



## History of Mixed Methods

- The late 1980s – several publications began to appear across disciplines to describe and define mixed methods research
- The complexity of some research problems calls for answers beyond simple numbers or words
- A combination of both sets of data- complete analysis
- Researchers situate numbers in the context of what people might say, and they frame the words of participants with numbers trends and statistical results (Creswell & Plano Clark, 2011)

Example presentation title Page 2

## Should we mix our methods?

- Attempts to combine positivist and naturalist paradigms have been discouraged by some researchers from both traditions
- These researchers emphasize the differences between the two approaches and point to the difficulty of combining their very different understandings of how knowledge is generated and the paradigms that have developed out of these fundamental differences

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## Research approaches-epistemology

### Positivist

- Theory generates hypotheses which are tested through observation/collection of data
- Knowledge is arrived at through the gathering of facts
- Research must be objective

### Interpretivist

- Observation/collection of data generates theory
- Knowledge derived from the interpretation of human action
- Research interpretive or constructionist rather than objective

## Mixed Methods Studies

- There is growing support in the literature for mixed methods approaches
- When examples of social research are examined there are often theory-testing questions in qualitative research. Research at any point in time moves from inductive to deductive logic
- Argument that we should be open to consider how to best match research questions to a range of data collection methods
- Whilst qualitative methods provide for richly textured data, quantitative data may assist in providing the big picture

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## Paradigms- Pragmatism

- Pragmatism is a set ideas valuing both objective and subjective knowledge
- The research should be of primary importance- more important than either the method or the philosophical worldview
- The forced choice between post-positivism and constructivism should be abandoned
- A practical and applied research philosophy should guide methodological choices

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## The Transformative Paradigm

The transformative paradigm recognizes that 'voices of those who are disenfranchised on the basis of gender, race/ethnicity, disability or other characteristic' (Mertens 2007, p.214) can be excluded in research. Within this paradigm mixed methods are preferred, to highlight issues of need, (quantitative data) and to give voice to these issues (qualitative data). The transformative paradigm with its ontological, epistemological and methodological assumptions can provide a framework for different types of feminist research.

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## Examples of Mixed Methods Research

- A researcher collects data via a survey (quant) and uses focus groups (qual) to see if the groups of data show similar results
- A researcher collects data using a quant survey instrument and follows up with individuals who participated in the survey to get more detail on responses
- A researcher explores how individuals describe a topic (e.g. workplace bullying) to develop a survey instrument that is administered later to a sample from a population

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## Some reasons for using mixed methods

- Triangulation: the researcher collects both quantitative and qualitative data simultaneously, compares and contrasts the findings and merges them
- Complimentarity: the researcher is seeking elaboration, enhancement, illustration and clarification from the results of one method with those of another

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## Some reasons for using mixed methods (cont.)

- Development: the researcher uses the results of the first method to develop or inform research using the other method
- Initiation: the researcher is looking for paradox and contradiction in order to recast questions or results with questions or results obtained using the other method

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## Some reasons for using mixed methods (cont.)

- Expansion: the researcher seeks to extend the breadth and range of a study by using the different methods for different components of the study
- Greene et al., 1989

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## Exercise

*Individually, consider whether a mixed methods approach is feasible for your study  
What would be the key purpose?  
(e.g. Triangulation, complimentarity, development, initiation, expansion)  
As a group choose one study to discuss and report back on, identifying the key purpose for mixing methods in this study*

## The four Major types of designs

- The convergent parallel design
- Explanatory sequential design
- Exploratory sequential design
- Embedded design

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## Mixed Methods: The Convergent parallel design



Merge the data

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## Convergent Parallel

- To obtain different but complementary data on the same topic
- Bring the strengths of each together
- Quant- large sample size, trends, generalizability
- Qual- small N, details, in depth
- Data collected simultaneously
- Interpretation

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## Examples of a Convergent Parallel Design

- Corryong Health needs study
  - Focus Groups
  - In-depth Interviews
  - Survey data
- (Department of Social Work, La Trobe Rural Health School)

