

UNIVERSITY OF ILLINOIS  
AT URBANA-CHAMPAIGN

# Mixing methods, methodologies, and paradigms in evaluation: Meaningfully engaging with difference

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Jennifer C. Greene



[illinois.edu](http://illinois.edu)



# Overview

## Thinking well about mixing methods

- I. Mixing methods on purpose: Primary rationales and purposes for mixing
- II. Mixing at various levels: Just what is being mixed in MM evaluation? Design options and dimensions
- III. The mixing in mixed methods inquiry: How are the challenges of mixing or integration addressed?
- IV. Mixing to meaningfully engage with difference



- Illustration of these mixed methods ideas in specific culturally diverse evaluation contexts
- Comments, questions, discussion – throughout our time together



# Introductions

- Partner conversations and introductions
- Expectations for our time together



# Example

- Ungar, M. & Liebenberg, L. (2011).  
Assessing resilience across cultures using mixed methods: Construction of the Child and Youth Resilience Measure. *Journal of Mixed Methods Research*, 5(2), 126-149.



# Culturally Responsive Evaluation Example I

- ‘Practical literacy’ program for recent immigrants to the US from Central and South America
- Aims – to support these families, and to catalyze economic development from the ‘ground up,’ through educative development of individual skills and agency
- Program logic – Freirian model of adult conscientization and development



# Culturally Responsive Evaluation Example II

- Community-based health care initiative for the urban poor, in two cities in the eastern US
- Aims – to provide community-based services and to connect residents to national health care insurance
- Program logic – community development, individual agency



# I. MM Major Rationales

- Better understanding of complex phenomena
- Meaningful engagement with difference
- Via multiple and diverse:
  - Perspectives, standpoints, ways of seeing
  - Experiences, meanings
  - Representations ~ magnitude and quality
  - Values, ideals





# Specific Purposes for Mixing

Better understanding as:

- Enhanced validity of inferences = *triangulation*

EX: Practical literacy program – measuring key outcome of ‘agency’ via both a pre-structured, standardized measure and an unstructured, contextualized measure

→ *Challenges of triangulation*



Better understanding as:

- More comprehensive understanding of multiple dimensions/facets of a complex phenomenon = *complementarity*

EX: Practical literacy program – assessing the quality of implementation with both a theory-driven observation checklist and interpretive interviews with participants

→ *‘Popularity’ of complementarity*



Better understanding as:

- New and generative insights through pursuit of dissonant results from two different methods = *initiation*

EX: community health program – generating an insight into meanings of “health security” for participants through reanalysis of divergent results from standard measures and interviews


→ *Planning for initiation?*



Better understanding as:

- More contextually and practically appropriate data, as the results from one method are used to inform the ‘development’ of another method = *development*

EX: community health program – purposefully selecting interviewees from the outliers in a regression analysis of key factors contributing to program outcomes

 → *Being creative with development*

Better understanding as:

- Extended reach or scope of the study through inclusion of more than one kind of method = *expansion*

EX: Evaluating the community health program program by including qualitative group interviews or observations, in addition to a battery of standardized, quantitative measures

→ *Expansion now passé?*



# Reprise: MM Rationale & Purposes

- Better understanding through engagement with *different* perspectives, standpoints, ways of knowing ...
- Better understanding as:
  - Triangulation
  - Complementarity
  - Initiation
  - Development
  - Expansion



# II. MM Designs and Design Dimensions

- Design follows purpose
- Design in practice more complex than in theory; most MM studies include multiple measures and methods and multiple MM purposes
- Relative wealth of MM design typologies (Taskakorri and Teddlie, Creswell)



# Key Design Issues

1. At what level is the mixing happening?

Method



Methodology



Paradigm, assumptions





2. What is the status or parity of the different methods, methodologies, paradigms?

one dominant and the other secondary OR  
intentional parity of methods

3. At what point(s) in the study does the mixing happen?

throughout OR at the interpretation stage

4. Are the methods sequenced or concurrent?



# EX: Practical Literacy Program for US Immigrants

- Evaluation of the quality of the program as implemented
- Questions of fidelity and of experiential meaningfulness
- MM purpose = complementarity
- MM plan ~ structured observation of theory-driven program components + unstructured, interpretivist interviews of participant experiences



