Mixed Methods

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Outline of presentation

• Overview of Research Designs

• ‘Define’ mixed methods

• Paradigms and advantages

• Approaches of mixed methods
Research approaches / theory building approaches

Quantitative
Qualitative
Mixed
Quantitative research approach: Deductive

• Proposition of hypothesis or theory first

• Data collection and analysis

• Prove or disprove the hypothesis

• Very structured research process

• Big size of sample critical
Qualitative Research Approach: Inductive

• Data collection first

• Data analysis

• New theory or hypothesis proposed

• Not very structured

• Sample size can be relatively small
Mixed Methods Research Approach: Abductive

• Combines deductive and inductive approaches

• Parallel

• Sequential

• Nested

• Multi-level/Integrated
Research approaches/Theory building processes

1. Deduction: start with a theory and test it

2. Induction: start with observations and build theory from the findings

3. Abduction: start with either theory or observations or both

- Analyse and interpret data iteratively between induction and deduction.

- The data inform the development of theories, which can be tested / shaped / expanded in the next round of analysis
Some possible reasons for using mixed methods research design

- Triangulate - converge
- Enrich - diverge
- Complement
- Clarify
- Theorise
- Expand/Explore
- Enhance Interpretation
- Enhance Validity
- Interrogate / Explain
Mixed Methods Research Designs

Parallel/Concurrent
Sequential exploratory
Sequential explanatory
Nested Strategy Mixed Methods
Parallel/Concurrent Mixed Methods Design

• Data collection separate but concurrent

• Mixing occurs during interpretation / discussion
  
  ➢ Convergence / confirmation (validation)
  ➢ Divergent - enrichment

• Explain / theorise
Sequential Exploratory Mixed Methods Design

• Qualitative component first

• Quantitative phase is informed by the Qualitative findings

• If the Qualitative study is flawed, the entire research will be flawed / based on faulty premises

• Quantitative results: numerical meaning (external validity)
Sequential Explanatory Mixed Methods Design

• Quantitative component first
• Qualitative phase second

➢ To explain the Quantitative findings and/or

➢ To contextualise the Quantitative findings
Nested Strategy Mixed Methods Design

• A sub-sample of the main sample is selected for deeper investigation

  ➢ E.g., in a quant study, a group of respondents may be selected for qualitative research

  ➢ E.g. In a qual study, some of the emergent themes can be quantitatively examined
Reliability and Validity
What is external validity?

Whole study
Types of Validity

Quantitative Instruments
Types of Reliability: Quantitative

- **Test-retest reliability**: self-reported measures

- **Internal consistency reliability**: ‘inter-relatedness’ of items in a tool (e.g. comprehension of x)

- **Intra-rater reliability**: rater consistency

- **Inter-rater reliability**: 2 or more raters
Reliability and Validity: Quantitative

- Reliability is a necessary but not sufficient pre-condition for validity

- But validity is not a necessary pre-condition for reliability

- You need reliable instruments in order to have high validity of outcome measures
Qualitative

• Transferability: context /settings description

• Credibility: Triangulation; details

• Dependability: Nature of questions in tools; way of collecting data

• Confirmability: records (audio, video, written,)
Reliability and Validity: Mixed Methods

• Each component has to be dealt with separately

• For quantitative component, reliability and validity can be expressed as figures

• For qualitative component, different terminology and expression are used
Thank you