

Research Design and Methodology Part 1

Week 4 – 2012

Andre Samuel

Last Week

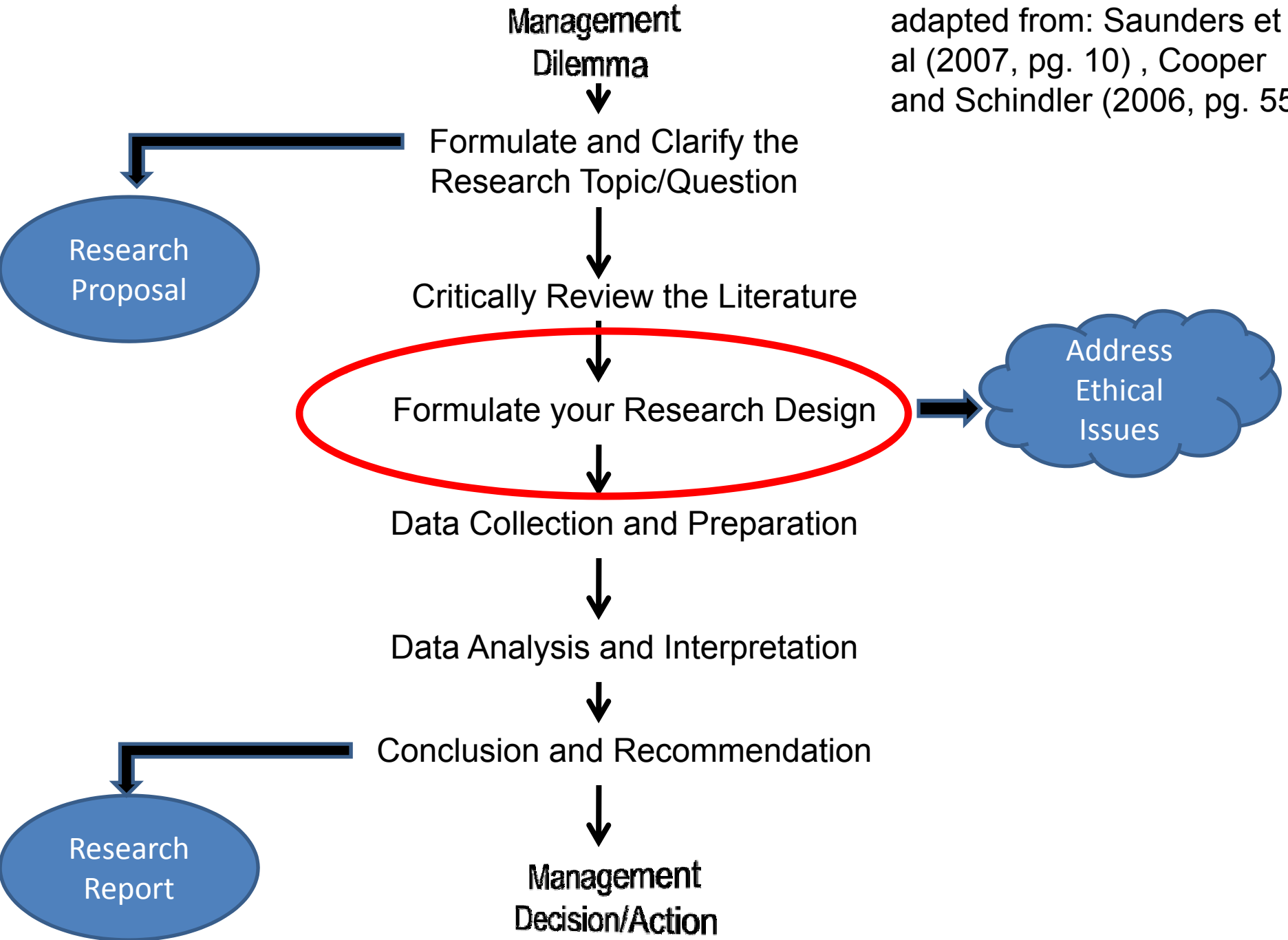
- Introduction-Basics of a Literature Review
- Purpose of Reviewing Literature
- What is a Conceptual Framework?
- Structuring your review
- Common Faults and Major Pitfall
- Steps in conducting a Literature Review
- Sources
- What is expected at this level?
- [Literature Review- Video-](http://www.youtube.com/watch?v=t2d7y_r65HU)
http://www.youtube.com/watch?v=t2d7y_r65HU

What have we done so far?

