SCELC Research Day

Mar 12th, 10:00 AM - 11:00 AM

Qualitative Methods and Mixed Methods

Emily Namey

FHI 360

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Mixed Methods Research Design

Qualitative Methods

SCELC RESEARCH DAY
MARCH 2019

Emily Namey
## What’s on deck...

<table>
<thead>
<tr>
<th>Intro to Qual Methods</th>
<th>What are they?</th>
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<td>When/why do we use them?</td>
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<table>
<thead>
<tr>
<th>The Traditional Methods</th>
<th>Individual interviews</th>
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<td>Focus groups</td>
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<td>Participant observation</td>
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<th>Add-ons and Innovations</th>
<th>Projective techniques</th>
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<td>Design-centered activities</td>
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<thead>
<tr>
<th>Practical Considerations for Design</th>
<th>Sample size</th>
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<tr>
<td></td>
<td>Cost</td>
</tr>
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<td></td>
<td>Mode of data collection</td>
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</table>
Qualitative methods... anyone, anyone?

- Who has used?
- How would you define?
  - What are the distinguishing features?
What is qualitative research?

Qualitative researchers are interested in understanding the meaning people have constructed, that is, how people make sense of their world and the experiences they have in the world. (Merriam, 2009, p. 13)

Qualitative research is research using methods such as participant observation or case studies which result in a narrative, descriptive account of a setting or practice. Sociologists using these methods typically reject positivism and adopt a form of interpretive sociology. (Parkinson & Drislane, 2011)
What is qualitative research?

Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible. These practices transform the world into a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret, phenomena according to them. (Denzin & Lincoln, 2011, p. 3)
What is qualitative research?

“Qualitative research involves any research that uses data that do not indicate ordinal values.” (Nkwi, Nyamongo & Ryan 2001)
Strengths of qualitative research

- Enhanced flexibility
- Can probe into responses as needed and get explanations
- Can get information not anticipated by researcher
- Can capture complex information/processes
- Generates data in the vernacular
- In general, obtains better validity than more structured inquiry

Note: “Ethnography”, “Formative Research” and “Rapid Assessment” not synonymous with qualitative research
Use qualitative research when...

Little/less is known about topic/population

- Fixed-response categories
- Systematic Elicitation (e.g., free lists, pile sorts)
- Topics established – questions scripted
- Topics established – questions unscripted
- Topics not established
Use qualitative research to...

- identify or explore things
- establish the range of responses/ideas/etc.
- examine processes
- understand complex experiences/beliefs/behaviors
- generate in-depth explanations and/or understand causation
- engage and involve
Use qualitative research in a mixed methods design to...

- Generate a broad understanding of the issue(s) before trying to quantify their frequency or distribution
  - Before developing a quant instrument, to understand the appropriate topics and response options
  - To generate vignettes, case studies, examples for use in quant

- Better understand causality, once statistical associations are known
  - After quant, to understand the how and why of results/findings
  - To generate explanations of findings in participants’ own words
Don’t use qualitative research alone if...

- You need to measure things/variation
- You need large sample sizes
- Statistical methods are your primary form of analysis
  - (e.g., do you need $p$ values?)
- Your audience is numerically inclined
In-Depth Interviews

(IDIs)
IDIs: What are they?

- 1 on 1 discussion (typically)
- Open-ended questions
  - Unscripted follow-up “probes” for depth, clarification, elaboration
- Conversation-like
- Relaxed rapport
- Usually audio-recorded

Participant is the expert!
Use IDIs if...

• you’re interested in personal narratives
• you have “key” informants
• the topic is sensitive
• response independence is important

IDIs are analytically ‘cleaner’ than focus groups.
What makes a good birth experience for women in the US?

Surveys identify some of the what – but not why

Qualitative methods needed: IDI or FG?
- Personal narratives
- Topic can be sensitive
- Response independence is important

- FG got at normative level – what women think they should think/say (cultural norms)
- IDI allowed direct expression of individual beliefs & priorities
Interviewing logistics

Where to interview

- quiet and private location (if possible)

When to interview

- scheduled (preferred) vs. spontaneous
- informal IDI may be part of participant observation

Length

- typically 1 hour
- prioritize questions to time allotted
Interview typology

- **Structured Instrument**
  - Specific/Narrow
  - General/Broad

- **Unscripted Conversation**
  - Specific/Narrow
  - General/Broad

- **Semi-structured**
  - e.g., cultural knowledge, social facts, common processes, taxonomies

