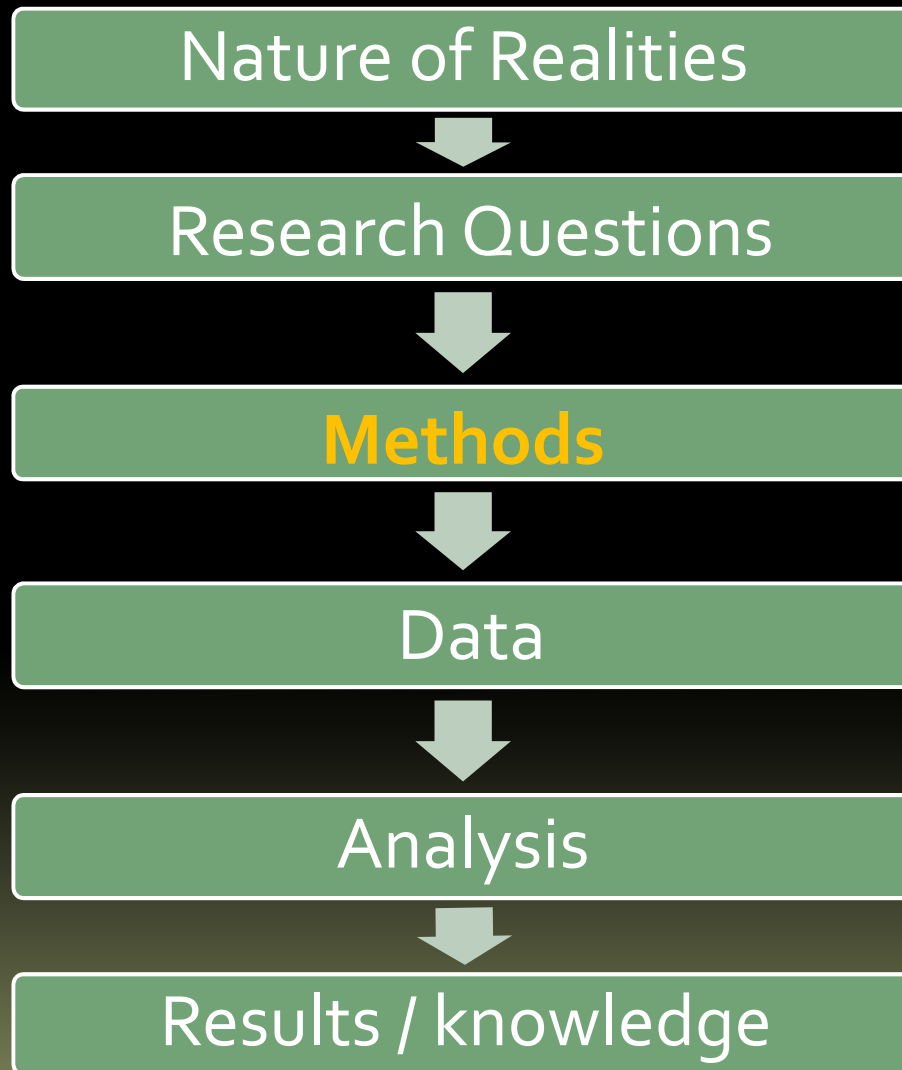
## WHY DO WE NEED TO KNOW ABOUT THE PHILOSOPHY OF RESEARCH METHODS

- To make us aware and practice of **the way** of science in doing research
- Be serious and committed when doing scientific research
- Especially when choosing and applying research method/s
- The underlying reasons / justification for choosing a certain research method and not others
- To enjoy the freedom in choosing & designing research methods / to admit the limitation
- To make a good social scientists – Attitude & Commitment

# PHILOSOPHY OF RESEARCH METHODOLOGY

- **Research Methods**
  - **Ways of doing research / Methods used to do research**
- **Philosophy**
  - **Thoughts / Applying rational or logical thinking**
- **Philosophy of Research Methodology**
  - **Thoughts that form the basis for various ways of doing research**
  - **Thoughts that justify research methodology**
  - **Rationale for using certain methods in research**