- What is Research?
- Clarifying your research
- Literature Review

**what's the next step
in the research process?**

The Research Process
adapted from: Saunders et al (2007, pg. 10) , Cooper and Schindler (2006, pg. 55)



This Week

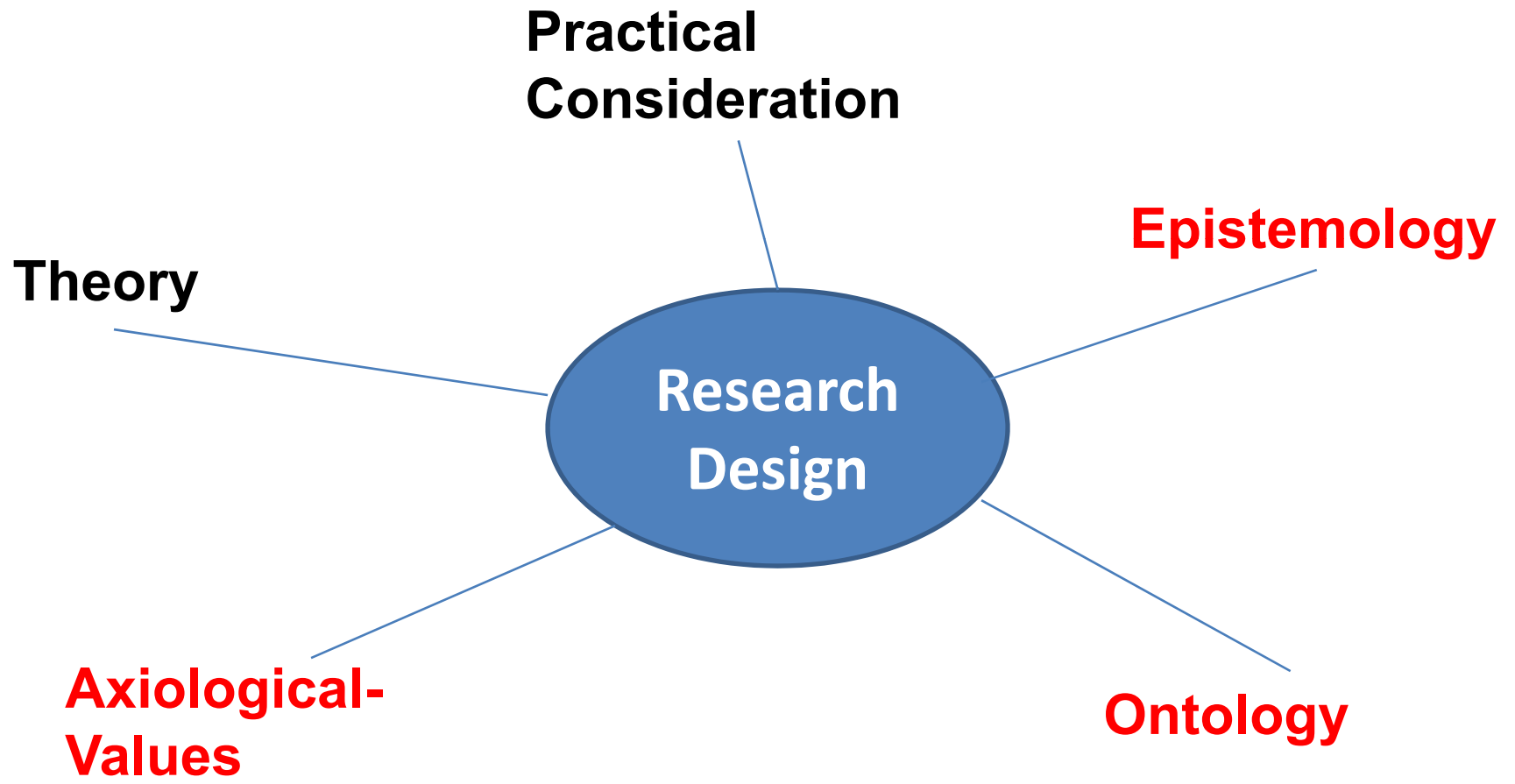
- What is meant by Research Design?
- Assumptions of Main Paradigms
 - Epistemology
 - Axiology
 - Ontological
- Research Paradigms or Philosophies
 - Positivism
 - Phenomenology
 - Pragmatism
- Types of Research Methodology/Strategy

What is Research Design?