- **Structured instrument**
  - e.g., personal experiences & perceptions, events, unique knowledge
Interview topic/scope (y-axis)

Depends on:

- Research objectives
- How much is already known

Generally, start broader then move to the specifics

- Within interview itself
- Within larger research context

The more broadly shared something is, the easier it is to investigate.
Interview structure (x-axis)

The less known about the topic, the less question structure possible

- But, structure greatly facilitates comparative analysis – across time, space and interviewers
- At the very least, establish interview TOPICS

If in doubt, err on the side of more structure

*If don’t even know topics, do more formative research*
BIRTH NARRATIVE
Why don’t you begin by simply telling me the story of your childbirth experience[s], highlighting three things that made it “good” and three things that made it “bad”.

POTENTIAL PROBES

Preparation
Did you feel prepared for the experience you had? How did that affect your feelings about the birth? Was there anything in particular that you did not feel prepared for? What impact, if any, do you think your level of preparedness had on whether or not you had a good birth? Is there anything you would suggest for expectant mothers to help them prepare?

Relationship with provider
How would you describe the relationship you had with the provider who delivered your baby? What effect do you think that relationship had on your experience?

Social support
How did the people around you contribute to your birth experience? (spouse/partner, nurses, doula, providers) What specifically did they say or do? How did having these people with you make you feel?

Mode of delivery
How did you feel about the way you delivered (e.g., vaginal, VBAC, planned C/S, unplanned C/S)? How did the mode of delivery affect your birth experience, in a good or bad way?

Control/Self-efficacy
How much control did you want in your labor and birth? Did you feel you experienced this level of control? Why/why not? What contributed to this? Can you define what “having control” or “being in control” means to you? What impact, if any, do you think being in control had on whether or not you had a good birth?
CONDOM USE
Let’s now talk about condoms. When you have sex with a woman, how is it decided to use or not use condoms? [If respondent does not mention, ask: who usually makes the decision? What criteria are used to make this decision?]

Which circumstances would change your mind about using or not using a condom?

In thinking about the different kinds of sexual partners that you mentioned earlier, explain how your condom use may be different with different types of partners.

COMMUNICATION
Thank you for your responses. Let’s now move to the next section of the interview and discuss what you talk about before having sex with a woman.

What do you usually talk about with your sexual partners before having sex?

How is the conversation different with different types of partners?

RELATIONSHIP TERMS
Thank you for your responses. We are now at the last section of the interview. In this section, I’m going to give you three different words related to relationships between men and women. I will then ask you what each word means to you and ask you to give examples.

In the context of relationships between men and women, what does the word “faithful” mean to you?
<table>
<thead>
<tr>
<th></th>
<th>Set-Up</th>
<th>Pre-Intimacy</th>
<th>Intimacy</th>
<th>Post Intimacy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Context</strong></td>
<td>□ When &amp; where meet?</td>
<td>□ Where were you?</td>
<td>□ Any discussion about condom use/previous sexual experiences?</td>
<td>□ Any discussion about condom use/previous sexual experiences and condom use this partner?</td>
</tr>
<tr>
<td></td>
<td>□ What else was going on at the time (e.g., social occasion, etc)?</td>
<td>□ Where did you go?</td>
<td>□ Any discussion about condom use/previous sexual experiences?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Who was around?</td>
<td>□ Was place familiar?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Behavior</strong></td>
<td>□ What did you do?</td>
<td>□ What happened?</td>
<td>□ What activities?</td>
<td>□ What did YOU do/ where go?</td>
</tr>
<tr>
<td></td>
<td>□ Was meeting planned?</td>
<td>□ Who made first move?</td>
<td>□ Petting, masturbation, oral</td>
<td>□ Where go?</td>
</tr>
<tr>
<td></td>
<td>□ Did you think you would have sex with him?</td>
<td>□ Was sex planned?</td>
<td>□ Condoms?</td>
<td></td>
</tr>
<tr>
<td><strong>Feelings</strong></td>
<td>□ What feeling (mood)?</td>
<td>□ What feeling (mood)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ What do you think he was feeling (mood)?</td>
<td>□ What do you think he was feeling (mood)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Who started?</td>
<td>□ Who started?</td>
<td>□ What role did alcohol or drugs play in your decision to have sex?</td>
<td>□ What role did alcohol/drugs play in your decision to use/not use condom?</td>
</tr>
<tr>
<td></td>
<td>□ What role did alcohol or drugs play in your decision to become more intimate?</td>
<td>□ What role did alcohol or drugs play in your decision to become more intimate?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Matrix approach allows for more natural flow (no need for explicit transition statements)...but harder to compare...
Effective Interviewing

- Be respectful and be the novice
- Know your research objectives
- Know your “spiel”
- Practice interviewing
  - Role-playing exercises, pilot interviews, informal practice sessions
- Practice using the equipment
  - Check batteries (have spares), microphone
  - Know how to use special features (don’t use VAR)
- **Know your interview guide/topics!!!**
  - Use an “intent guide”
### Interview Question

**WARM UP**

Describe for me your history of counseling on HIV prevention. This can be within the context of a clinical trial and through HIV prevention programs.

