

Research Proposal and Ethics Workshop

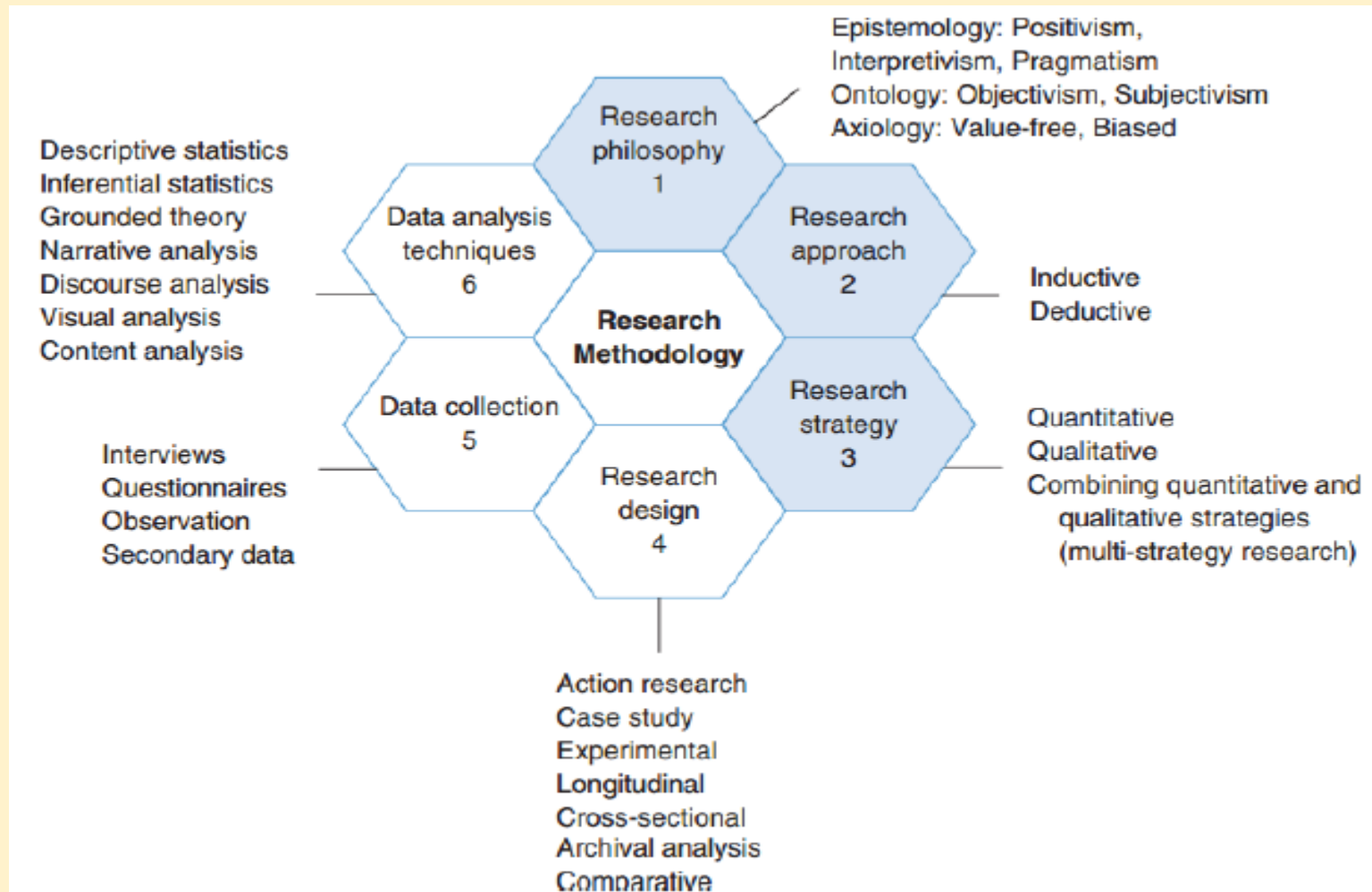
Lecture 8 Research Design

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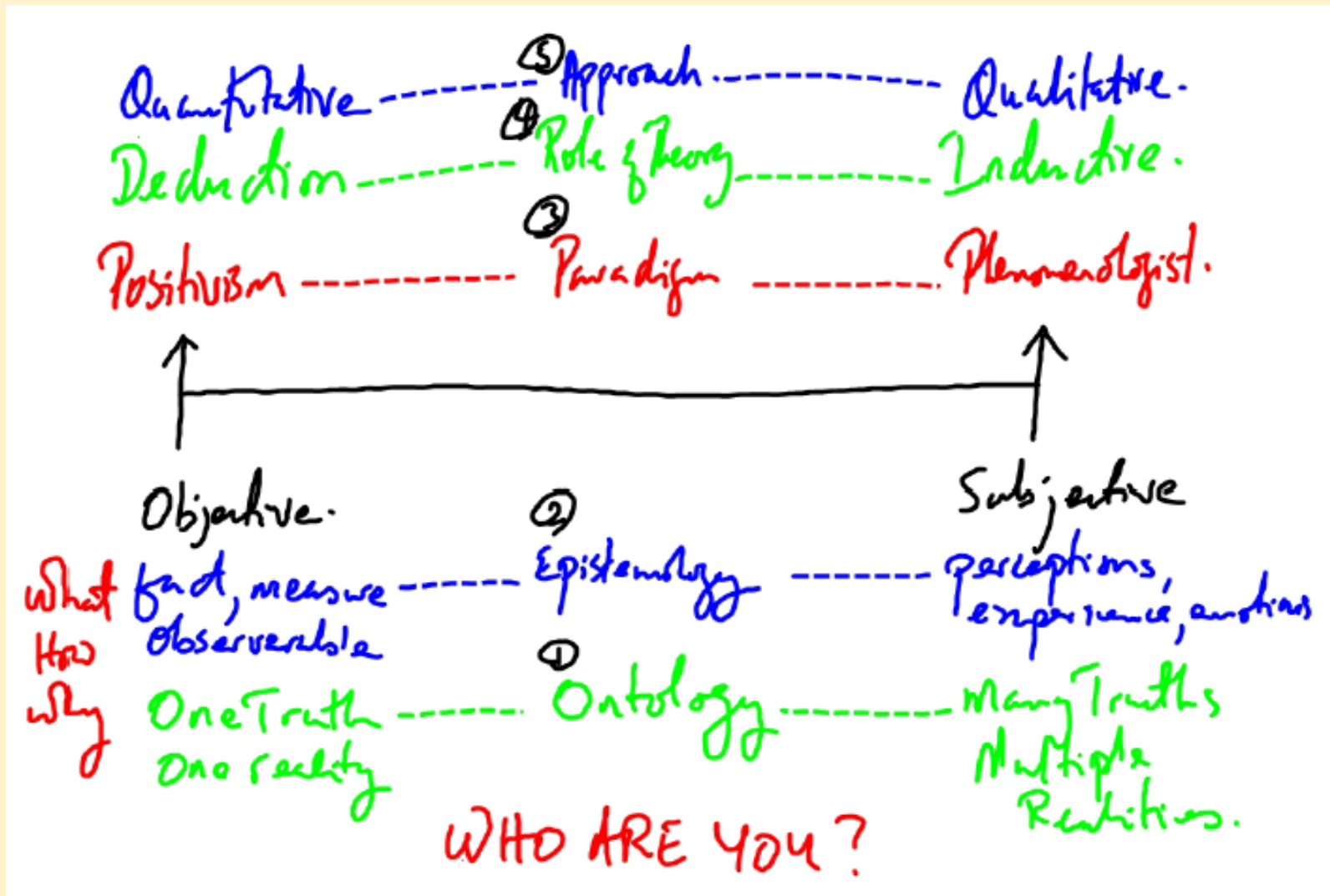
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The Honeycomb Model- Wilson (2013)



Research Philosophy



Positivism

Paradigm

**Interpretivism/
Phenomenology**



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

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

Types of Research Designs

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

Research Design- Options

- Types of Research Study:
 - Exploratory, Descriptive, Causal
- Types of Research Design:
 - Case Study
 - Action Research
 - Survey
 - Grounded Theory
- Time Horizon:
 - Cross-sectional vs Longitudinal

Purpose of Research Methodology

- This is where you outline the **primary data** and **secondary data** needed for your research
- It is the **core research element** of your project not the literature review
- That is, how you get your data and process it to answer your research question
- This means specifying :
 - what data you need,
 - where or who you will get the data from (your sample frame and sample)

PRIMARY DATA

DATA PROCESSING
TRANSFORMATION

Interpretation

- Practical details on **HOW** you will collect the data, deciding what statistical or other processes you can use on the data
- Deciding how to present the raw and processed data and
- Finally checking that the collected data makes sense with what you intend to do
- In summary think of your research design as a kind of function or transformation that takes your primary data and turns it into your desired project outcome , i.e. the answer to your RQ and objectives

What does it mean?

