Mixed Methods in Evaluation

Kate Winter, PhD

Vienna Evaluation Network

11 April 2019

Overview

- What do we mean by “mixed methods”
- Purposes for using mixed methods
- Approaches & timing
- Examples
- Discussion

Defining Mixed Methods

- “combines elements of qualitative and quantitate research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration.”

-- Johnson et al., 2007, p. 123.

Mixed versus Multiple Methods

- Both use qualitative and quantitative approaches
- Both can triangulate findings
- Mixed intentionally seeks “better understanding” through combining qualitative and quantitative approaches at different levels

Levels of Mixing

- Method – Tools (ask, observe, analyze ‘traces’)
- Methodology – Approaches (case study, experiment, grounded theory, ethnography, phenomenology, etc.)
- Philosophical paradigm – Belief systems (ontology and epistemology)
- Values – Motivations (social justice, equity, etc.)

(Greene, 2015)

Getting Started with Mixed Methods

- Have a clear justification and purpose for mixing
  - Identify the most important phenomena/constructs to address through mixed methods (Variables, relationships, phenomena, research/evaluation questions)
  - For each, identify purposes/goals for mixing methods
    - More comprehensive understanding
    - Stronger, more defensible understanding
    - More insightful understanding
  - Intentionally plan for integration

(Greene et al. 1989, Greene, 2007)

More Comprehensive Understanding

- **Complementarity** seeks to elaborate, enhance, illustrate, or clarify the results from one method through those of the other method. Methods assess different facets of the same construct.
- **Development** uses results from one method to inform the development of the other method. Methods measure the same constructs sequentially.
- **Expansion** seeks to extend the breadth of a study by adding a different method that permits assessment of another construct.

Stronger, More Defensible Understanding

- **Triangulation** seeks convergence and/or corroboration of results from different methods, both measuring the same construct, to enhance the validity of inferences for that construct.

More Insightful Understanding

- **Initiation** seeks and welcomes the discovery of paradox and new perspectives through the pursuit of alternative analyses when results from different methods do not agree.

Additional Rationales for Mixed Methods

- **Credibility** – using both approaches enhances integrity of findings
- **Context** – qualitative findings provide context for generalizable quantitative findings
- **Illustration** – qualitative data provides richness to quantitative data (tells the story)
- **Utility** – mixed methods findings are more useful, useable
- **Confirm & discover** – generate (qual) and test (quant) hypotheses within a single project
- **Diversity of views** – a) combines researchers' (quant) and participants' (qual) perspectives; b) uncovers relationships between variables (quant) while revealing meanings (qual)

(Bryman, 2006; Schooneboom & Johnson, 2017)

Questions to Reflect on

1. Complementarity
2. Development
3. Expansion
4. Triangulation
5. Initiation

- Why do you plan to use both qualitative and quantitative methods in your study?
- Why do you plan to use more than one data collection strategy?
- Why do you plan to collect both qualitative and quantitative data?
- What are the uses of the qualitative and quantitative data or findings in your study?

(Creswell & Plano Clark, 2017)

Final Thoughts on Purposes

- Post hoc (classification) or a priori (study design)
- Not mutually exclusive
- Meant to guide planning and/or reflection
- Should be intentional, even if emergent
- Should align with research/evaluation goals and purpose

Approaches & Timing

- Convergent parallel (simultaneous but independent, with integration point/s)
- Explanatory sequential (quant findings are then explained by qual)
- Exploratory sequential (qual findings are then explored by quant)
- Concurrent (simultaneous & integrated, embedded design)
- Transformative and/or multiphase: combines/crosses convergent, sequential and/or concurrent
- Timing and dependence are separate but related
- Core component must be rigorous enough to stand alone; supplemental component does not

Integration

- Basic levels:
  - Results (joint display)
  - Analytical (qualitizing or quantitizing)
- More granular levels:
  - Conceptualization
  - Data collection
  - Data analysis
  - Reporting
- Even more granular examples:
  - Mixing within tool development (e.g., using cognitive interviews to improve a survey instrument)
  - Selecting a sample for interviews based on survey results (probalistic or purposeful)

(Schooneboom & Johnson, 2017)