# Scientific ways of producing knowledge



# Science / Social sciences

- Observation-based knowledge
- Often changing / Falsifiable

❑ **SCIENCE – GENUINE KNOWLEDGE /TRUTH**

❑ **TO UNDERSTAND / EXPLAIN - THE WAY ANY REALITIES / PHENOMENON OPERATE**

- **Optimism** about Perfectibility of Knowledge and achievement of progress through intellectual effort
- **Confidence** in discovering causality – the way the natural and social world operates

# Science and Research

- NO SCIENCE WITHOUT RESEARCH
- Research is the cornerstone of any science
- It refers to the organized, structured, and purposeful investigation
- Aimed at discovering, interpreting, and revising human knowledge on different aspects of the natural /social/human world by someone first hand
- Structured attempt at gaining knowledge



# What is Research

**“Research is to see what everybody else has seen,  
and to think what nobody else has thought”**

**Albert Szent-Gyorgyi**

Hungarian physiologist who won the Nobel Prize in  
Physiology or Medicine in 1937

**Going beyond personal experience, thoughts,  
feelings and opinions**



**Basis of scientific knowledge  
production**

**Philosophy of Rationalism**

**Philosophy of Empiricism**



# SCIENCE : RATIONALISM



Faith in the autonomy of reason /rationalism

- Conviction that principles governing nature, man and society are knowable through Reasoning- Mind /Thinking is the starting point
- Rene Descartes (CARTESIAN)  
“ I THINK, THEREFORE I AM”

# Empirical Science/**Empiricism**

Scientists are more inspired by Newton's scientific method of discovery rather than Descartes' "reason"

Not by abstraction and definition (via reasoning) but by **the method of observation**

**Based on Facts (Observable facts)**

# Empirical Science

- Newtonian discovery provided a rational foundation for **empirical science**
- **Empirical ways and means of knowledge production and mathematical confirmation as exemplified by Newtonian Physics alone became recognized as 'scientific method.'**
- **Forms of knowledge based on non-empirical ways of knowing and nonmathematical ways of proving thus got excluded from science**

## Empiricism / Positivism

Application of scientific method in understanding and explaining social world

Auguste Comte (SOCIOLOGIST)

“Positive philosophy” of science held that **ONLY** through objective, scientific method we could understand and solve society’s problems, and make progress toward enlightenment

# Production of social knowledge

## The positivist method / empiricism : (Basic Assumptions)

Natural = Social (their existence governed by law)

- Unity of Science: All sciences must follow the same rules
- Direct observation (Experience) rather than rational speculation should be the basis of scientific discovery
- Observable facts of Social World

# The general elements of positivist philosophy

- **Methodological:** all research should be quantitative, and that only research which is quantitative can be the basis for valid generalisations and laws
- **Causality:** the aim should be to identify causal explanations and fundamental laws that explain human behaviour
- **Operationalisation:** concepts need to be operationalised in a way that enables facts to be measured quantitatively
- **Value-freedom:** the choice of what to study, and how to study it, should be determined by objective criteria rather than by human beliefs and interests
- **Independence:** the role of the researcher is independent of the subject under examination
- **Reductionism:** problems are better understood if they are reduced to the simplest possible elements.



## Perfect Observations (?)

### **Observable facts**

Record only what is directly observed with the senses

Can social scientist free from what their mind says?

### **Value-free Knowledge:**

The researcher must remain free of bias

can social scientists be value-free researcher?

# Production of social knowledge

## Problems in investigating subject matter that is 'social' in nature via Science

- Complexity of the subject matter and its irreducibility (the actual source/cause)

Interrelated phenomena, too many factors may involve to establish any causal sequence

(The chicken or the egg ? (causality dilemma))

- Every social event is unique

# Limitations of Social Science

## COMPLEXITY OF HUMAN SOCIAL WORLD

- **Not an orderly cosmos but chaos**

David Hume - An empirical study of the nature of man, reveals not an identical set of motives, ..