- Research design is the **plan** and the **procedure** for research that span decisions from:
 - Broad assumptions
 - to detailed methods of data collection and analysis
- These decisions must be deliberated by the researcher and based on:
 - the nature of the research problem or issue and
 - The researchers' personal experiences

Influences on Research Design

Bryman (2008, p.24)



- **Essentially**, the research design answers three key questions:
 1. **What-** are the underlying assumptions,
 2. **How-** you are going to conduct the research, specifically the data collection and analysis and
 3. **Why-** this chosen plan would be best suited for the study. A justification of your choices.

Framework for Design adapted from Creswell

(2009)

Philosophical Worldviews

- Epistemology
- Ontology

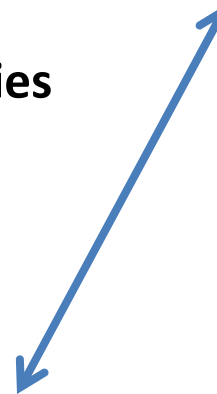
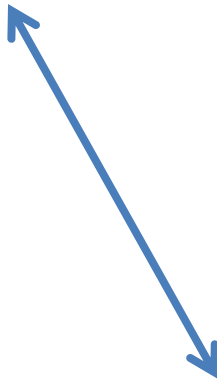
Selected Research Strategies

