Integrating Mixed Methods in Process and Impact Evaluation

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“Scaling up of all ten [nutrition-specific] interventions to 90% coverage was associated with a mean 20.3% (range 10.2–28.9) reduction in stunting and a 61.4% (35.7–72.0) reduction in severe wasting.” Bhutta, Z.. et al., *Lancet* 2013; 382: 452–77
Theres a problem with the nut...
Outline

How can “mixed methods” improve the quality and utility of evaluations of complex, integrated programs?

How do we use MM throughout program design, monitoring, learning and evaluation?

Methodological and capacity considerations for rigorous mixed methods.
Two Worldviews

Positivist / Empirical

- Measure magnitude, trends, causes, effects
- RCTs, QE, observational
- Large, representative samples
- Surveys, anthropometry, opinion polls, exit interviews
- Analysis is statistical / econometric

Constructivist / Interpretive

- Gain detailed understanding
- Ethnography, case study, narrative, grounded theory
- Small, purposive samples
- Focus group discussions, un/semi-structured interviews; case studies; video/photovoice; observation
- Analysis is iterative and interpretive
## Limitations to Both

<table>
<thead>
<tr>
<th>Positivist / Empirical</th>
<th>Constructivist / Interpretive</th>
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<tbody>
<tr>
<td>Assumes implemented as planned, unable to unpack black box of program processes</td>
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<td>Standardized tools fail to capture nuance and are not adaptable to changing conditions</td>
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<td>Risk becoming decontextualized</td>
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<td>Lack depth and detail</td>
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<td>Sampling may produce biased findings</td>
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<td>Analysis perceived as subjective / opinion / anecdotal</td>
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<td>Limited capacity to examine causality</td>
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<td>Designed to be context specific, not generalizable</td>
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<td>Limited isolation of / control for individual influencers</td>
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Integrating Two Worldviews

- Compensates for limitations of each strategy
- Reconstruction and validation of baseline conditions
- Broaden methods for definition and estimation of counterfactuals
- Triangulation increases validity/credibility of findings
- Greater buy-in across variety of stakeholders
What do I mean by Triangulation?

Women’s empowerment

Case study

FGD

HH Survey

Analysis and Findings

Convergence / Agreement

Increased credibility / validity of findings

Inconsistencies

Further exploration needed to understand inconsistencies
Complex approaches have complex questions

Does it work?

How does it work and at what costs? Which components and delivery platforms matter most in a given /changing context? What are the unintended consequences?

For whom does it work, and why?

If it does not work, why not? Implementation failure or design failure? What changes would be most effective?

How do program partners engage / interact / change? What are implications for scale up and sustainability

How will program components and partners interact with and adapt to social, political and environmental change?
Mixed Methods Designs

Sequential
- Exploratory
  - Qual → Quant
- Explanatory
  - Quant → Qual

Concurrent
- Conducted simultaneously

Cross-sectional / longitudinal

different combinations of designs are used throughout the program life cycle to answer different questions
Mixed Methods Through the Program Cycle

Program
- Formative Assessment & Planning
- Impact Evaluation
- Monitoring & Process Evaluation

Data Collection → Analysis → Action → Dissemination
Sequential Exploratory Design for Tool Development

**Phase One**
- **QUAL Inquiry**
- Develop Tool
- QUAL Findings

**Phase Two**
- QUANT survey
- QUANT Findings
- Overall findings and interpretation

**Women’s Empowerment in Livestock Index**

- IDIs / FGDs to explore empowerment
- **Domains**: assets, decision-making, IPV, time use, voice
- **Terminology**
- **Context**: religion, region, livelihoods / value chain

**Administer Survey and Analyze Data**
- Measure domains and prevalence of empowerment
- Analyze associations between WELI and maternal and child nutrition
- Assess impacts of dairy hubs on WE

Adapted from: Creswell & Clark 2007
Concurrent Design for Formative Research

QUANT Survey
QUANT Analysis
QUAL Inquiry
QUAL Analysis

HH Survey with PLW and GM
IYCF, rMN knowledge and attitudes, uptake of health/ nutrition services, food insecurity

Multi-level IDIs and FGDs
Community context
Key influencers and decision makers in household for IYCF rMN
Rationale underlying IYCF rMN decision-making
Household roles, responsibilities and age/gender hierarchies

