Mixed, mixing and multiplying methods

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Why mixed methods?

“Methods should be mixed in a way that has complementary strengths and non-overlapping weaknesses. It involves the recognition that all methods have their limitations as well as their strengths”

What is mixed-methods really?

• Utilizing multiple methods (qual and quant)
  • Basic definition that it should combine two or more methods
• Intentionally integrating and combining these methods to draw on the strengths of each
• Framing the investigation within multiple philosophical and/or theoretical positions.
• Pragmatic methodology
Critics (Creswell, 2007)

- Is there a post-positivist leaning to mixed methods?

- What are the limits for mixed methods research?

- Is there a dominant discourse in mixed methods research?
Why mix?

Validity
- to corroborate quant and qual data

Offset
- offset weaknesses of quant and qual and to draw out strengths

Completeness
- more comprehensive account that quant or qual alone

Process
- quant provides outcomes, qual the processes

Explanation
- qual can explain quant results or vice versa

Unexpected results
- surprising results from one, other explains

Instrument development
- qual employed to design instrument

Credibility
- both approaches enhance integrity of findings

Context
- qual provides context; quant provides general

Utility
- more useful to practitioners
Triangulation

- Denzin (1970) – Heavily influence by Wright Mills and the Chicago School of Urban Sociology. Reflexive and Interpretive
  - Date triangulation: involves time, space and people
  - Investigator triangulation: involved multiple researchers in an investigation
  - Theory triangulation: involved using more than one theoretical scheme in the interpretation of the phenomenon
  - Methodological triangulation: involved using more than one method to gather data, such as interviews, observations, questionnaires and documents

- “By combining multiple observers, theories, methods and empirical materials, researchers can hope to overcome the weakness or intrinsic biases and the problem that come from single method, single-observer and single-theory studies.”
## Design considerations

<table>
<thead>
<tr>
<th>Approach</th>
<th>Type</th>
<th>Purpose</th>
<th>Limitations</th>
<th>Resolutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUAL + quan</td>
<td>Simultaneous</td>
<td>Enrich description of sample</td>
<td>Qualitative sample</td>
<td>Utilize normative data for comparison of results</td>
</tr>
<tr>
<td>QUAL</td>
<td>Sequential</td>
<td>Test emerging H, determine distribution of phenomenon in population</td>
<td>Qualitative sample</td>
<td>Draw adequate random sample from same population</td>
</tr>
<tr>
<td>QUAN + qual</td>
<td>Simultaneous</td>
<td>To describe part of phenomena that cannot be quantified</td>
<td>Quantitative sample</td>
<td>Select appropriate theoretical sample from random sample</td>
</tr>
<tr>
<td>QUAN</td>
<td>Sequential</td>
<td>To examine unexpected results</td>
<td>Quantitative sample</td>
<td>Select appropriate theoretical sample from random sample</td>
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</table>
How to mix?

1. Converge data

2. Connect data

3. Embed the data
What does MM mean for research evaluation?

• Move from logic-model of research production and its evaluation to a more democratic model of co-production and co-information (realist evaluation model)
The COMbINE Network

The future of evaluation is mixed

(http://combine.cwts.nl)