- How long?
- What study or studies or programs?
- What were the general characteristics of the population involved?
- What has been your general experience in your career as a HIV counselor?

### Rationale or Intent

Here we just want to know who this counselor is and what experience(s) she has had. Essentially, what knowledge and experiences is she drawing from when we ask her the subsequent questions.

The follow up probes are to be used if these points are not covered in her open response to Q1. I think the first two are self-explanatory. The third, about general characteristics of the population involved, we want to know whether she counseling women or men, if they were sex workers or general population, average income (low, middle, high) of participants, education level, etc. The final bullet is asking her to reflect on her general experience – has it been rewarding? Challenging? Has she seen lots of different responses to counseling, or some major trends? You don’t have to go into a lot of detail and probing here, but these are ideas of the types of information that we’re asking for.
Focus Groups

(FGs)
FGs - What are they?

A research method!

- Carefully planned discussion with a small group of people on a focused topic
- Group dynamics are used to stimulate conversation
  - Cognitive triggers
  - Sharing experiences
Use focus groups...

- If want a broad range of perspectives
- When studying social norms
- If interested in group dynamics
- If topic is a group process
- When evaluating a product/service/program
- When time and funds are limited
Don’t use focus groups...

- When topic is highly charged or controversial
- If the topic is sensitive or highly personal
- If interested in individual narratives
- If you need quantifiable results
Focus Group Example

- Comparable prevalence of urinary incontinence (UI) across ethnic groups
  - 70% of white compared to 16% Hispanic, 6% Black, and 5% Asian women with UI admitted to seeking care (Morrill, Lukacz, Lawrence, Nager, Contreras, & Luber 2007)

- Used FGs to compare norms around UI among different ethnic groups in the southern US
  - White, African American, Latina
FGs - Logistics

• **Length**
  • Approx. 2 to 2.5 hours
  • Approx. 12 questions

• **Staff**
  • Moderator - Facilitates discussion & manages group
  • Note-taker - Takes notes, runs technology, manages logistics
  • Both debrief after FG

• **Environment**
  • Consider seating, eye contact, food, privacy

• **Size**
  • Recommended ranges: 6 to 12 people
  • Typically aim for 8
FGs - Composition

✓ Participants usually do not know each other
  • Pre-existing social relationships can influence what people are willing to say
✓ Participants are generally similar
  • “Similarity” defined to some extent by the research
✓ Avoid power differences
✓ Key is creating comfortable environment
Participant Observation

(PO)
PO – What is it?

- **Free form observation technique**
  - Immersed in context
  - Includes observing and informal conversations
  - Distinguished from “direct observation”

- **Why observe?**
  - Researchers may not know the right questions to ask
  - What people say they did/do/will do is not always accurate
  - Physical context is often important determinant of behavior

- **Often used in early formative research**
- **Rarely used alone**
Participation continuum

Minimal Participation

Applied research

Traditional ethnography

Full Participation
When to Use Participant Observation

- When topics of inquiry are not established (i.e. exploratory)
- When validity of self-reported data is suspect
- Identify what goes unreported
  - Reporting biases
  - Limitations of “procedural memory”
- When physical context is critical to research objectives
- When **observable** behavior is an outcome of interest
PO example
(Koester & Hoffer 1994)

- Early 1990s needle sharing declined among drug users
  - HIV transmission persisted in this population

- Participant observation of heroin users
  - Confirmed needle sharing did not occur
  - Cross-contamination of instruments to cook & share heroin was observed (i.e., “indirect sharing”)
PO Example
(Page & Evans, 2003)

- State of FL survey finding that tobacco use by African American youth was relatively low.
- Used PO to investigate
  - Found that “Black & Milds,” a cigarillo with 5 to 12 times the nicotine of cigarettes, was the tobacco product of choice among youth
- Concluded that since users of these cigarillos “tend not to recognize them as tobacco and believe they contain no nicotine”
  - the self-reported survey data were probably truthful, though an inaccurate representation of tobacco use among African American youth
PO logistics

What to observe?
- Physical area, who’s there, what they are doing

Where to observe?
- Places where behavior of interest occurs
- Often public space or event, but privately owned spaces also used (need permission!)