- Positivistic Strategies
- Phenomenological Strategies
- Mixed Methods



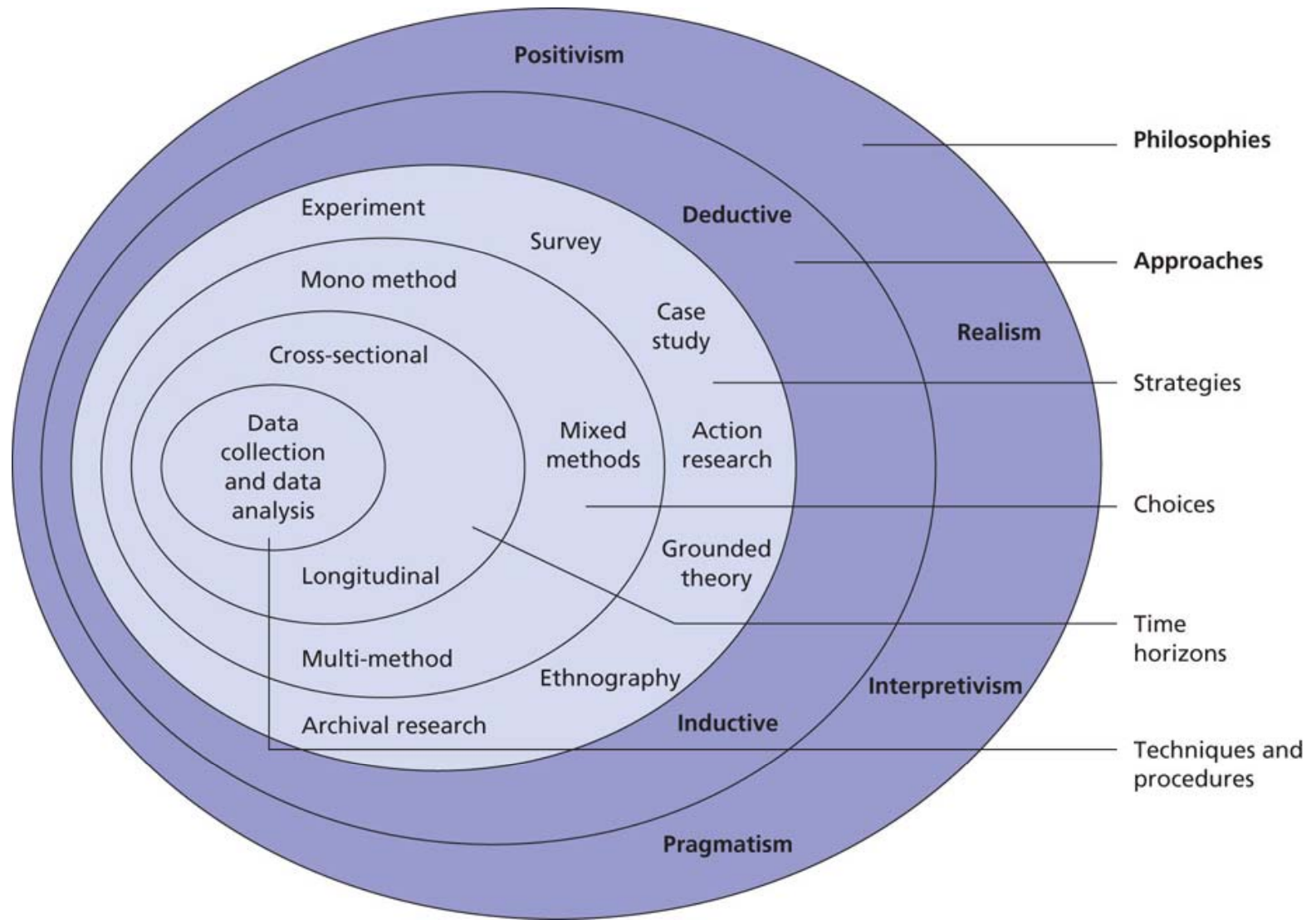
Research Paradigm/Philosophies

- Positivistic
- Phenomenological
- Mixed Methods



Research Techniques/Procedure

- Data Collection
- Data Analysis
- Interpretation



The Research 'Onion'

Saunders et al (2006)

Some clarifications on terms

- Some say Research **Paradigm** (Lincoln & Guba 2000) Philosophy (Saunders et al 2007) or even Worldview (Creswell 2009)
- Some use the term Research **Methodology** or Research Strategy
- Some say Research **Methods** or Technique or Procedure

Key terms-definition

- **Research Paradigm**-describes a cluster of beliefs and dictates what should be studied, how research should be done and how the results should be interpreted. Bryman (2008, p.696)
- **Research Methodology**- to emphasize an overall approach to the research process e.g. Survey or Action Research
- **Research Method**- used to outline a specific research technique or procedure for collecting and analyzing data e.g. Questionnaire or Focus Group

Worldviews or Assumptions

- These are general orientation about the world the researcher holds. Creswell (2009, pg.6)
- The types of beliefs held by researchers will often lead to embracing a particular *paradigm*.
- Paradigm are opposing worldviews either:
 - Scientific (objective) i.e. **Positivist** or
 - Constructivist (subjective) i.e. **Phenomenologist**
- There are many worldviews based on:
 - Epistemology
 - Ontology

Epistemology

- Research is about the **search for knowledge**, but the question is, what is knowledge and can that knowledge be in any sense **true or false?**
- It is a branch of philosophy that deals with knowledge and tries to answer the question as to whether a given body of knowledge is **adequate or inadequate**
- It is best understood as the science of obtaining knowledge and justification (evidence for the knowledge if you like)

Essentially..

- “Epistemology is concerned with the study of knowledge and what we accept as being valid knowledge “Collis and Hussey (2003, pg.48)
- “An Epistemological issue concerns the question of what is (or should be) regarded as acceptable knowledge in a discipline” Bryman (2008, pg. 13)

A Simple Example

- Suppose I ask the question: are your friends trustworthy?
- Most of us would answer Yes
- But how did we arrive at this knowledge, knowledge here being YES and
- What evidence do we have for it?
- Is it that the knowledge 'YES' is true or false, accepted or unaccepted, or even valid?

The Objectivism vs Subjectivism Epistemological Stance

Objectivism

- Positivist's believe that only phenomena which are observable and measurable can be regarded as valid knowledge
- They try to maintain an objective and independent stance
- **This leads a Positivism or Realism Paradigm**

Subjectivism

- Phenomenologist 's believes that knowledge is based on the perception of the individuals
- They attempt to minimize the distance between the researcher and that which is being researched
- **This leads to Phenomenological or Interpretivism Paradigm**

Axiological Assumption

- **Positivist's-** believe that science and the process is **value free** i.e. the **researcher is detached** from what they are researching and regard the phenomena as an object
- **Phenomenologist's-** considers that researchers **have values**. These values help to determine what are recognized as facts and the interpretation. The **researcher is involved** with that which is being researched

Ontology

- **What is the nature REALITY?**

- “ONTOLOGY is concerned with the nature of reality..... and assumptions researchers have about the way the world operates and the commitment held to a particular view”