Evaluation Applications

- "To what extent and in what ways…"
  - Quantitative assessment of degree (implementation, engagement, outcomes, strength of relationships with outcome, etc.)
  - Qualitative assessment of mechanism of change, relative importance, etc.
- Student engagement (construct)
  - Complementarity: structured questionnaire soliciting engagement levels PLUS open-ended interview questions
  - Development: results of unstructured observations inform the development of a structured survey
  - Triangulation: multiple perspectives from interviews/focus groups of participants and project staff, compared to responses on scaled survey items
  - Expansion: adding a structured observation engagement scale to a qualitative ethnography
  - Initiation: rarely planned, but a useful placeholder in case different methods/ data sources result in conflicting results about a program's impact

Examples

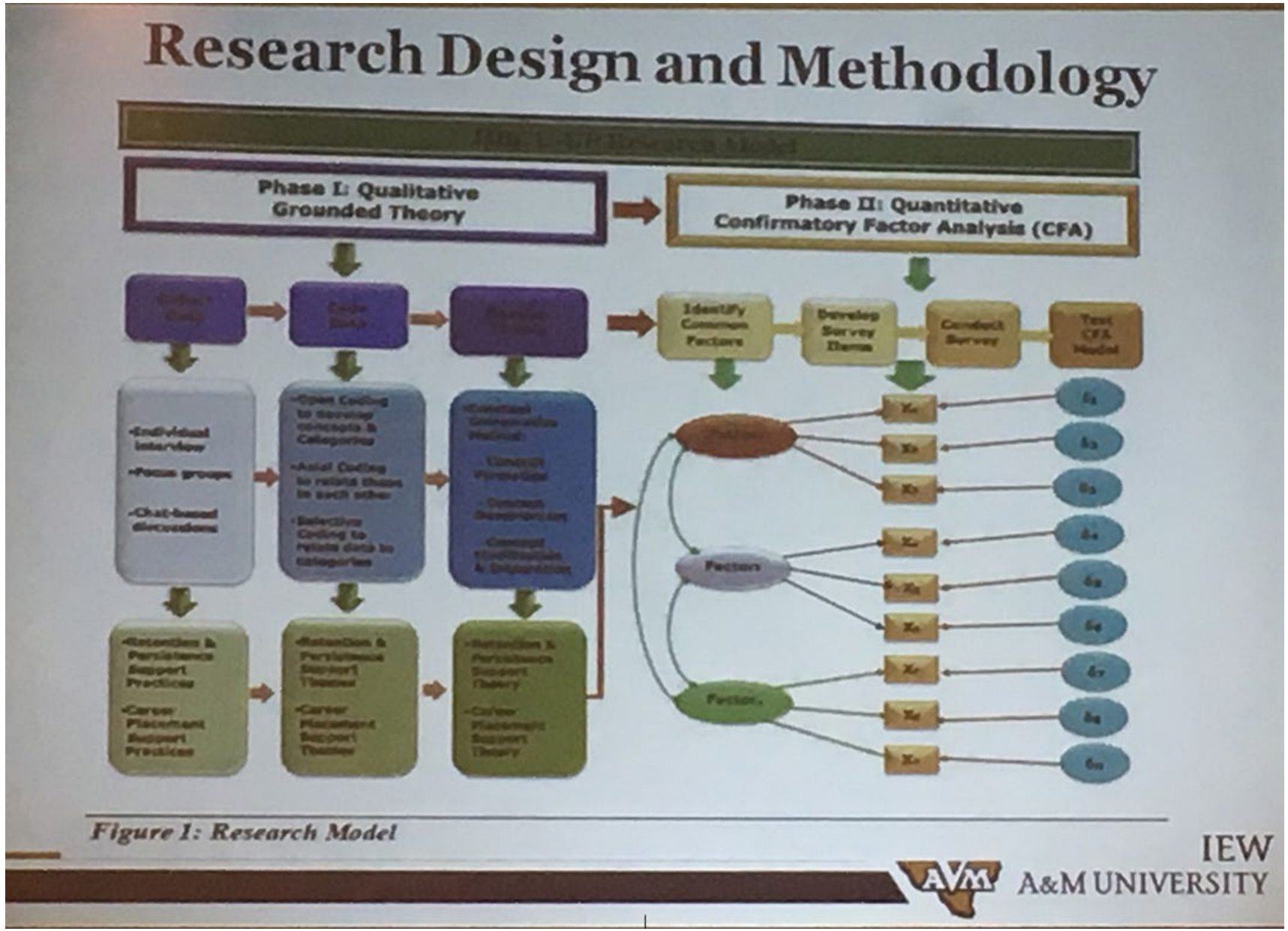
- QUAL + quant (concurrent design, qual core with supplemental quant)
- QUAL → quant (sequential design, qual core with supplemental quant)
- QUANT + qual (concurrent design, quant core with supplemental qual)
- QUANT → qual (sequential design, quant core with supplemental qual)
- QUAL + QUANT / QUANT + QUAL (equal status concurrent design)
- QUAL → QUANT (equal status sequential design)
- QUANT → QUAL (equal status sequential design)
- (QUAL + QUANT) → QUANT → QUAL (equal status, 3 phase concurrent to sequential design)