- Real life experiments are necessary for social knowledge to evolve as science. **The lack of possibilities to conduct such experiments prevent the possibility**

# Laws and ability to generalize Human Behavior – Impossible ?

*'In physics, it is possible ...to formulate laws relating to... the expansion of metal when heated. From such laws, the amount of expansion that will occur in particular circumstances can be predicted. However, when a man loses his job and becomes depressed, it does not mean that he will be depressed each time he loses his job, nor can we say that everyone who loses his job becomes depressed' (Parahoo 1997).*

# METHODOLOGY OF SOCIAL SCIENCES

Various research methodology in social sciences need be employed

## Complexity subject matters of social world

- Social behaviors, incidents, social problems, social changes, developments
- Individual, organizations, society, social structures, artifacts
- Tangible behaviors & materials, intangible social meanings
- Cultural, historical and situational differences from place to place

# Social World: Multiple Dimensions

- Attitudes / Emotional / Perception / Ideas
- Culture
- Organization
- Relationships & Processes
  - Social
  - Economical
  - Political
  - Formal
  - Informal

# Multiple levels and properties

## Levels of operation:

- Micro (Individual/Interpersonal)
- Meso (Organizational and Groups)
- Macro (Wider community/ Higher social forces)

## Properties

- Social actor
- Social Organizations
- Process/Emergence/ Negotiation
- Events and practices
- Objective and Subjective elements

# Nature of the social phenomena

- Variety
- Complexity
- Absence of universality
- Dynamism
- Incomprehensibility
- Lack of objectivity
- Qualitative nature
- Difficulty in prediction



# Social Sciences: Diversity

- Variety of Philosophies & Methodologies
  - **Positivist Science / Empirical / quantitative**
  - **Interpretative Science / Understanding of the meanings / Qualitative**
  - **Critical Science / Rationalism**

**EMPIRICISM & RATIONALISM**

# PHILOSOPHICAL FOUNDATIONS

- Positivism
- Hermeneutics / Interpretivism
- Critical Theory
- Realism
- Feminism
- Postmodernism

(Epistemology & Ontology / Aims / Methodology)

# Aims, Approaches & Methods

## Aims:

- Why & How ? - Explanation (Theory/Law?)
- What - Understanding (Social Processes & Meaning)

## Approaches:

- Quantitative
  - Using measuring tools
  - Statistical Relationship
- Qualitative
  - Observation via direct participation
  - Interpretation of Meaning

## Methods :

- Questionnaires
- Interviews
- Participation Observation
- Quasi –Experimental
- Content Analysis

# Varieties of Approaches & Methods

- Quantitative Methods
- Qualitative Methods
- Mixed-method research
  
- All research is quantitative, because anything can be counted - even purely verbal responses, perhaps after sorting comments into similar groups.
  
- All research is qualitative, because answers to even the firmest numeric questions may conceal a variety of meanings.

# The Strategies of Science in Social Sciences

## Induction

Observations → Empirical Generalizations → Theory

## Deduction

Theory → Hypotheses → Observations → Testing of  
Hypotheses → Theory  
(Statistical Analysis /significance)

| Qualitative Research        | Quantitative Research          |
|-----------------------------|--------------------------------|
| Interpretivism              | positivistic                   |
| Inductive                   | deductive                      |
| Holistic                    | particularistic                |
| subjective centered         | objective centered             |
| process oriented            | outcome oriented               |
| anthropological worldview   | natural science worldview      |
| relative lack of control    | attempted control of variables |
| dynamic reality assumed     | static reality assumed         |
| discovery orientated        | verification orientated        |
| Exploratory / Understanding | Confirmatory/ Explanatory      |

## Choose a quantitative method when most following conditions apply

- The research is confirmatory/explanatory rather than exploratory
  - i.e. this is a frequently researched topic, and (numerical) data from earlier research is available..
- You are trying to measure a trend (almost impossible with qualitative research)
- There is no ambiguity about the concepts being measured, and only one way to measure each concept

## Choose a qualitative method when most of these conditions apply

- The research is exploratory/ understanding than explanatory/confirmatory
- You have no or very little data existing research data on this topic.
- The most appropriate unit of measurement is not certain (Individuals? Households? Organizations?)
- The concept is assessed on a nominal scale, with no clear demarcation points.
- You are exploring the reasons why people do or believe something.



