Basic Issues in two Research Paradigms- Positivism and Phenomenology

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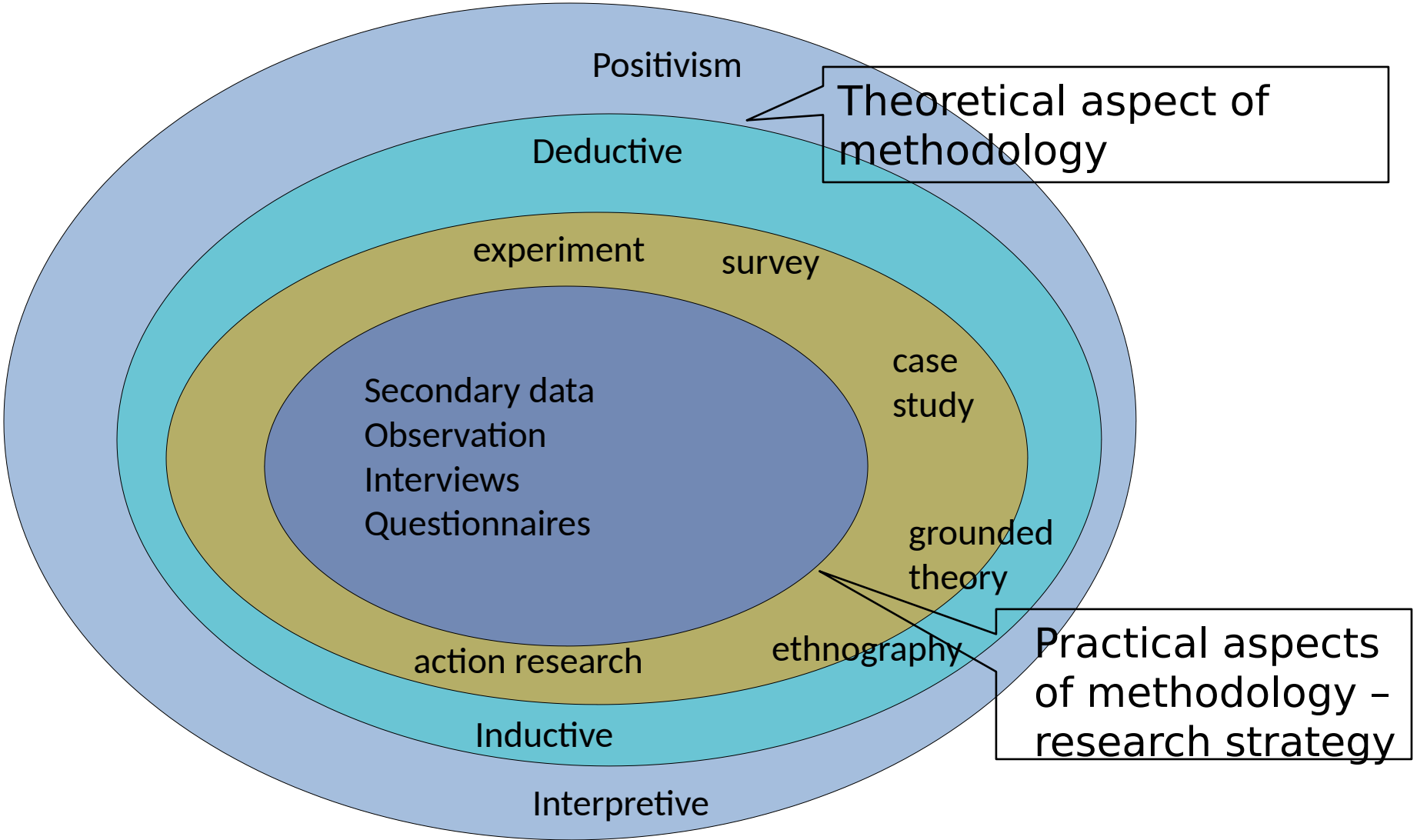
The Research Paradigms – adapted from Saunders (2006:102)



Research: Knowing

Two ontological positions (school of thoughts concerning the fundamental types) point to different epistemological ((what information counts as valid knowledge) assumptions

Scientific rationalism (often referred to as **positivism**) – assumes world is characterized by objective facts

Humanist interpretation (often referred to as

Positivism

Two assumptions:

Reality is external and objective

Knowledge is based on observation

Implications:

- independence
- value freedom
- causality
- hypothetico deductive
- operationalisation
- reductionism
- generalisations

Theoretical perspectives: positivism

Positivism argues that:
Reality consists of what is available to the senses – that is, what can be seen, smelt, touched, etc.
Inquiry should be based upon scientific observation (as opposed to philosophical speculation), and therefore on empirical inquiry.
The natural and human sciences share common logical and methodological principles, dealing with facts and not with values.
Ideas only deserve their incorporation into knowledge if they can be put to the test of empirical experience.