(Schooneboom & Johnson, 2017)

Example from CARE 2019

Fred A. Bonner II, PhD

QUAL → QUANT

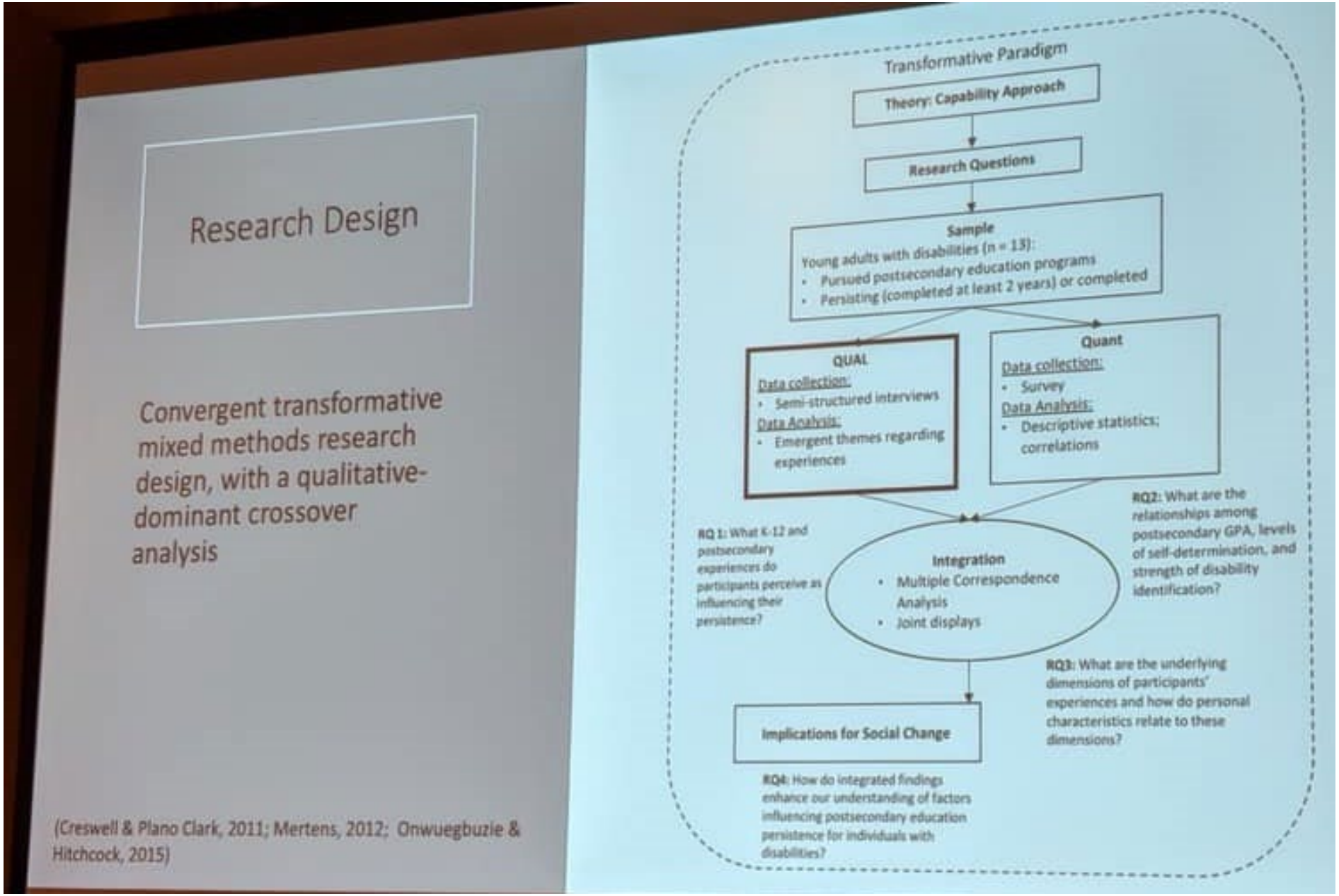


Example from AERA 2019:

Elisabeth Kutscher, EdD

AERA Mixed Methods SIG Dissertation Award (2019)

QUAL + quant



FITW Research Aligned Mentorship Program

Construct	Mixed Purpose	Mixed Approach
Program Implementation	More comprehensive understanding (complementarity, development)	QUAL → quant
Student engagement with program	More comprehensive understanding (complementarity, development); Stronger, more defensible understanding (triangulation)	(QUAL + QUANT) → QUANT QUAL + quant
Student outcomes	More comprehensive understanding (complementarity, expansion); Stronger, more defensible understanding (triangulation)	QUANT + QUAL QUANT + qual

FITW Research Aligned Mentorship Program (2)

Construct	Mixed Approach	Integration Point(s)
Program Implementation	QUAL → quant	Instrument design, analysis, reporting
Student engagement with program	(QUAL + QUANT) → QUANT QUAL + quant	Instrument design, sampling, data collection, analysis, reporting
Student outcomes	QUANT + QUAL QUANT + qual	Data collection, analysis, reporting

Thank you!

Questions or Comments?

Cited References

- Bryman, A. (2006). Integrating quantitative and qualitative research: How is it done? *Qualitative Research*, 6, 97–113.
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3rd ed.). Sage Publications.
- Greene, J. C. (2007). *Mixed methods in social inq*uiry. San Francisco: Jossey-Bass.
- Greene, J. C. (2015). Preserving distinctions within the multimethod and mixed methods research merger. In S. Hesse-Biber & R. B. Johnson (Eds.), *The Oxford handbook of multimethod and mixed methods research inquiry*. New York: Oxford University Press.
- Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a Conceptual Framework for Mixed-Method Evaluation Designs. *Educational Evaluation and Policy Analysis*, 11, 255–274.
- Guba, E. G. (1990). *The Paradigm dialog*. Sage Publications.
- Johnson, R. B., & Onwuegbuzie, A. J. (2007). Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research*, 1, 112–133.
- Morse, J. M. (1991). Approaches to Qualitative-Quantitative Methodological Triangulation. *Nursing Research*, 40(2).
- Schoonenboom, J., & Johnson, R. B. (2017). How to Construct a Mixed Methods Research Design. *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 69(Suppl 2), 107–131.

Additional Suggested Readings

- Harrits, G.S. (2011). More than method? A discussion of paradigm differences within mixed methods research. Journal of Mixed Methods Research, 5(2), 150-166.
- Cresell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Los Angeles: Sage.
- Mertens, D. M. (2012). Transformative Mixed Methods: Addressing Inequities. *American Behavioral Scientist*, *56*(6), 802–813.
- Onwuegbuzie, A. J., & Hitchcock, J. H. (2015). *Advanced Mixed Analysis Approaches*. (S. N. Hesse-Biber & R. B. Johnson, Eds.). Oxford University Press. Patton, M.Q. (2015). Designing qualitative studies. *Qualitative research & evaluation methods,* chapter 5. Los Angeles: Sage.
- Shannon-Baker, P. (2016). Making paradigms meaningful in mixed methods research. *Journal of Mixed Methods Research*, 0(4), 319-334.
- Teddlie, C., & Tashakkori, A. (2010). Overview of contemporary issues in mixed methods research. In A. Tashakkori & C. Teddlie (eds.), *Sage handbook of mixed methods research*, 2nd ed. (pp. 1-41). Thousand Oaks, CA: Sage.
- Teddlie, C. & Yu, F. (2007). Mixed methods sampling: a typology with examples. *Journal of Mixed Methods Research, 1*(1), 77–100.