# Types of Research Orientations

- Basic Research
- Applied Research
- Exploratory Research
- Descriptive Research
- Explanatory Research
- Case Studies

# Basic & Applied Research

- Social research is often considered to have 2 orientations: applied and basic (or pure)
- In reality, these orientations intertwine
- Most basic research contributes to our understanding of the social world
- Most applied research is applicable to policy situations

# Basic Research

- Focuses on refuting or supporting theories about social life
- Source of most new ideas and theories
- Theory construction, in particular, can take years of work
- Builds these ideas through cycles of research, replication, and revision
- Also produces most of the new methods in the discipline
- Usually the testing ground for new methods and instruments
- Mostly performed & consumed by academics
- Some basic research crosses disciplines
- A small percentage of this research reaches the mass media and public

# Applied Research

- **Conducted to address a specific concern or to develop solution**

## Types of Applied Research

### **Evaluation**

Evaluates a program—does it work?

### **Action Research**

Research tied to social action and change  
Advance causes through public awareness

### **Social Impact Assessment Research**

Estimates the consequences of a planned program

## Exploratory Research

- For new or undiscovered topics
- Uncovers basic facts about the topic
- Formulates and focuses questions for later studies
- Suggests directions and feasibility of future research
- Usually focused on the “what,” not the “why”
- May not have a specific research question

# Descriptive Research

- Presents a picture with specific details of the situation or behavior
- Requires a focused research question/topic
- Focuses on “how” and “who” questions
- Is necessary for good explanatory research

# Explanatory Research

- Focuses on “why”, or the reason a situation or behavior occurs
- Builds on descriptive research, and other explanatory research
- Uses theory & Hypotheses

# Time Dimension-Based Research

Some research neglects the element of time, other research focuses heavily on time

## Cross-Sectional

- Observations at a limited point in time
- Frequently used by social scientists
- Although it does not capture time, change, or process, it is often used in explanatory research

## Longitudinal Research

- Much more expensive and time-consuming than cross-sectional
- Time-series: multiple observations over time of the several units
- **Panel Study**: multiple observations over time of the same units
- **Cohort Study**: multiple observations over time of similar groups



# Case Studies

- Investigates only **one or a few cases** but in depth
- Data is more varied, detailed and extensive
- Just start with research questions
- Researchers do not focus on the discovery of a universal, generalizable truth, nor do they typically look for cause-effect relationships; instead, emphasis is placed on **exploration and description**
- Can be used to build theory
- May be cross-sectional or longitudinal, exploratory, descriptive or explanatory

# Basic form of Research Designs

## Main Types of Quantitative Research

- Survey
- Hypothetical-deductive theory
- Descriptive / Correlations
- Quasi-experimental
- **Experimental**

## Main Types of Qualitative Research

- Case Study (presentation of detailed information)
- Grounded Theory (inductive method)
- Phenomenology (As perceive and understood by human)
- Ethnography (everyday life and practices)
- Historical (study of past and changes)

# Data Collection Methods

- Observation
- Interviews
- Questionnaires
- Focus group discussion
- Projective techniques

# Then What's the Problem?

- Lack of real understanding of the scientific methodology of various methods
- Uncritically adopted scientific methodology to study social phenomenon that may challenge the validity and reliability of methods used and its consequent results
- Blindly applying "standard" data collection and analytic strategies

WHAT KIND OF SCIENCE  
IS SOCIAL SCIENCE?

SOFT SCIENCE OR SLOPPY SCIENCE?