Phenomenology

Rejects the notion of absolute facts

The world is socially created

Focus on meanings

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Interpretivism: phenomenology

The world is socially constructed.
The observer is a party to what is being observed.
Science is driven by human interests.
Focus on meanings – trying to understand what is happening.
Construct theories from the data (inductively).
Use multiple methods to establish different views of the phenomenon.

Summary of positivist and phenomenological paradigms (Easterby-Smith :27)

	Positivist paradigm	Phenomenological paradigm
Basic and beliefs:	The world is external and objective	The world is socially constructed subjective
	Observer is independent	Observer is part of what observed
interests	Science is value-free	Science is driven by human
Researcher should:	focus on facts	Focus on meanings
	look for causality and fundamental laws	try to understand what is happening
	reduce phenomena to simplest elements	look at the totality of each situation
	formulate hypotheses and then test them	develop ideas through induction of data
Preferred methods include:	operatinalising concepts so that they can be measured	using multiple methods to establish different views of phenomena
	taking large samples	small samples investigated in depth or over time

Research methodologies: phenomenological research

Phenomenological research:

- Emphasizes inductive logic.
- Seeks the opinions and subjective accounts and interpretations of participants.
- Relies on qualitative analysis of data.
- Is not so much concerned with generalizations to larger populations, but with contextual description and analysis.

What is in Scientific method

Deduction
Induction
Deduction-induction or
Hypothetico deductive method or
modern scientific method

Deduction

First organized form of logic
Aristotle/Greeks known to be used this logic in early times
Categorical syllogism- major premise, minor premise and conclusion
No way to establish whether major premise is true/false

Induction

Francis Bacon supposed to be father of ‘Induction’

Idea crept in *Novum organum by Bacon*

Observations- findings

Verification of findings possible

Later on various other methods of data collection used

Modern Scientific Method

Combination of inductive and deductive methods
Use of hypothesis- part of deductive method
Process of testing hypothesis- inductive method
Hence, also called Hypotheticodeductive method

Do these processes differ?

Exploring Harappan Civilization
Exploring process of photosynthesis or respiration
Theory of origin of state
Lamark's/Darwin's theory of evolution

CONCEPTS OF SCIENCE

HYPOTHESIS

LAW

THEORY

THEORY

The basic aim of science is to explain a phenomenon under question
Such explanations are called theories
Theory is the general explanations of a phenomenon
For example- Instead of explaining separate behaviours of children a

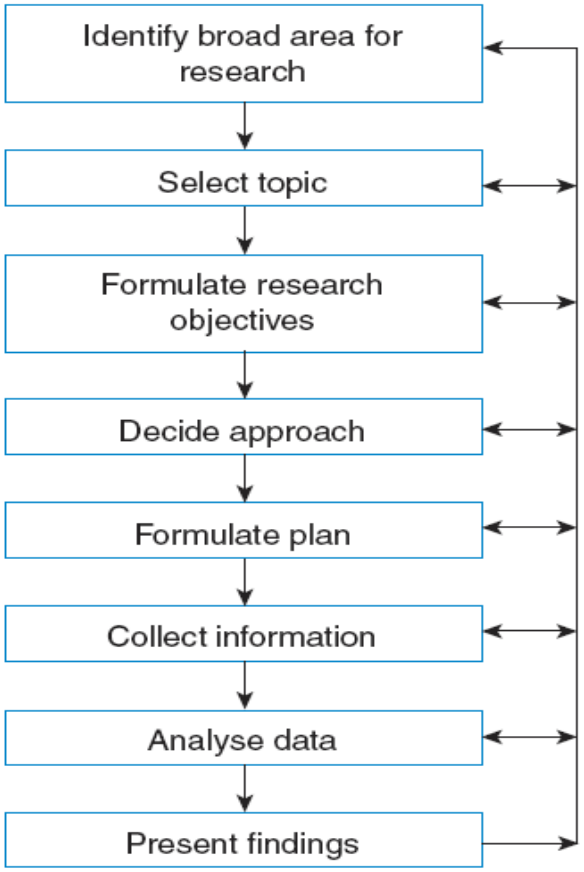
Theory of school failures

Variables like intelligence, verbal and numerical aptitudes, anxiety, social class membership, &motivation

Phenomenon can be explained by specific relations bet each of six variables and school failure or combination of 6 variables and

Overview of the (simplified) research process

Figure 1.1
Overview of the (simplified) research process (adapted from Gill and Johnson, 2002)



Types of Research

Experimental
Survey
Historical
Case study
Action research

Experimental Method

The Experimental Method is a classical form of research that comes from the natural science. The process usually involves:

- The definition of a theoretical hypothesis.
- Select a sample of a population.
- Allocate samples to different experimental conditions.
- Introduce planned change on one variable (the “independent” variable).
- Measure the change of an associated “dependent” variable.
- Control of other variables.