# MM Design

## 1. What is being mixed?

All levels

## 2. When does the mixing happen?

Iteratively, throughout data collection, analysis and interpretation

## 3. With what parity of method?

Equal weight

## 4. And with what sequence?

Concurrent



# Further applications

1. For our two sample evaluations or for an evaluation you are conducting, think of one *key construct* central to your evaluation.
2. Think about the contributions MM could make to assessment of this construct.
3. For what purpose would you want to mix methods?
4. With what MM design, and rationale?



# Reprise: MM Design

- Main challenge is thoughtful application of MM design ideas and typologies in the literature, rather than formulaic selection of a particular design
- Key to effective MM design are:
  1. Matching design to MM purpose
  2. Attending to the identified critical dimensions of MM design



# III. The ‘mixing’ in MM inquiry: The challenges of integration

- Integration is a cognitive task/challenge
- Most MM integration happens during interpretation and inference generation
- Integration can be facilitated by integrative analyses
- Only appropriate for some MM purposes (complementarity, initiation, maybe development)



# MM Integrated Data Analysis: A Few Snapshots

- General stages of data analysis
  - Data cleaning
  - Data reduction and description
  - *Data transformation*
  - *Data correlation and comparison*
  - *Analyses for inquiry conclusions and inferences*



# Framework: Integrated Analyses

Data transformation,  
enabling joint analyses

Data transformation, one  
form to another

Data consolidation or  
merging, multiple data  
sets into one

Data comparison and  
correlation, looking for  
patterns

Data importation  
Extreme case analysis  
Integrated data display

Major analyses, leading to  
inferences and  
conclusions

Warranted assertion  
analysis  
Pattern matching  
Integrated data display





# Data comparison, data importation, *and* extreme case analysis example

Jang, E.E., McDougall, D.E., Pollon, D.,  
Herbert, M., & Russell, P. (2008).

Integrative mixed methods data analytic  
strategies in research on school success in  
challenging circumstances. *Journal of  
Mixed Methods Research*, 2(3), 221-247.



- Focus – developing a multidimensional understanding of school success for schools serving low-income immigrant families and children (Ontario, Canada)
- Concurrent MM design, n=20 schools (purposefully selected)
  - Interviews and surveys with teachers, principals
  - Focus groups with students and parents
  - Purpose of complementarity



- Descriptive and reductive analyses
  - Interview data analyzed → 11 themes associated with school improvement
  - Survey data analyzed → 9 factors associated with school improvement
- Integrative analyses
  - ***Transformed*** survey results to narrative form
  - ***Compared*** to qualitative themes



- Next, created new survey ‘scales’ from interview themes
  - Of 75 survey items, 63 were judged to relate to the interview themes
  - 3 interview themes not present in survey items
  - Assigned the 63 items to one of the remaining 8 themes
  - ***That is, used the structure of meaning in the interview data to ‘rescale’ and then reanalyze the survey data***
- New ‘blended’ scales showed more variation than original survey factors



- Further analyzed blended themes
- For each theme, identified schools with a mean score significantly different from overall mean (*extreme cases*)
- ***Returned to qualitative data*** to provide contextually rich narrative of the nature and contours of the theme at the selected schools
- Wrote narrative case profiles by theme → understanding the contextual meanings of ‘high’ and ‘low’ for that theme



- Example for ‘parent involvement’ theme
  - ‘High’ school
    - Community with 25 different languages
    - School active in multiple parent programs, some in partnership with local service agencies
    - One teacher serves as community liaison with parents and families
    - Principal walks around community getting to know families
    - Principal personally visits parents of children placed ‘at risk’ and generates with them a ‘game plan for their child
    - Parents perceived school as welcoming and ‘on their side’



## – ‘Low’ school

- Similar demographics as ‘high’ school, more central city
- Same recent history of academic success
- Recently, principal and teachers have concentrated on school safety
- Principals recognizes importance of strong parental involvement; school needs to turn energies to this domain