Development of Grandmother Focused Strategy for MCN

Overall findings and interpretation

Adapted from: Creswell & Clark 2007
Mixed Methods Through the Program Cycle

Formative Assessment & Planning

Program

Impact Evaluation

Monitoring & Process Evaluation

Data Collection → Analysis → Action → Dissemination
Mixed Methods Monitoring and Process Evaluation

**ROUTINE MONITORING**

Documentation of program activities, participation, changes in context

- feedback sessions with implementing actors
- Structure / unstructured observations of program activities
- Assessments in comparison sites
- Rapid LQAS monitoring surveys of participation and changes in critical behaviors

**DEEP DIVES**

- Multi-level – includes beneficiaries, implementation actors, other stakeholders
- Deep dive qualitative → Observations, IDIs, case studies, focus group discussions
- Single round (ie. midline) or two rounds
- May include midline survey
- Integrated analysis of monitoring + deep dive → process evaluation
Mixed Methods Process Evaluation

- Monitoring + Deep Dives
  - Understand how a program is running with respect to the underlying theory of change
    - reach, coverage, fidelity
    - Design failure vs. implementation failure
- Documents
  - constraints to optimal program delivery and potential solutions for testing through operations research
  - differential program delivery
  - Changes in context that can influence attribution
- Captures multiple perspectives on aspects of program delivery to inform change, scale up / out, sustainability
Mixed methods monitoring and PE to improve program performance and achieve impacts in the Mama SASHA project

2008  2009  2010
Plan, pilot intervention program, develop impact pathway, design evaluation

2011  2012  2013  2014  2015
Design cohort & costing studies

Baseline survey (Mar-May 2011)

Full Intervention: community implementation

Nested Cohort Study (Oct 2012-June 2014)

Costing Study (Dec 2011-June 2013)

PE for full program Apr-Aug 2012

Endline survey (Mar-June 2014)

Analysis & Write-Up (ongoing)

Vine distribution to control communities (Mar-June 2014)

Pilot intervention in other communities (May 2010-Mar 2011)

PE of pilot Nov-Dec 2010

CNA/ AM Apr & Jun 2008

monthly community monitoring quarterly partner meetings Quarterly mapping of control sites (Apr 2011-Aug 2013)

Cole et al, 2016 Eval Program Plan 56: 11–22
Mixed Methods Monitoring and Process Evaluation
Increasingly we see mixed methods used for formative work, tool planning and process evaluation - however its use in impact evaluation is still somewhat limited – and this limits the interpretive power of our impact evaluation. Traditional quantitative IE, often considered the gold standard, typically relies on unidimensional indicators (anthro, knowledge) but many of the domains we seek to effect change in along our impact pathway are complex – think empowerment, poverty, food insecurity, social capital / cohesion -- As well – while the impacts we measure may be important for us, there may be more important impacts in the mind of the community – identifying and honoring these can support community engagement and sustainability – and may also provide us the opportunity to capture unintended consequences that may undermine sustainability -- capturing these however often requires a participatory and qualitative inquiry.
Mixed Methods Impact Evaluation

**Sequential Explanatory**
Qual inquiry following endline survey to provide greater information of particular findings or explore inconsistencies

**Convergent:**
In depth interviews / household observations with purposive sample of beneficiaries over life of program to develop narrative case studies of change
Participatory rural appraisals with before / after timeline activities
Most Significant Change

Both require *a priori* planning in regards to timing and budgets.
Ex. Most Significant Change

‘During the last month [year / since program began], in your opinion, what was the most significant change that took place for participants in the program?’

‘From among all these significant changes, what do you think was the most significant change of all?’

Mixed Methods Impact Evaluation

Figure 1. The MSC selection process (example from ADRA Laos)

From Davies and Dart, 2005. Most Significant Change Tool: http://www.mande.co.uk/docs/MSCGuide.pdf

can be collected as verbal stories or photos/videos taken and explained by community members; selection can be programmatically led or community led.
Concurrent Impact Evaluation

QUANT Survey

QUANT Analysis

QUAL Inquiry

HH Survey with PLW and GM
Prevalence of IYCF practices
IYCF, rMN knowledge / attitudes, FIS,
uptake of health/nutrition services
Facility survey of birthweights from 2013–2016

Multi-level IDIs and FGDs
Most significant change (GM, husbands, mothers)
Key informant interviews (MoH staff, community elders)
Narrative case studies with GM leaders

Evaluation of Grandmother Focused Strategy for MCN

Overall findings and interpretation
What qualifies as mixed methods?