Saunders et al (2009, pg. 110)

- ‘Reality can be thought of as Knowledge of a phenomena’

- In this context we are thinking of ‘knowledge’ or perhaps more correctly the particular body of knowledge that is embedded in your research project
- Such as Leadership Styles, imagine it, just the way you would look at a say **a car**, and try to get to its substance and essence
- **Ontology** is a description, like a **formal specification of REALITY**, the concepts and relationships that can exist
- **Is that description external to or within the mind of the individual?**

- What Do you think ?
 1. The body of knowledge on the phenomena(reality) is **external to social actors.**
Objectivism or
 2. whether the phenomena can and should be considered **social constructions built up from perceptions** and actions of social actors.
Constructivism

So what about the car?

- How would describe it?
 - **Objectively** i.e. as you see it for what it is, independent! E.g. red, small, sedan, slow engine, etc
 - **Constructively** i.e. built up from your perception! E.g. cheap, poor quality, prone to theft, owned by low income earners, driven by thieves, etc

Objectivism vs Constructivism

Bryman (2008, p.18)

Objectivism

- This is an ontological position that asserts that phenomena and their meanings have an existence that is **independent of social actors** i.e. beyond their influence.
- E.g. an organization has a reality that is external to the individuals who inhabit it. The organization exerts pressure on individuals to conform.

Constructivism

- This is an ontological position that asserts that phenomena and their meanings are continually **being accomplished by social actors**.
- Reality is produced through social interaction and in constant revision.
- E.g. the organization structure can be 'worked at'

Two Extremes or Aspects

- You must decide whether you consider that REALITY is **Objective** and external to you the researcher, independent of your view
 - i.e. researchers assume the social world is the same as the physical world. Can attempt to measure, analyse and test

OR

- Socially constructed and only understood by examining the perceptions of the human actors.
Subjective
 - i.e. researchers assume that there is no social world apart from that which is inside the individual's mind

Continuum of core ontological assumptions

POSITIVISM

PHENOMENOLOGY

Approach to Social Science



Reality as a concrete structure

Reality as a concrete process

Reality as a contextual field of information

Reality as a realm of symbolic discourse

Reality as a social construction

Reality as a projection of human imagination

OBJECTIVIST

**SUBJECTIVIST/
CONSTRUCTIVISM**

Source: Collis and Hussey (2003, pg.51)

Research Paradigms

- Positivism
- Phenomenology

Positivism

- This approach **seeks facts or causes** of social or business phenomena, with little regard to the subjective state of the individual
- Logical reasoning is applied so that precision, **objectivity and rigour replace hunches**, experience and intuition as the means of investigation
- It is based on the assumption that **reality is independent of the researcher** and exists regardless of whether we are aware of it

- Laws or theory provide the basis of explanation, permit the anticipation of a phenomena or predict their occurrence
- Thus, the social or business worlds and the natural or physical world are both regarded as being bounded by certain fixed laws or theories

- For this type of research you are likely to use an existing theory to **develop a hypotheses**
- These **hypotheses will be tested** and confirmed or refuted, leading to further development of theory or Reality
- You are likely to use a highly structured research design

Phenomenology

- Many have argued against Positivism
- Pointing out that the social science **deals with action and behaviour** which are generated from within the human mind
- “The phenomenologist views human behaviour as a product of how people interpret the world. In order to grasp the meanings of a person’s behaviour, the *phenomenologist attempts to things from that person’s point of view*” Bogdan and Taylor (1975)

- They argued that the interrelationship of **researcher and object or reality was impossible to separate** and
- What existed in the social and human world was what we as researchers thought existed
- Therefore, the Phenomenological paradigm is concerned with **understanding human behaviour from the participant's own frame of reference**

- It is assumed that **Reality is within us**
- Therefore, the act of investigating Reality has an effect on that Reality
- Considerable regard is given to the **subjective** state of the individual
- Because it **focuses on meaning** rather than measurement

- Phenomenologist's believes that social Reality is dependent on the mind
- There is no reality independent of the mind
- Therefore what is researched cannot be unaffected by the process of the research

Features of the two main Paradigms

Source: Collis and Hussey (2003, pg 55)

Positivistic

- Tends to produce quantitative data
- Uses large samples
- Concerned with hypothesis testing
- Data is highly specific and precise
- The location is artificial
- Reliability is high
- Validity is low
- Generalizes from sample population