# What social scientists must do?

- Avoid sloppy practices in the name of doing research

Be serious in the practices of knowledge production/ truthful researcher

- Social science knowledge, though 'constructed', but it should be constructed scientifically
- Know the methods /approaches/strategies /theories / the nature of subject matters/ and be critical in your thinking/be objective critically
- **Pseudo Scholars ('cut and paste' knowledge)**

## AT THE END OF THE DAY

### **No Study is perfect, however:**

- Knowledgeable and be skillful
- Professionalism & Honest
- Committed /Keen observer
- Willing to tries new approaches / methods (creative)
- We needs scientific social scientists, not indoctrinated social scientists.

THANK YOU



# WRITING LITERATURE REVIEW

(SOCIAL SCIENCES)

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26 FEBRUARY 2015

# LITERATURE REVIEW

- A GENERAL GUIDE
- MAIN SOURCE
- HART, C. (1998), **DOING A LITERATURE REVIEW: RELEASING THE SOCIAL SCIENCE RESEARCH IMAGINATION**

# STRUCTURES OF THESIS / DESERTATION

- INTRODUCTION TO RESEARCH TOPIC
- **LITERATURE REVIEW**
- OBJECTIVES/ RESEARCH QUESTIONS
- METHODOLOGY
- RESULTS



A literature review **IS NOT** a straightforward summary of everything you have read on the topic and it is not a chronological description of what was discovered in your field.

Combines both summary and synthesis

## LITERATURE REVIEW: WHAT IT IS?

- AN EXAMINATION OF RESEARCH THAT HAS BEEN CONDUCTED IN A PARTICULAR FIELD OF STUDY
- MORE THAN THE SEARCH FOR INFORMATION, AND GOES BEYOND BEING DESCRIPTIVE
- EVALUATING AND SYNTHESISING AVAILABLE INFORMATION RELATED TO YOUR STUDY
- ALL WORKS INCLUDED IN THE REVIEW MUST BE READ, EVALUATED AND ANALYSED

# LITERATURE REVIEW: WHY?

- TO INCREASE YOUR KNOWLEDGE OF THE SUBJECT AREA
- HELP REFINE, REFOCUS OR CHANGE THE TOPIC
- TO DEMONSTRATE YOUR SCHOLARLY ABILITY:
  - ABILITY TO IDENTIFY RELEVANT INFORMATION
  - ABILITY TO OUTLINE THE EXISTING THEORY /KNOWLEDGE

## LITERATURE REVIEW: WHY?

- TO IDENTIFY INFORMATION AND IDEAS THAT RELEVANT TO YOUR RESEARCH
- TO IDENTIFY METHODS THAT COULD BE RELEVANT TO YOUR RESEARCH
- GIVE A THEORETICAL BASE FOR RESEARCH AND HELP YOU DETERMINE THE NATURE OF YOUR RESEARCH

# LITERATURE REVIEW: WHY?

- ILLUSTRATE HOW THE SUBJECT HAS BEEN STUDIED PREVIOUSLY
- GIVE READER/EXAMINERS AN OVERVIEW OF SOURCES YOU HAVE EXPLORE
- TO DEMOSTRATE HOW YOUR RESEARCH FITS INTO THE LARGER FIELD OF STUDY
- AVOID DUPLICATION / AVOIDING FROM MAKING THE SAME MISTAKES AS OTHERS