Research methodologies: experimental and quasi-experimental

Experimental and quasi-experimental research places an emphasis on:

- Reproducing the techniques of the laboratory experiment with highly structured methods.
- The generation of initial hypotheses.
- The control of variables.
- Accurate (quantitative) measurement of outcomes.
- Generalization from samples to similar populations.

Research methodologies

Experimental design (example)

Group	*Allocation of subjects*	*Treatment*	*Pre-test*	*Post-test*
1	Random	Yes	Yes	Yes
2		No	Yes	Yes

Test of Hypothesis

Parametric testsetc.- t test, F test
Non parametric tests- chi square, rank correlation

Survey Method

It allows the collection of a large amount of data from a sizeable population in a highly economical way.

It is often conducted on questionnaire to answer those ‘What’ and ‘How’ questions. Its data are standardised and so allow easy comparison.

It gives you more control over the research process, however, it takes time to design and pilot a good questionnaire.

It is essentially cross sectional

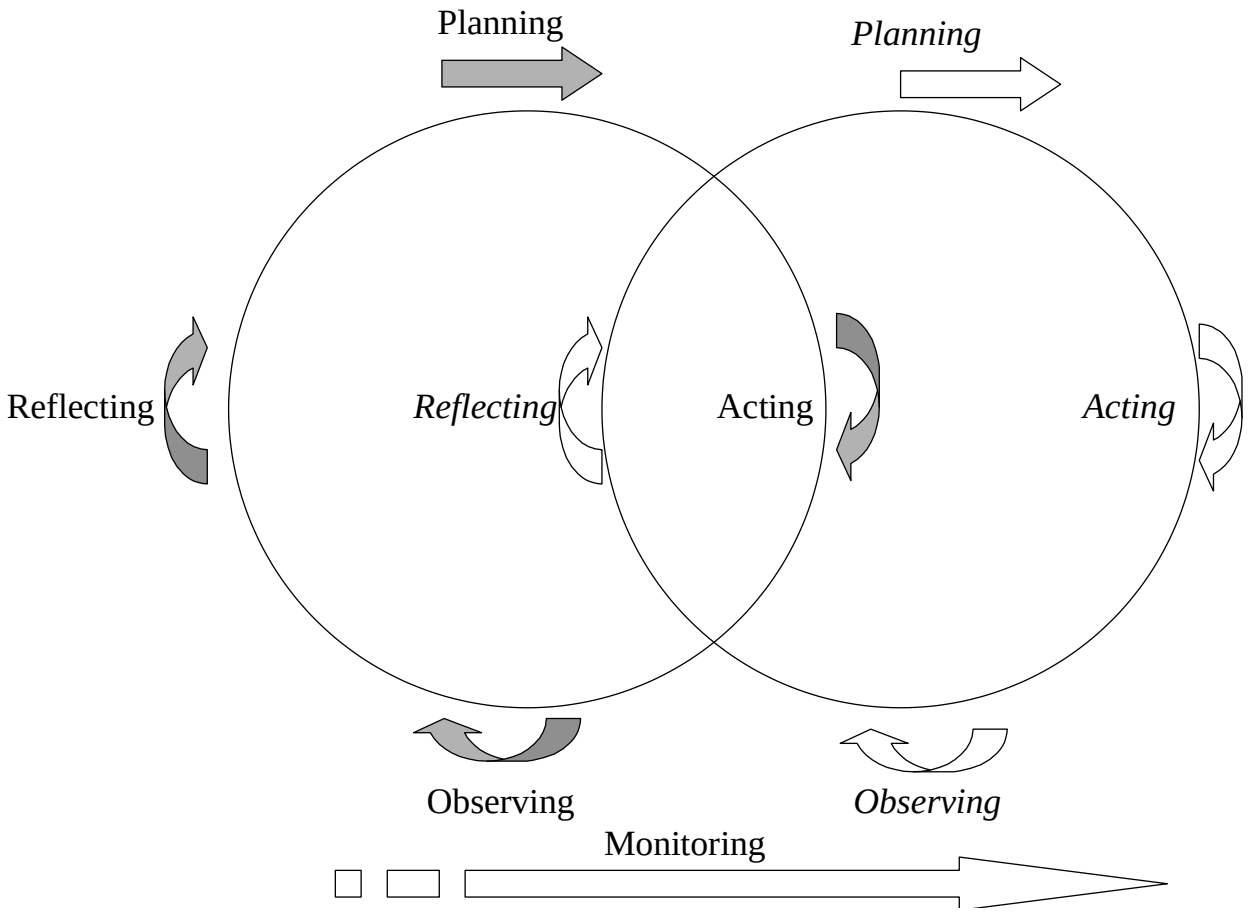
Research methodologies: action research

Action research:

- Places an emphasis on promoting change within an organization.
- Involves both researchers and practitioners (or practitioners as researchers within their own organization).
- Can be highly structured and involve the use of experimental and control groups used to test a hypothesis.
- Can also be quite unstructured and used inductively (and qualitatively).

