ADVANCES IN MIXED METHODS DESIGN

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Webinar Mixed Methods International Research Association
February 2017
METHODS AND DESIGN OPTIONS

- Quantitative approaches such as experimental, quasi-experimental, causal-comparative, correlational, survey, and single-case designs

- Qualitative approaches such as group processes (e.g., focus groups or some indigenous methods), case studies, ethnographic research, phenomenological research, and PAR

- Mixed methods includes collection and analysis of both quantitative and qualitative data with integration of the processes and data at various levels and stages in a study or a sequence of studies (Mertens, 2009, TRE, p. 165).
MM Design Options in the Early Years of MM Development

Concurrent Design
Quantitative and Qualitative occur more or less simultaneously

Sequential Design: Quantitative Followed by Qualitative

OR

Sequential Design: Qualitative Followed by Quantitative

Mertens, 2009, TRE, p. 167
Anti-paradigm war

- Pragmatic
- Post-positivism
- Constructivist
- Transformative

Dialectical Pluralism

**MM PARADIGMATIC POSITIONS**
# PRAGMATIC PARADIGM

<table>
<thead>
<tr>
<th>Assumptions</th>
<th>Beliefs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axiology</td>
<td>Gain knowledge in pursuit of desired ends as influenced by the researcher’s values and politics</td>
</tr>
<tr>
<td>Ontology</td>
<td>Single reality but individually experienced</td>
</tr>
<tr>
<td>Epistemology</td>
<td>Appropriate to the study</td>
</tr>
<tr>
<td>Methodology</td>
<td>Match methods to questions; mixed methods</td>
</tr>
</tbody>
</table>

Mertens MM Design MMIRA webinar
Sequential data collection

Procedures
- Qualitative phone interviews with 18 Japanese women who had advance consent procedure

Products
- Experiences with advance consent process

QUALITATIVE

Concurrent data collection

quantitative and qualitative

Procedures
- Survey of 82 Japanese women who had advance consent for epidural

Products
- Attitudes about advance consent procedure

Procedures
- Email survey of 78 health professionals

Products
- Quantitative data on attitudes
- Qualitative data on experiences

Overall results and interpretation

Fetters, Yoshioka, Greenberg, Gorenflo, & Yeo, 2007
**POSTPOSITIVIST PARADIGM**

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Beliefs</th>
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</thead>
<tbody>
<tr>
<td>Axiology</td>
<td>Respect/privacy Beneficence/min harm; Justice</td>
</tr>
<tr>
<td>Ontology</td>
<td>One reality</td>
</tr>
<tr>
<td>Epistemology</td>
<td>Objective</td>
</tr>
<tr>
<td>Methodology</td>
<td>Quantitative; Randomized controlled trials (RCTs); Black box MM</td>
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</table>
Phase 1 Qualitative
Recruit participants; collect demographic data
Conduct qualitative interviews

Phase 2. Concurrent Mixed Methods
Pilot test using control and experimental conditions
Administer baseline questionnaires
Conduct follow-up interviews with pilot participants (quant and qual)
Weekly team meetings to review participant and interviewer feedback
Developed study protocols

Phase 3. RCT
Assign participants to experimental and control groups
Collect baseline data (e.g., stress scale, depression scale, exercise scale)
Bimonthly follow-up phone calls to assess interval events and health behavior
Participants in the hypertension group use electronic pill monitors
Asthma and cardiac groups use the kilocalorie/week index
Baseline measures repeat after the intervention

Peterson et al., 2013
## CONSTRUCTIVIST PARADIGM

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Beliefs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axiology</td>
<td>Balanced Representation; rapport</td>
</tr>
<tr>
<td>Ontology</td>
<td>Multiple socially constructed realities</td>
</tr>
<tr>
<td>Epistemology</td>
<td>Interactive</td>
</tr>
<tr>
<td>Methodology</td>
<td>Qualitative approaches</td>
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</tbody>
</table>
SAMPLE CONSTRUCTIVIST QUESTIONS

- How well do recruitment procedures work?
- How well does the intervention respond to the culture and context of the target population?
- To what extent does the target population reflect the range of diversity with regard to the overall goals of the project? Who is left out? Why?
- To what extent is ethics praxis built into the recruitment and evaluation process?
- How well does the target population understand what they are consenting to?
- To what extent do participants accept the outcome/s of randomization? Are participants willing to be randomized?

Hesse Biber (2013)
**Stage 1**
Sequential

3-year lack of uptake of services
Grounded theory study of women’s experiences and barriers (focus groups; observations; field notes)

**Stage 2**
Qualitative

Design RCT
Construct modified intervention;

**Stage 3**
Sequential

Process eval
intervention: Observations, Interviews, Surveys

**Stage 4**
Concurrent

Number of Mammograms;

Post tests: Quant Qual; Behavior Change

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**CONSTRUCTIVIST VALUES DRIVEN MIXED METHODS (PUSCHEL & THOMPSON, 2011 CITED IN HESSE BIBER, 2013)**

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# TRANSFORMATIVE PARADIGM

<table>
<thead>
<tr>
<th>Assumptions</th>
<th>Beliefs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axiology</td>
<td>Cultural respect; promote social justice &amp; human rights; address inequities; reciprocity</td>
</tr>
<tr>
<td>Ontology</td>
<td>Multi-faceted; consequences of privilege</td>
</tr>
<tr>
<td>Epistemology</td>
<td>Interactive; trust</td>
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<tr>
<td>Methodology</td>
<td>Transformative, dialogic, mixed methods</td>
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TRANSFORMATIVE ETHICS: METHODOLOGICAL IMPLICATIONS

- Who are the major stakeholders and what do you think you know about the cultural norms and beliefs of these groups?

How could you use mixed methods to:

- identify the cultural norms and beliefs that might be operating in the community?
- appropriately engage members of the community?
- How would you take into account the expertise, knowledge, and strengths of the community in order to provide a platform for authentic engagement between the evaluator and the community?
TRANSFORMATIVE MIXED METHODS DESIGN: TRENTON OBESITY STUDY

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February 2017
■ Preserves assumptions of original paradigms (Post-Positivist, Constructivist, Pragmatic, Transformative

■ Processes and data from each part of the study are brought into dialogue with each other

■ MM researcher’s role is to facilitate the dialogue with differences being respectfully acknowledged and explored

■ Often done with teams of researchers who represent different paradigms.

DIALECTICAL PLURALISM

Johnson and Schoonenboom, 2015
<table>
<thead>
<tr>
<th>Quant</th>
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<tbody>
<tr>
<td>• Extant data on breast feeding</td>
</tr>
<tr>
<td>• Mother’s satisfaction</td>
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<table>
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<tr>
<th>Concurrent</th>
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<tr>
<td>• RCT comparing group vs. routine care</td>
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<td>• Case studies</td>
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<tr>
<th>Integration</th>
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<tbody>
<tr>
<td>• No difference between groups (RCT)</td>
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<tr>
<td>• Qual: Reasons for low attendance</td>
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</tbody>
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**BREAST FEEDING IN SCOTLAND (HODDINOTT, BRITTEN & PILL 2010)**


RESOURCES


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