Phenomenological

- Tends to be qualitative data
- Uses small samples
- Concerned with generating theories
- Data is rich and subjective
- The location is natural
- Reliability is low
- Validity is high
- Generalizes from one setting to another

Another Perspective by Creswell (2009)

- Quantitative Research
- Qualitative Research

Quantitative Research

- Is a means for **testing objective theories** by examining relationship among variables
- These variables can be measured, so that numbered data can be analyzed using statistical procedures
- Those who engage in this form of research have assumptions about testing theories **deductively**
- Researchers build in protections against bias

Qualitative Research

- Is a means for exploring and understanding the meaning individual assign to a social problem
- It involves emerging questions and procedures
- Data typically collected in the participant's setting
- Data analysis **inductively** builds from particulars to general themes, where the researcher interprets the meaning of the data

Quantitative

- Useful when looking for facts or causes
- Controlled measurements
- Objective (predictive)
- Outside perspective
- Deductive and verification oriented
- Outcome oriented – does your variable really control something
- Particular and closed
- Assume a stable reality otherwise results are worthless

Qualitative

- Useful when trying to understand behaviours
- Uncontrolled observation – that is just observation without you controlling
- Subjective
- Insider perspective on the data
- Discovery-orientated, explanatory and descriptive
- Process orientated – that is you drive the research
- Holistic and open
- Assume a very dynamic reality

Fundamental difference

	Quantitative	Qualitative
Principal Orientation to the role of theory to the research	Deductive-testing of theory	Inductive-generation of theory
Epistemological Orientation	Natural Science, Positivism	Interpretivism, Phenomenological
Ontological Orientation	Objectivism	Constructivism

For simplicity: the bottom Line

- Positivism = Deductive = Quantitative
- Phenomenology= Inductive = Qualitative
- *Be careful this not a strict rule*
- *Only meant to help you understand!!!*

Key Questions?

- Is it possible to hold a objectivist epistemology view and at the same time assume that reality is constructed?
- Or vice versa?
- **Further, Would it be accepted to use both a Qualitative and Quantitative approaches for your research?**

The Pragmatic Worldview

- **Pragmatism** arises out of actions, situations and consequences rather than classical considerations.
- Pragmatist focus on the research problem and use all available approaches to understand the problem
- Pragmatism is therefore not committed to one philosophy and reality

- Individual researchers have a freedom of choice
- Pragmatist believe in an external world independent of the mind as well as that lodged in the mind
- Hence the birth of **Mixed Methods Approach**

Mixed Methods

- Is an approach to research that combines or associates both quantitative and qualitative forms
- It involve philosophical assumptions and mixing of both approaches in a study
- Thus, it is more simply collecting and analyzing both kinds of data
- It also involves the use of both approaches in tandem
- This should increase overall strength of a study, so that it is greater than either quantitative or qualitative research

Remember

- The research philosophy you adopt contains important assumptions about the way in which you view the world
- These assumptions will underpin your research paradigm, methodology and methods that you choose to conduct your research

Research Methodology

- The Epistemological and Ontological view that research hold determine the Research Paradigm chosen
- Should it also determine the Research Strategy or Methodology?

Types of Research Methodology/Strategy

POSITIVISTIC

PHENOMENOLOGICAL

Approach to Social Science



- CROSS SECTIONAL STUDIES
- EXPERIMENTAL STUDIES
- LONGITUDINAL STUDIES
- SURVEYS

- ACTION RESEARCH
- CASE STUDIES
- ETHNOGRAPHY
- GROUNDED THEORY
- HERMENEUTICS
- PARTICIPATIVE ENQUIRY

Source: Collis and Hussey (2003, pg.60)

Bibliography

- Collis. J., Hussey R (2003) Business Research 2nd edition, Palgarve Macmillan
- Saunders, M., Lewis, P., Thornhill, A. (2009) Research Methods for Business Students, 5th edition, Prentice Hall
- Creswell. J.W., (2009) Research Design, Qualitative, Quantitative and Mixed Method Approaches, 3rd Edition, Sage Publications Inc.
- Salkind, N. (2003) Exploring Research, 5th Edition, Prentice Hall
- Cooper, D.R., Schindler, P.S. (2006) Business Research Methods, McGraw-Hill