Mixed methods research: quality
What does quality mean?

• Depends on
  • Paradigm
  • Who is asking the question and for what purpose
What paradigms are suitable for mixed methods research?

- Within a ‘traditional’ paradigm
- ‘New’ paradigm
  - Pragmatism - if it works do it
  - Hammersley’s ‘subtle realism’ (Hammersley 1992)
  - Bhaskar’s critical realism
  - Mertens transformative - social justice
    (Transformative Mixed Methods Research. Qualitative Inquiry 2010;16:6 469-474 )
Who

Research commissioners

Research users: policy makers lay people professionals

Mixed methods research

Researchers

Evidence synthesisers

Lecturers and students
What

- Proposals
- Reports
- Journal articles
- Summaries/ press reports
- Studies

1. **Good Reporting of A Mixed Methods Study** (GRAMMS)

1. Justification for using mixed methods
2. Design: purpose, sequence, priority
3. Each method: sample, collection, analysis
4. Integration: where, how and who
5. Limitations: one method limits another
6. Insights from mixing

(O’Cathain A et al. Journal of Health Services Research and Policy, 2008;13:92-98)

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2. Fabregues Molina review for mixed methods studies

• Planning
  • A rationale for mixed methods
  • Philosophical assumptions clear
  • Study purpose clear
  • Literature review to situate the study
  • Literature cited on mixed methods
• **Undertaking**
  • Quantitative and qualitative undertaken to good quality
  • Integration of quan and qual occurs
  • Design described
  • Sampling, data collection and analysis of quan and qual linked to aim
  • Sampling, data collection and analysis of quan and qual described in detail
  • Design is linked to aim
  • Design matchers rationale for mixed methods
Interpreting

- Inferences consistent with study findings
- Inconsistencies between qual and quan findings stated
- Inferences consistent with study aims
- Balanced meta-inferences
Disseminating

- Research process reported clearly
- Added value from mixed methods described
- Value for policy and practice described
3. US funding body

3. Mixed systematic reviews

**MMAT: Welcome to the public wiki 'Mixed Methods Appraisal Tool'**

4. Systematic review: MMAT

1. Qualitative (4 items)
2. Quantitative RCT (4 items)
3. Quantitative non-randomised (4 items)
4. Quantitative descriptive (4 items)
5. Mixed methods (3 items)
   - Relevance of design to question?
   - Relevance of integration of research question
   - Consideration of limitations of integration?
5. Comprehensive Framework

ASSESSING THE QUALITY OF MIXED METHODS RESEARCH

Toward a Comprehensive Framework

◆ Alicia O'Cathain
Framework: domains of quality

1. Planning quality
2. Design quality
3. Data quality
4. Interpretive rigour
5. Inference transferability
6. Reporting quality
7. Synthesisability
8. Utility
2. Design quality

a) Design transparency: describe design
b) Design suitability: is it appropriateness for research question?
c) Design strength: optimise breadth, depth, weakness, strength (weakness minimisation legitimation)
d) Design rigour: implemented so that stays true to design
3. Data quality

a) Data transparency: methods described in detail
b) Data rigour: Methods implemented well
c) Analytic adequacy: analysis undertaken properly, necessary sophistication
d) Analytic integration rigour: any integration at analysis stage is good, conversion quality
4. Interpretive rigour

Are the conclusions based on the findings of the study? (Teddlie & Tashakkorri, foundations of mixed methods research, 2009)

a) Interpretive transparency: which findings relate to which methods

b) Interpretive consistency: inferences consistent with findings

c) Theoretical consistency: inferences consistent with current knowledge or theory
a) Interpretive agreement: others likely to reach same conclusions

b) Interpretive distinctiveness: conclusions more credible than others

c) Interpretive efficacy: *meta-inference* is balance of inferences)

d) Interpretive bias reduction: non-convergent findings explained

e) Interpretive correspondence: relate to research question
5. Inference transferability

Where conclusions can be applied to

a) Ecological
b) Population
c) Temporal
d) Theoretical
Group work

• Apply Fabregues & Molina-Azorin (2016) to

• Gallaher CM, Kerr JM, Njenga M, Karanja NK, WinklerPrins AMGA. Urban agriculture, social capital, and food security in the Kibera slums of Nairobi, Kenya. Agric Hum Values (2013) 30:389–404