When to observe?
- Consider temporal variations in topic of interest
- Capture temporal range of behavior/activity
  - Does it vary by: Time of day? Day of week? Season?
Taking field notes

- Begin each entry with the date, time, and place
- Leave space on the page for expanding your notes
- Use shorthand (key words/phrases) and/or recording device
- Expand raw notes ASAP (within 24 hours)
- Separate observations from interpretations!
Add-ons & Innovations
Projective Techniques
Projective techniques

“Indirect” methods used in qualitative research

- **Questions or activities that have no obvious answer**
- Since the answer is not obvious to the respondent, s/he is required to *project* a truthful answer
- Can circumvent politically correct or socially desirable answers to reveal deep motivations, beliefs, attitudes and values
  - emotional drivers of behavior lie below conscious awareness
Projective techniques

- Status
- Belonging
- Achievement
- Recognition
- Family Values
- Power
- Nurturing
- Time
- Love
- Control
- Fun
- Adventure
- Reinvention
- Curiosity
- Wish Fulfilment
Visual techniques

- Use of images to stimulate discourse
  - Can be participatory (participants generate images) or researcher-driven (researcher provides images)
  - Can be video, photographs, drawings
- Participants discuss images (individual or group)
- Typically analyze discourse (can directly analyze images but is highly interpretive)
http://www.qualitative-research.net/index.php/fqs/article/viewArticle/1296/2804#g1
Environmental Events - Guam
1940-2005

Typhoon
Supertyphoon
Moderate El Nino Year
Strong El Nino Year

7.8 Earthquake
Personification

- Associative technique
  - What do people associate with certain behaviors (or products, places, etc.)
  - Uncover stereotypes or preconceived notions associated with certain behaviors or people who enact certain behaviors

- Constructive technique
  - Build a story around each picture, what led to it and what may happen in future

- Picture sorting activity allows people to use visual markers as prompts
Personification
Structured IDI and FG activities

- Listing
  - Helpful for identifying range of items in a domain
  - Good starting point for an IDI/FG
  - After list, can get explanation/elaboration

- Categorizing
- Rating/Ranking
Design Thinking/HCD
HCD and Ideation

Human Centered Design is a multi-stage, interactive, and iterative process that prioritizes an individual’s lived experiences and seeks to identify solutions to address context-specific challenges.
<table>
<thead>
<tr>
<th>Traditional Qualitative SBR</th>
<th>Human-Centered Design Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Generate information / theories about behaviors to inform design or intervention goals</strong></td>
<td>Overall Objective</td>
</tr>
<tr>
<td>Immersion by researchers often “behind the scenes” to reduce participant “reactivity”</td>
<td>Proximity to Field</td>
</tr>
<tr>
<td>Audio-recordings and verbatim transcriptions preferred</td>
<td>Data Capture</td>
</tr>
<tr>
<td>Step-by-step “auditable” process, with emphasis on scientific rigor</td>
<td>Synthesis of Findings</td>
</tr>
<tr>
<td>Text to convey the content with dissemination in peer-reviewed journals</td>
<td>Outputs &amp; Dissemination</td>
</tr>
<tr>
<td><strong>Arrive at new solutions</strong> based immersive experience of end-user &amp; context</td>
<td>Immersion by multidisciplinary research team in the field, allowing for immediate feedback</td>
</tr>
<tr>
<td>Field notes and rich media assets preferred</td>
<td>Rapid and iterative review of data to generate creative insights</td>
</tr>
<tr>
<td>Rich media collateral and a toolkit of assets that facilitate empathetic ideation</td>
<td></td>
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Adapted from Tolley 2018
HCD and Ideation

THE DESIGN THINKING PROCESS

UNDERSTAND | OBSERVE | POV | IDEATE | PROTOTYPE | TEST | STORY TELLING | PILOT | BUSINESS MODEL

INSPIRATION | IDEATION | IMPLEMENTATION

Source: https://www.interaction-design.org/literature/article/design-thinking-a-quick-overview
Ideation

Idea generation
Role Play
Role Playing

- Uses personas and scenarios to direct participants to consider how a product or service would be received by people in different roles and situations to:
  - Explore an existing situation or product
  - Generate empathy by simulating an experience or situation
  - Verify concepts through trial and rapid, iterative prototyping

- SIMPLE + INEXPENSIVE
Role Playing

**Challenge Story**

You are Radhika, a young girl who has recently started dating. While you know about a number of methods, you aren’t sure which is the right one for you. Your boyfriend does not want to use condoms and suggests using emergency contraception instead. You are worried about side effects and decide to discuss this with a friend. She talks about a method she read about on the Internet, but you aren’t sure.