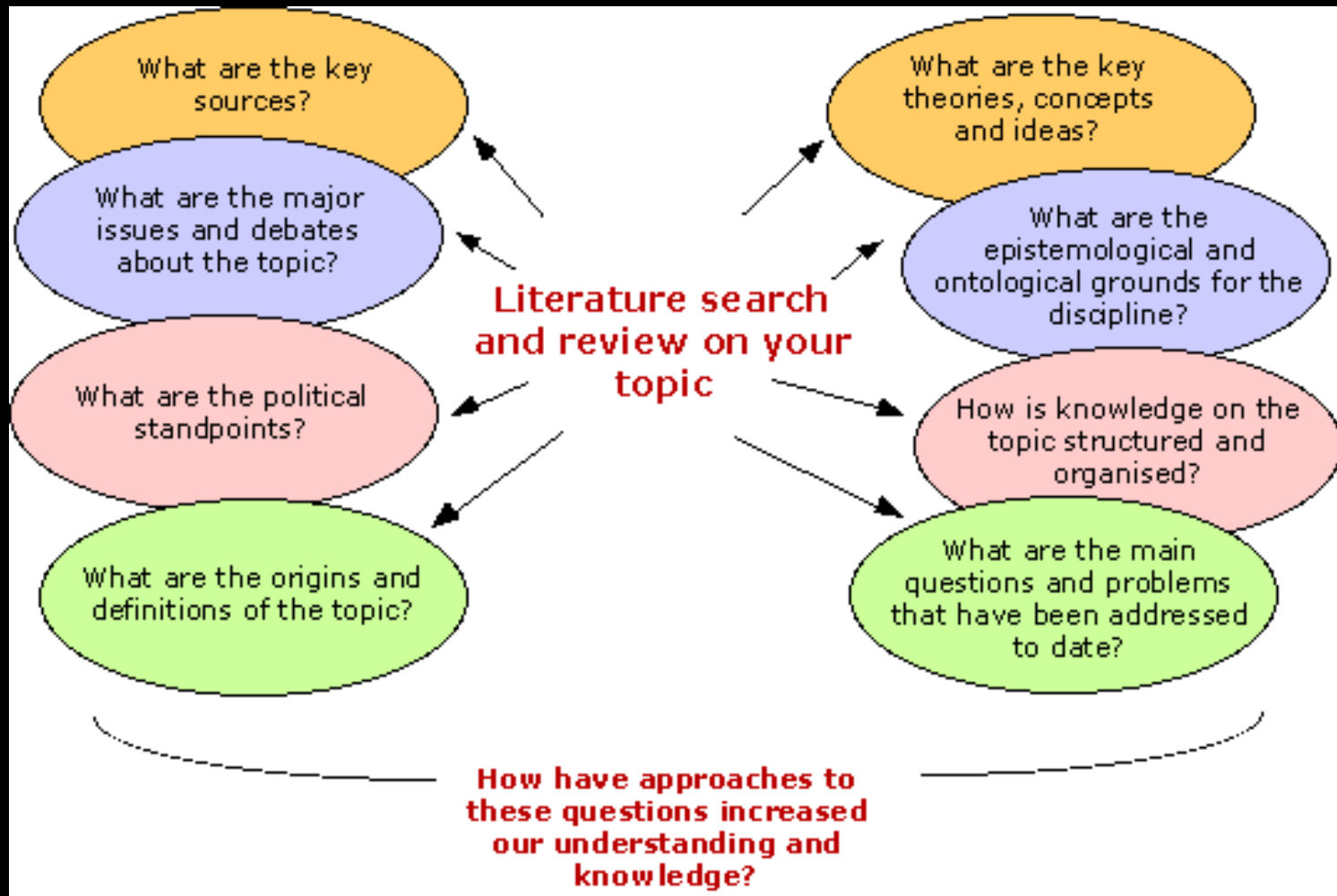
## LITERATURE REVIEW: WHY?

- POSITIONING YOUR WORK IN THE CONTEXT OF PREVIOUS RESEARCH
- CREATING 'RESEARCH SPACE' FOR YOUR WORK / TO IDENTIFY GAPS IN THE LITERATURE
- TO PROVIDE INTELLECTUALL CONTEXT FOR YOUR WORK

# LITERATURE REVIEW: WHY?

- TO CARRY ON FROM WHERE OTHERS HAVE ALREADY REACHED / BUILD ON THE PLATFORM OF EXISTING KNOWLEDGE AND IDEAS
- TO PROVIDE RATIONALE / JUSTIFICATION FOR YOUR STUDY
- IDENTIFY KEY CONTACT / TO IDENTIFY OTHER PEOPLE WORKING IN THE SAME FIELDS / NETWORKING AMONG RESEARCHERS