- So your Research Methodology will specify the **strategy** that you will apply:
 - in collecting the primary data
 - Transforming that data i.e. processing
 - Presenting and interpreting the results
- The Research Methodology you specify will have a tremendous effect on your research outcome
- One can understand why, if you collect the wrong data, using the wrong method then you will get the wrong result.
- Thus you will not be able to provide any relevant or workable answer for your Research Question
- You must also remember that the Research Paradigm you select underpins the Methodology chosen

Formulating a Scheme for Answering your Research Question

- The scheme must arise out of the base problem and its cause
- This scheme will provide an **Idea for action**
- Try to think through whether your basic idea for action is about trying to:
 - explore and evaluate,
 - describe and evaluate,
 - understand and evaluate

Simple Example

Scenario:

- Suppose that we were trying to evaluate the effectiveness of recent implementation of Training
- So the basic problem is that it is not known if the training programme was effective
- Clearly a lot of money is spent on training so it might be really useful to know if it was effective
- What is needed is an idea of HOW to look for the results of the training
- So the first step is to get an idea for action

Example Cont'd

Idea settled on:

- So we can look :
 - For **changes in working practices**
 - We can look at **productivity levels**
 - Check for **error rates**,
- It might be worthwhile to have a control group, i.e. one that did not undergo the training
- This is the basic idea
- In practice you might try several ideas before you are happy with one
- If you accept the idea you can NOW ask what data is needed
- Without the idea for action it would be just guessing what the data might be required

Surveys Methodology

- Typically indicated when the research question starts with 'who', 'what', 'where', 'how' many' and 'how much
- It is therefore used for exploratory and descriptive research
- This strategy provides a **quantitative** or numeric description of trends, attitudes or opinions
- This leads to general inferences about a population from a **sample** of the population

- The results will be very dependant on having a big enough and unbiased representative sample
- You will have to use statistical techniques to demonstrate the likelihood that the sample would be characteristic of the population
- You will have to specify the characteristics of the population and the sampling procedure and calculate the sample size
- This is important because you would be making a set of generalized statements from your findings

- You will have to name the survey instruments used to collect data
- Critical to this strategy is the use of statistical processes to analyze the data collected
- Usually you can make use of readily available software tools such as SPSS or even MS Excel
- Indicative of a survey, is that the data you collect and analyze will be independent i.e. you have done it, not others

- Surveys can be done using Cross Sectional or Longitudinal studies
 - i.e. data collected at one point or
 - Data collected over time
- Data collection protocol or techniques can be wide ranging
 - Questionnaires
 - Interviews
 - Observations
 - Structured Record Reviews

Action Research

- Typically indicated as useful when the research question starts with 'how'
- It is an approach which assumes the social world is constantly changing and the researcher and the research itself are part of this change
- It is usual to conduct action research within a single organization

- The research is concerned about the resolution of a business issue
- There is a desire by the researcher to explain something and use that explanation to improve practice
- That is, bringing about change in a partly controlled environment (your organization or workplace)
- This requires the researcher to partner, collaborate and get involved with the client organization or practitioners

- Therefore, the researcher is part of the organization where the research and change process is taking place
- **Be careful some action research may not be very far from a consultancy project or journalism**
- We do not want journalism at this level!
- Stay away from political issues, social issues that you can just write 2000 words on, to solve a trivial problem

- It is critical that the results of action research have implications beyond the direct subject i.e. your organization
- In other words, the outcome of your research must be capable of being applied to other organizations or perhaps the industry as a whole or even other industries

Case Studies

- Typically useful when research question starts with 'Why', 'What' and 'How'
- Case studies are commonly used to illustrate or understand a problem or indicate good practice
- Therefore, Case Studies are often used in Explanatory and Exploratory research
- It is an extensive examination of a single instance of a phenomenon of interest

- It focuses on understanding the dynamics present within a single setting, i.e. the context
- Case study research must be constructed to the context in which management behaviour takes place
- For most case studies there is usually be a longitudinal element
 - that is the cases will run over a fixed time period
 - and you will periodically visit each case to collect the data
- Case Study research can produce both quantitative and qualitative data

Organizing your Case

- **How many cases** – be practical because there are time limits
- **Case Criteria** - add as many criteria as you think necessary to pin down what will constitute a valid context but don't have so many that you will never find a case that fits
- **Data collection Protocol** – combination of observation, interview, document analysis. You will have to have a protocol to say when a valid sample size is attained

How many Cases or Types?