# Pattern matching

- Hypothetical example:
  - Evaluation of a professional development program for social scientists
  - Focus on learning applications of new spatial technologies, like GIS and social network analysis
  - Assessments of quality of program experience:
    - Questionnaire ratings on intended components of program design
    - Interviews with purposeful sample regarding dimensions of meaningfulness in program experience





- Array two data sets side by side and look for matching patterns
- First example – Match of congruence and *confirmation*



*Quest items, ranked by means, highest to lowest*

- Information and software current
- Content relevant to my own work
- Activities at a high level of challenge
- Learning environment enjoyable, supportive
- Concrete evaluation examples facilitated my learning

*“Qual” clusters, ranked by “dimension of value”, hi to lo*

- Relevant to own work
- Demanding and challenging material and activities
- Respectful and supportive pedagogy
- Easily accessible hardware and software
- Distracting peers



- Second example – Match of elaboration, greater richness (complementarity)



*Quest items, ranked by means,  
highest to lowest*

- Information and software current
- Content relevant to my own work
- Activities at a high level of challenge
- Learning environment enjoyable, supportive
- Concrete evaluation examples facilitated my learning

*“Qual” clusters, ranked by  
“dimension of value”, hi to lo*

- Relevant to own work
- Important for current research
- Critical for my students
- Intellectually engaging
- “Food for the soul of my mind”
- Demanding and challenging material and activities
- Respectful and supportive pedagogy
- Engaging peers
- Strong learning community
- Easily accessible hardware and software
- Distracting peers



- Third example – No match  $\rightarrow$  empirical puzzle?



*Quest items, ranked by means, highest to lowest*

- Information and software current
- Content relevant to my own work
- Activities at a high level of challenge
- Learning environment enjoyable, supportive
- Concrete evaluation examples facilitated my learning

*“Qual” clusters, ranked by “dimension of value”, hi to lo*

- Exciting, fun ideas
- Cool software
- Critical value of thinking spatially
- Useful for my students as well
- Wonder about the political valence of these analyses



- Fourth example – Incongruence, dissonance, contradiction, in terms of salience and value of program components

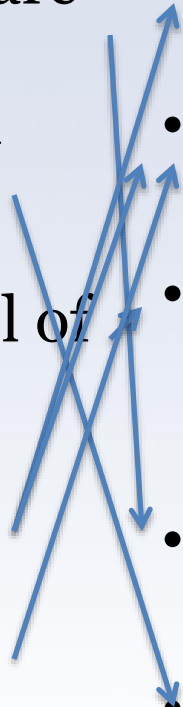


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*“Qual” clusters, ranked by “dimension of value”, hi to lo*

- Strong learning community
- Respectful and supportive pedagogy
- Demanding and challenging material and activities
- Easily accessible hardware and software
- Relevant to own work
- Intellectually engaging





# Reprise: 'Mixing' via Integrated Data Analysis

- Challenges of mixing in MM inquiry remain
- Further development of integrated data analyses offers one avenue for meaningful mixing



# IV. MM in Culturally Responsive Evaluation

- What are the particular contextual challenges and opportunities in mixed methods development evaluation?
- Challenges:
  - Resources ~ time, money, expertise
  - Legitimacy of various methods
  - Decision-oriented framework
  - Dissonant results



- Opportunities:
  - More comprehensive evaluations – design (program theory), implementation, and outcomes
  - Meaningful insights not otherwise obtained
  - Respect for and inclusion of diverse perspectives and worldviews (e.g., generality and contextuality)
  - Valuing of and engagement with difference
  - Greater acceptance of evaluation in context



In the “practical literacy” for immigrants program context, a MM evaluation could:

- Take more time and money than available
- Require methodological expertise not available within the evaluation team
- Address questions beyond those needed for immediate decisions
- ...



In the “practical literacy” program context, a MM evaluation could *also*:

- Address questions beyond those needed for immediate decisions
- Generate important and useful program insights
- Demonstrate a valuing of local perspectives and experiences → greater support for the program

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- Comments, challenges, critiques?
- Relevance to your own contexts?
- Other items for discussion?