Research methodologies

Action research



Sampling Techniques

Probability sampling-Simple random, Stratified random, area or cluster

Non probability sampling-purposive, convenience

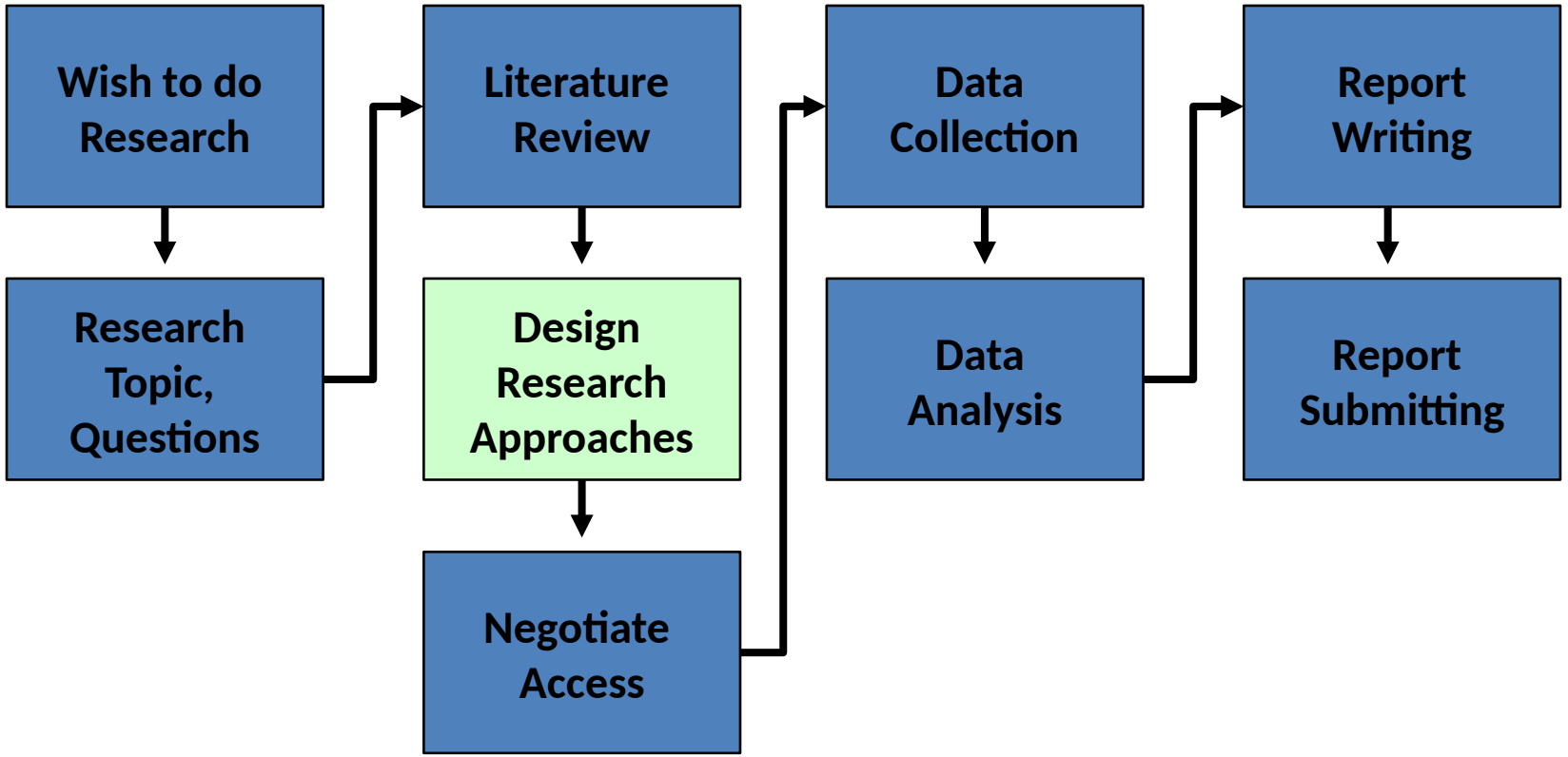
Tools of data collection

Observation
Questionnaire
Interview
Tests &Scales

Analysis of data

Quantitative data
Qualiatative data

Stages in a Research Project



Thank you