- **Single Case-** in this approach the researcher explores a single unit of analysis, i.e.
 - A company
 - A group of workers
 - An event
 - A process
- Single Case can be:
 - **Unique:** implying that the setting and context are extremely rare and there may no be another chance to study this problem area again
 - **Critical:** implies an important theory that you want to test or a problem you want to solve and a particular case fits that profile

- **Multiple Cases-**

- it means exploring more than one unit of analysis
- these may be desired over single case, in particular when you want to postulate a *theoretical generalization* between different units of analysis

Main Stages of Case Study Research

- 1. Selecting your Case-** a representative case or a set of cases
- 2. Preliminary Investigations-** the process of becoming familiar with the context, however keep your mind free of any bias
- 3. The Data Stage-** determine how, where and when to collect data. Best to combine methods, known as Triangulation

4. The Analysis Stage-

- the analysis can be **Holistic** i.e. the entire case or **Embedded** i.e. a specific aspect of the case
- Through data collection a detailed description of the case emerges
- The researcher might focus on a few key issues i.e. **analysis of themes**

For Multiple Cases:

- Within-case analysis : here you would be building up descriptions whether quantitative or qualitative of one or each case, so that you can identify trends, patterns with the hope of pinning down a theory or phenomena
- Cross-case analysis : here you may wish to identify:
 - **similarities**, which would help to show whether your theory can be generalized or
 - **differences**, which would help to extend or modify any theory.
 - Essentially, both will help you identify some common patterns

Grounded Theory

- The intent of Grounded Theory is to move beyond description of a phenomenon
- Essentially, **to generate or discover a theory**
- The development of the theory **might help explain practice**
- The theory-development **does not come “off the shelf”** but is generated or ‘grounded’ in the **data** from participants who have experienced the process or phenomenon

- “Grounded Theory is a research strategy in which the researcher generates a general explanation (a theory) of a process shaped by the views of a large number of participants”
Creswell (2007, pg.63)

Types of Grounded Theory

- **Systematic Procedures of Strauss and Corbin (1990, 1998)**
 - The researcher seeks to systematically develop a theory that explains a process or phenomenon
 - The researcher typically conducts 20 to 30 interviews based on several visits to the organization or field
 - It utilize **Analytical Induction**, where data is collected until saturation occurs i.e. continue to add explanations until no more can be found or no more inconsistencies or variants

- While the data is being collected, analysis is done simultaneously
- Data collection is a 'zigzag' process: out to the field to collect data, into the office to analyze, back to the field to collect more and so forth
- Thus, Grounded theory utilize **Constant Comparative method of data analysis** to develop Categories- Core, Casual Conditions, Strategies, Intervening Conditions and Consequences
- From these categories the researcher can develop a theory- Substantive Level

- **Constructivist Approach of Charmaz (2005, 2006)**

- Charmaz advocates for a social constructivist perspective, emphasizing diverse and multiple realities
- Constructivists grounded theory depends on the researcher's view, learning about experiences within embedded, hidden networks, situations and relationships
- It places more emphasis on views, values, beliefs feelings, assumptions and ideologies of individuals rather than the methods of research
- It is flexible in structure: relexivity

Time Horizon for your Research

- Saunders et al (2009) articulates that time taken to research the phenomena is independent of which research methodology you have chosen or choice of research technique/method
- There are two possible options:
 - Cross Sectional Studies
 - Longitudinal Studies

Cross Sectional Studies

- These are designed to obtain information on variables in different context, but at the same time
- Normally, different organizations or groups of people are selected and a study conducted to ascertain how factors differ
- So it means, collecting data on more than one case at a single point of time. Bryman (2007, p.44)
- For example, if you are investigating labour turnover
- You will need to select a sample of work groups where you know that labour turnover is different
- You can then conduct statistical test to find out whether there is any correlation between variables

- Cross sectional studies are conducted when there are constraints of time or resources
- The data is collected once, over a short period of time before it is analyzed and interpreted
- Thus cross sectional studies take a **snapshot** of an on going situation

Longitudinal Studies

- It is a study over time, of a variable or group of subjects
- The aim is to research the dynamics of the problem
- This is done by investigating the same situation or people several time or continuously, over the period in which the problem runs its course
- Repeated observations are taken with the view to revealing the relative stability of the phenomena

- This will allow the researcher to examine change processes
- Therefore, it would be likely to suggest probable explanations from an examination of the process of change and pattern which emerge

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