# QUESTIONS LIT. REVIEW CAN ANSWER



# WHAT YOU NEED TO DO?

- READING BROADLY ON THE TOPIC
- REFINING TOPIC AND ESTABLISH THEORETICAL PERSPECTIVE
- IDENTIFY YOUR RESEARCH QUESTION/S
- IDENTIFY EXTENT AND QUALITY OF WORK ALREADY CARRIED OUT IN THE SUBJECT AREA

## WHAT YOU NEED TO DO?

- DESCRIBE, SUMMARISE, EVALUATE AND CLARIFY THESE LITERATURE
- READ AND CRITICALLY EVALUATE THE INFORMATION THAT YOU LOCATE
- PLAN, ORGANISE AND WRITE CRITICALLY ABOUT THE LITERATURE
- FILE AND STORE YOUR READINGS AND NOTES
- ADDING AND REWRITE LITERATURE REVIEW

# STRUCTURING LITERATURE REVIEW

- IT IS A SYSTEMATIC WRITE-UP
- LITERATURE REVIEW HAS A LOGICAL AND COHERENT STRUCTURE
- THIS STRUCTURE IS CLEARLY APPARENT TO THE READER

## A 'good' literature review:

- is a synthesis of available research
- is a critical evaluation
- has appropriate breadth and depth
- has clarity and conciseness
- uses rigorous and consistent methods
- Based on scholarly literature

## A 'poor' literature review:

- an annotated bibliography
- confined to description
- narrow and shallow
- confusing and longwinded
- constructed in an arbitrary way
- non- scholarly literatures

# WAYS OF STRUCTURING LIT. REVIEW

- **CHRONOLOGICAL ORDER**

The discussion of the research /articles is ordered according to an historical or developmental context.

- **THE 'CLASSIC' STUDIES ORGANISATION**

A discussion or outline of the major writings regarded as significant in your area of study. (Remember that in nearly all research there are 'benchmark' studies or articles that should be acknowledged).



# WAYS OF STRUCTURING LIT. REVIEW

- **TOPICAL OR THEMATIC ORGANISATION**

The research is divided into sections representing the categories or conceptual subjects or your topic. The discussion is organised into these categories or subjects.

- **INVERTED PYRAMID ORGANISATION**

The literature review begins with a discussion of the related literature from a broad perspective. It then deals with more and more specific or localized studies which focus increasingly on the specific question at hand.

# Some general guidelines

- **Avoid:** To organize Lit Review by author, it is simply discussing one author at a time
- Start with the **MOST RECENT** and **WORK BACKWARDS** to the oldest. Many books suggest using a five-year span from the present for sufficient coverage
- Look for **MAJOR** figures in the field and **MAJOR** studies/articles

## DISCUSSING & EVALUATING LIT.REVIEW


- CRITICALLY EXAMINE THE LITERATURE
- ITS NOT JUST LIST WHAT YOU HAVE LOCATED
- MUST LINK THE LITERATURE TO YOUR RESEARCH QUESTION

## DISCUSSING & EVALUATING LIT.REVIEW

- SHOW HOW IT SUPPORTS OR EXTENDS THE TOPIC OR EXISTING KNOWLEDGE IN THE AREA
- HIGHLIGHT THE STRENGTHS, WEAKNESS OR ERROR OF THE LITERATURE (DEFINITIONS, METHODS, DATA..)
- RELATIONSHIPS BETWEEN THE LITERATURE MUST BE IDENTIFIED AND ARTICULATED, IN RELATION TO YOUR FIELD OF RESEARCH
- COULD THE DESIGN OF THE PREVIOUS RESEARCH BE IMPROVED - How? What?