**Questions**

- Do you think my boyfriend will mind it?
- Who do you think could get it for me?
- Is it expensive? I don’t want to ask my parents for money.
- Do you think it will affect my health?
Journey Mapping
Journey Mapping

- Involves key stakeholders in an interactive, creative process to identify how an individual engages in a given *experience*.
  - Product, service, process, place

- Allows users an opportunity to determine key moments, including pain points, facilitators, and opportunities for improvement.

- Considering the arc of an individual’s experience provides more opportunities for innovation to improve the experience.
Journey Mapping
Future-building
Future building

- Imagine the headlines of tomorrow
  - Encourage people to get as “out there” as they can
  - Does not need to be limited to the specific topic area of interest

- To move beyond a mindset of only being able to “predict the future as a reflection of the past”
  - Stretches mindsets into a place that is beyond where previous experiences can build assumed narratives
  - Facilitates a rebound effect that allows participants to return to the task at hand with less focus on the limitations of current technologies
“A ROLLICKING COMEDY.”

WRITTEN, DIRECTED BY AND STARRING LAKE BELL

IN A WORLD...

SPEAK UP AND LET YOUR VOICE BE HEARD

NEW POLLUTION LEVELS ARE FOUND TO INCREASE INFERTILITY!

WHO LET THE DOG’S OUT! (TO MARS)

DOGS FINALLY JOIN THE FIRST HUMAN COLONY IN MARS. WOOF!

SWIPE RIGHT FOR BETTER GENETIC COMPATIBILITY.

ONLINE MATCHMAKING SITE OFFERS PREMIUM SERVICES TO LINK USERS TO COMPATIBLE MATCHES.
Take-aways

Surface

WHAT PEOPLE

Say
Think

Do
Use

Know
Feel
Dream

Deep

METHODS

Interviews

Observations

Generative
Sessions

KNOWLEDGE

Explicit

Observative

Tacit

Latent
Sample Size & Cost

CONSIDERATIONS & EVIDENCE
Sample size for qualitative research

Most commonly cited criterion is (theoretical) “saturation”

“The point at which no new information or themes are observed in the data.”

SATURATION depends on . . .

- Homogeneity/knowledge of sample
- Complexity & breadth of topic
- Degree of instrument structure
- Analytical objectives
- Analyst categorization style
What we know about saturation – IDIs

- Usually 10-12 in-depth interviews is enough (>80% of themes), if:
  - Topic is focused
  - Sample is relatively homogeneous
- As few as 6 individuals may be enough to get high-level themes (~70%)
- For heterogeneous groups and different objectives will require more . . .

Guest et al. 2006

⚠️ Audience may need more to be convinced!
What we know about saturation - FGs

- > 80% of all themes found within 3 focus groups
- > 90% of themes found within 4-6 focus groups
- 3 focus groups enough to identify all of the most prevalent themes (most frequent tercile)

Taking it a little further – Bootstrap samples

- **IDIs required:**
  - 8 to reach 80% saturation (CI 5-11)
  - 16 to reach 90% saturation (CI 11-26)

- **FGs required:**
  - 3 to reach 80% saturation (CI 2-4)
  - 5 to reach 90% saturation (CI 3-7)

IDIs or FGs?

Using data from the same study, we compared IDIs and FGs on:

- Ability to generate an exhaustive list of items (brainstorming task)
- Likelihood of generating sensitive themes/information
- Cost to conduct

http://dx.doi.org/10.1080/13645579.2017.1281601.

Q: *What are the most common health problems in the African American community in Durham?*

- Focus groups and individual interviews generated 75% (27 of 36) of the same items.
- 5 items unique to focus groups; 4 items unique to individual interviews.
- At event level, focus groups and individual interviews generated similar numbers of unique items.
- On a per-person basis, individual interviews generated a broader range of items.
New items generated per data collection event

Number of Data Collection Events

Unique Items per Event

FGs  IDIs
New items generated per participant by data collection event
Spontaneous mention of sensitive themes

Sensitive Theme

Information one would reasonably expect people to be reluctant to disclose to a stranger, such as in a data collection context. E.g., information that is highly personal, taboo, illegal, or socially stigmatized in nature.