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## Explanatory Sequential design

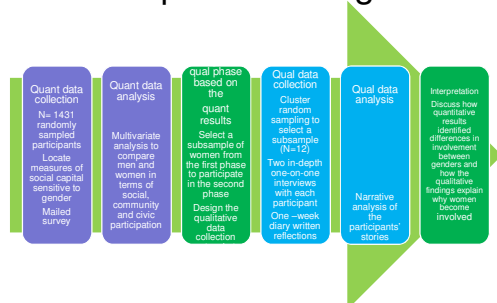
- Two phased
- The design starts with collection and analysis of quantitative data which has the priority for addressing the study's questions
- Qualitative data helps explain or build on initial quantitative results
- Qual data might explain significant (or non-significant) results or unexpected results

## The Study- Research Questions

- ***Do men and women have different social capital profiles?***
- ***Why do women participate more in social and community activities than in civic activities?***
- ***(Hodgkin 2008)***

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## Diagram for Explanatory Sequential Design



## Retention of Older Healthcare Workers

- Research Question
  - *What organisational and social factors impact on the retention of rural healthcare workers in the north Victorian public sector who are aged 55 years and over?*
- Explanatory Sequential Mixed Methods Design



## Phase 1 – Quant Data Phase 2 – Qual Data

- 17 Victorian Public Healthcare Institutions (n=300)
- Participant completion of a 4 page survey
  - Items Included
    - Demographic Variables
    - Retirement Intentions
    - Effort-Reward Imbalance Questionnaire
    - General Health Questionnaire
- Phase 2- In depth interviews (n=24)

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## Exploratory Sequential Design

- In contrast the exploratory design begins with and prioritises qualitative data
  - The results of the first method (qualitative) can help develop or inform the second method (quantitative)
- Design is based on the premise that an exploration is needed e.g. measures or instruments are not available, variables are unknown, no guiding framework or theory
- Good to develop and test an instrument

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## Exploratory Designs



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## Examples of Exploratory Sequential Design (Myers & Oetzel, 2003)

- Study- the assimilation of new employees within organisational settings
- Approach- stage 1- qualitative exploration of the dimensions of organisational assimilation. This involved interviews with 13 participants
- Authors then developed an organisational assimilation measurement tool and was administered to 342 employees

## Embedded Design

- One data set provides a supportive secondary role in a study based primarily on the other type
- A single data set is not sufficient, different questions need to be answered
- Collect data at the same time however one data set provides a supplemental role

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### Using mixed methods to develop a work sampling tool (Hodgkin et al)

- In the design of our research, the quantitative data, collected via the VSM observational tool provided the predominant data. Our central task was to use the value stream mapping tool to chart the activities of caregiving staff across aged care facilities located across rural Australia. However, qualitative data was collected prior to the VSM data collection to inform the measurement tool, and during the project to help contextualise the findings.

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### Example of an embedded design (Hodgkin et al, 2012)

Quantitative data collected via  
structured observation using the  
VSM tool

Qualitative data collected via  
structured interviews with NUMS

## The VSM tool

Figure 1. The Value Stream Mapping Tool

Mapping by: \_\_\_\_\_ Date: \_\_\_\_\_ Time commenced: \_\_\_\_\_ ended: \_\_\_\_\_  
Number: \_\_\_\_\_ Role: \_\_NUM DIVISION 1 DIV2END DIVISION 2 OTHER ( ) Page \_\_\_\_of \_\_\_\_\_

- Time Commenced
- PRIMARY TASK
- ASSOCIATED TASKS

•(Time completed)

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*Think about it.*

*As a group,  
using your  
current  
research or a  
substantive  
topic of  
interest*

How might  
you apply one  
of the mixed  
methods  
designs  
presented to  
it.....? Write a  
one paragraph  
overview

## Challenges conducting mixed method studies

- Time-data collection and analysis
- Expertise- data collection and analysis
- Cost- data collection and analysis
- Worth the effort; new skills, data files

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Thank You