## MAKE YOUR 'VOICE' CLEAR

- NOT JUST PRESENTING OTHERS VIEWS OR ARGUMENTS
- YOUR PERSPECTIVE, POSITION OR STANDPOINT (NOT ONLY IN THE LR, BUT ALSO IN THE THESES AS A WHOLE)
- YOUR THEORETICAL POSITION IS CLEARLY AND STRONGLY STATED
- YOUR LANGUAGE SHOULD INDICATES YOUR ASSESSEMENT OF LITERATURE

- 
- Do NOT just take notes—WRITE AS YOU READ. This cuts down on 90% of your workload.
  - CITE AS YOU GO! You will not have to go back to examine a source.

# Common Errors Made in Lit Reviews

- Review isn't logically organized
- Review isn't focused on most important facets of the study
- Review doesn't relate literature to the study
- Too few references or outdated references cited
- Review isn't written in author's own words
- Review reads like a series of disjointed summaries
- Review doesn't argue a point
- Recent references are omitted

## Plagiarism includes

- Using another writer's words without proper citation
- Using another writer's ideas without proper citation
- Citing a source but reproducing the exact word without quotation marks
- Borrowing the structure of another author's phrases/sentences without giving the source
- **Borrowing all or part of another student's paper**
- **Using paper-writing service or having a friend write the paper**



# TYPES OF LITERATURE

- PRIMARY LITERATURE
  - PREPRINT
  - CONFERENCE PROCEEDINGS
  - INFORMALY PUBLISHED REPORTS
  - JOURNAL ARTICLES

# TYPES OF LITERATURE

- **SECONDARY LITERATURE**
  - REVIEW
  - BOOKS: EDITED COLLECTIONS
  - BOOKS: MONOGRAPHS / SURVEYS
- **OTHER LITERATURE**
  - THESES
  - REPORTS
  - OFICIAL PUBLICATIONS
  - CONFERENCE PROCEEDINGS

# SOURCES OF LITERATURE SEARCHING

- HANDSEARCHING (BOOKS/ JOURNALS)
- REFERENCE LISTS/ FOOTNOTES
- PRINTED BIBLIOGRAPHIES
- WORLD WIDE WEB (e.g. GOOGLE)
- DATABASES OF BOOKS AND ARTICLES
- LIBRARY CATLOGUES
- RESEARCH DATABASES

## STAGES IN DEVELOPING A LIT. REVIEW

- Selecting the topic
- Setting the topic in context
- Looking at information sources
- Using information sources
- Getting the information
- Organizing information (information management)
- Positioning the literature review
- Writing the literature review

# REMEMBER

- Start the first draft of your review early in your first reading; you can build onto it as you go.
- Remember, 'writing is a messy process' and you will be writing many more drafts before you have a coherent and 'critical' account

# BRIEF OVERVIEW OF THESIS STRUCTURE

## 1. Introduction

- What is the research topic about?
- How have you narrowed this down to a particular topic?

## 2. Establish Importance

- Why is your topic important?

## 3. Theoretical Base

- What are the theories?

## 4. Literature Review

## BRIEF OVERVIEW OF THESIS STRUCTURE

### 5. Objectives & Hypotheses

- Is there a clearly stated research question?
- Are there hypotheses?
- Are they clearly stated?
- Are the relationships between the main variables explicit and reasonable?
- Are the hypothesis stated clearly so that they are easily testable and can results be interpreted easily?

## BRIEF OVERVIEW OF THESIS STRUCTURE

### 6. Methodology

- Research design (quantitative / Qualitative)
- Concepts and Operationalization
- Reliability & Validity
- Samples & sampling

### 7. Results and Discussions

- Are the conclusions of the study consistent with the results of the statistical analyses?
- Are alternative conclusions considered?
- Are alternative conclusions that are consistent with the other research discussed and accounted for?



## BRIEF OVERVIEW OF THESIS STRUCTURE

### 8. Limitations and Implications

- Are both the theoretical and practical implications of the results addressed and discussed?
- Can you identify any gaps or areas (research questions) that require further research?
- Can you identify any gaps methodologically that require further testing via research?



**THANK YOU  
&  
BEST WISHES**