“any methodological combination [is] mixed methods research (MM) when it satisfies

1. at least one qualitative method (QUAL) and one quantitative method (QUAN) are combined;

2. each method is used rigorously; and

3. the data collections, and/or data analyses, and/or results are integrated”

Ensuring rigor and integration

Grounded in theory of change AND relevant social / behavioral / health theories

Sampling facilitates generalizability and inclusion of information-rich yet representative participants

Sample size allows you to reach statistical significance and / or thematic saturation

High quality implementation of complementary tools

Integrated analysis designed a priori → triangulation to answer key questions of what impacts, for whom, how and why?
Sampling for Qualitative Inquiry

Participants are **purposively selected** because they have specific characteristics / experiences

- Increase representativeness by using quant data to inform typologies of participants included

**How many?**

- Goal is to reach **saturation** → critical point when data no longer contributes new themes or codes
  - **Small numbers** because mining deeply
  - **Total determined theoretically and practically**
What are you sampling for?

Theory and Goals contribute to deciding who to sample – often may use a combination of the following

- **Maximum Variation / Heterogenous?**
  - Seeking the gamut of experiences / information – men, women, across life stages, multiple ethnicities, livelihoods
  - Example: Formative research to develop a survey that will be applied to the general population

- **Homogenous Selection?**
  - Similar characteristics for a very specific type of question
  - Pregnant, urban women younger than 18 who are not in school

- **Typical Case?**
  - Ordinary, average – people who do not fall to the extremes
  - Typical household in community in terms of wealth, employment, family size

- **Critical Case?**
  - Lots of experience or information on a given topic / issue
  - Eye-witness account – survivor of hemorrhage, women who received illegal abortions
Most important tenet ➔ The facilitator is the instrument

Facilitators must:

- Establish and maintain rapport
- Actively listen, effectively probe and observe to obtain rich data
- Ask open-ended data-generating questions appropriate to the respondent(s) and the situation
- Be flexible and follow the lead of the participant(s)
- Facilitates discussion and debate, not consensus
- Appropriate and effectively design and integrate participatory activities when needed

Well trained, experienced interviewers / facilitators are critical for producing high quality data

Same applies for analysis of qualitative data
Critical Questions to Ask when Planning MMA

When will MM be used?

Which design -- sequential or concurrent?

Single or multilevel? Cross-sectional or longitudinal?

Equal weight, or will one methodology be dominant?

What are my available capacities / resources?
Capacity and Resource Considerations for Integration

Multi-disciplinary evaluation team

Planning starts at program conception
  ◦ Triangulation Plan
  ◦ Analysis plan with time / resources for field follow up
  ◦ Document plan in detail – sample, data collection, analysis plan

Data management and analysis is interactive and iterative
Recap of Mixed Methods

Integration allows for a greater array of questions to be addressed to inform understanding process of impact, sustainability and scale up.

Triangulation of complementary methods verifies and increases utility of different data sources and findings.

Compensates for weaknesses of evaluation strategy due to resource / capacity constraints.

Mixed methods require us to stretch ourselves beyond our comfort zones – but the payoffs in terms of program learning and impacts are worth it.
How do you assess change in program partners to inform potential sustainability and scale up?
“OM provides a method for [partners] to plan for and assess the capacities that they are helping to [strengthen] in the people, groups, and organizations who will ultimately be responsible for improving the well-being of their communities”

“OM focuses on changes in behaviour and relationships of intermediate local actors {boundary partners} who are supported by the programme and whose actions are believed to contribute towards changes at the level of final beneficiaries”

Great resources on outcome mapping can be found at http://www.outcomemapping.ca/
**Outcome Mapping**

- Boundary Partners contribute to development of project vision, mission and PIP
- Boundary Partners identify and set their own outcomes → **outcome challenges**
- Boundary partners identify **progress markers** that will lead to outcome challenges
- Boundary Partners develop **strategy maps** and **organizational frameworks** to support achievement of pro
- Boundary Partners conduct routine and systematic **self-assessment** to document progress using qualitative tools
Additional Useful Resources on Mixed Methods

