

RESEARCH METHODOLOGY

Lecture 3: Philosophy of Research

Philosophy is to research what grammar
is to language

What would you like to know?
How will you proceed to find that out?
How would you know if you know what
you were trying to know?

Philosophy of Research

- Structure of Research
- Paradigms
- Logic Systems
- Quality in Research

Basic Structure of Research

The "hourglass" notion of research

begin with broad questions
narrow down, focus in
operationalize
observe
analyze data
reach conclusions
generalize back to questions

Basic Structure of Research

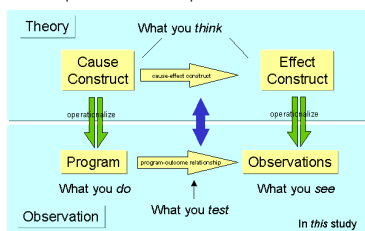
- Hourglass notion of Research
 - Beginning – Research Purpose is decided – R.Q
 - Background, Need and Importance, Problem statement > Research Purpose (R.Q., Objectives, Hypothesis)
 - Middle – Operationalize, Observe, Analyze
 - End – Conclude, Generalize (Nomothetic cases)

Key Components of Causal Research

- The Problem
- The Research Question or Hypothesis or Objectives
- The Program (Cause)
- The units
- The Outcomes (Effects)
- The Design (experiment) >

Basic Structure of Research

- Causal Relations Study – Hypothesis
 - Cause (input) variable – effect (outcome)variable
 - Independent variable – dependent variable



PARADIGMS

- **What is Paradigm?**
- **Main Components of a Paradigm: Ontology, Epistemology & Methodology**

What is a paradigm?

- A broad framework of perception, understanding, belief within which theories and practices operate.

Main Components of Research Paradigm:

(Ontology, Epistemology,
Methodology)

Main Components of Paradigm

- **Epistemology** – ‘The branch of philosophy concerned with the origin, nature, methods & limits of knowledge’
- **Ontology** – Basis of existence, ‘concerned with being’ or reality.

Ontology

- **Ontology** is the starting point of all research, after which one’s epistemological and methodological positions logically follow. A dictionary definition of the term may describe it as the image of social reality upon which a theory is based

Ontology

- Norman Blaikie offers a fuller definition, suggesting that ontological claims are 'claims and assumptions that are made about the nature of social reality, claims about what exists, what it looks like, what units make it up and how these units interact with each other.
- In short, ontological assumptions are concerned with what we believe constitutes social reality' (Blaikie, 2000, p. 8)

Epistemology

- Epistemology, one of the core branches of philosophy, is concerned with the theory of knowledge, especially in regard to its methods, validation and 'the possible ways of gaining knowledge of social reality, whatever it is understood to be.
- In short, claims about how what is assumed to exist can be known' (Blaikie, 2000, p. 8).

Epistemology

Derived from the Greek words *episteme* (knowledge) and *logos* (reason), epistemology focuses on the knowledge-gathering process and is concerned with developing new models or theories that are better than competing models and theories.

Knowledge, and the ways of discovering it, is not static, but forever changing. When reflecting on theories, and concepts in general, researchers need to reflect on the assumptions on which they are based and where they originate from in the first place.

Ways of Knowing about the World: Inquiry Strategies

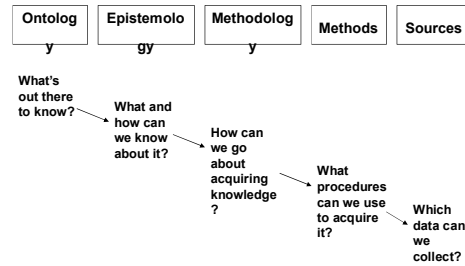
- **Authority** (parents, state, boss, etc)
- **Religion** (faith, belief, standard, morals, etc)
- **Tradition** (we have always done that way, folkways, cultural patterns, we know how to behave in certain situation)
- **Intuition**
- **Creativity**
- **Science and scientific research**

Research Methodology and Method

Methodology refers to general principles which underline how we investigate the social world and how we demonstrate that the knowledge generated is valid.

Research methods refers to the more practical issues of choosing an appropriate research design – perhaps an experiment or a survey – to answer a research question, and then designing instruments to generate data.

Inter-relationship between the building blocks of Research



Adapted from Hay, 2002, pg. 64

PARADIGMS IN SOCIAL RESEARCH

- Positivist
- Post-Positivist
- Constructivist
- Emancipatory, Transformative,
- ...

Logic Systems in Research

- Inductive Logic/ Induction
- Deductive Logic/ Deduction
- ...
- Retroductive Logic/ Retroduction
- Abductive Logic/ Abduction

Quality in Research

- Positivist
- Post-Positivist
 - Validity
- Constructivist
 - Credibility
- Emancipatory, Transformative
 - Eroding Ignorance
- ...

Validity

- Validity of research findings > reasonable construct of relations
- Reasonableness at different levels
 - Internal validity: accuracy of causality assumed in cause-effect construct
 - Conclusion Validity: accuracy of program-outcome construct
 - Construct validity: correctness of operationalization (inter-relation of cause-effect and program-outcome construct)
 - External validity: appropriateness of generalization.

Measures of Research Quality are different for different paradigms

- Positivism/Post-positivism
 - Internal Validity
 - External Validity
 - Reliability
 - Objectivity
- Constructivism (naturalism)
 - Credibility
 - Transferability
 - Dependability
 - Confirmability
- Critical Theory (Emancipatory)
 - Historical Situatedness
 - Eroding Ignorance
 - Transformational Impulse