- Total of 10 sensitive themes identified across FGs and IDIs
- No sensitive themes unique to, or more prevalent in, IDIs
- 2 themes — homosexuality and sexual abuse — only expressed in FGs
- 4 sensitive themes identified statistically more frequently in FGs than in IDIs (Fisher’s Exact Test; p-value < 0.05)
  - Addiction/substance abuse, Incarceration/criminal activity, Mental illness, Illicit drug use
Cost-effectiveness comparison – FGs & IDIs

Compares the cost-effectiveness of focus groups and individual interviews in reaching thematic saturation.

- Bootstrap simulation generated 10,000 random samples from each dataset (FG and IDI)
- Calculated the number of data collection events to reach 80% and 90% levels of thematic saturation
  - Computed the median and the 5th and 95th percentiles (non-parametric 90% CI)

Calculated the cost of data collection to reach saturation levels across several contexts.
Cost calculations

Costs from researcher’s perspective

\[ Co = [x (\text{pppts} \times I)] + [y (\text{DC} + T)], \]

where:

- \( Co \) = total cost
- \( x \) = number of events to saturation
- \( \text{pppts} \) = number of participants per event
- \( I \) = participant incentive cost
- \( y \) = number of hours to reach saturation
- \( \text{DC} \) = moderator’s hourly rate
- \( T \) = hourly rate for transcription
Comparison of number of data collection events, time, and costs to reach 80% saturation, based on distribution of bootstrap samples

<table>
<thead>
<tr>
<th></th>
<th>Type of data collection</th>
<th># Events to saturation</th>
<th># Hours</th>
<th>Total cost to saturation</th>
<th>Time diff. (hrs)</th>
<th>% Time diff.</th>
<th>Cost diff.</th>
<th>% Cost diff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower [5th]</td>
<td>IDIs</td>
<td>5</td>
<td>3.74</td>
<td>$929</td>
<td>0.28</td>
<td>8.09%</td>
<td>-$524</td>
<td>-36.05%</td>
</tr>
<tr>
<td></td>
<td>FGs</td>
<td>2</td>
<td>3.46</td>
<td>$1,453</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>IDIs</td>
<td>8</td>
<td>5.64</td>
<td>$1,420</td>
<td>0.20</td>
<td>3.68%</td>
<td>-$819</td>
<td>-36.57%</td>
</tr>
<tr>
<td></td>
<td>FGs</td>
<td>3</td>
<td>5.44</td>
<td>$2,238</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper [95th]</td>
<td>IDIs</td>
<td>11</td>
<td>8.55</td>
<td>$2,107</td>
<td>0.88</td>
<td>11.47%</td>
<td>-$975</td>
<td>-31.64%</td>
</tr>
<tr>
<td></td>
<td>FGs</td>
<td>4</td>
<td>7.67</td>
<td>$3,082</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Comparison of number of data collection events, times, and costs to reach 90% saturation, based on distribution of bootstrap samples

<table>
<thead>
<tr>
<th>Type of data collection</th>
<th># Events to saturation</th>
<th># Hours</th>
<th>Total cost to saturation</th>
<th>Time difference (hrs)</th>
<th>% Time difference</th>
<th>Cost difference</th>
<th>% Cost difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower</td>
<td>IDIs</td>
<td>11</td>
<td>7.85</td>
<td>$1,971</td>
<td>1.95</td>
<td>33.07%</td>
<td>-$376</td>
</tr>
<tr>
<td>[5th]</td>
<td>FGs</td>
<td>3</td>
<td>5.90</td>
<td>$2,346</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>IDIs</td>
<td>16</td>
<td>12.09</td>
<td>$2,998</td>
<td>2.97</td>
<td>32.57%</td>
<td>-$746</td>
</tr>
<tr>
<td></td>
<td>FGs</td>
<td>5</td>
<td>9.12</td>
<td>$3,743</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper</td>
<td>IDIs</td>
<td>26</td>
<td>19.09</td>
<td>$4,763</td>
<td>5.49</td>
<td>40.40%</td>
<td>-$673</td>
</tr>
<tr>
<td>[95th]</td>
<td>FGs</td>
<td>7</td>
<td>13.60</td>
<td>$5,435</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Effects of independently varying input values at 80% saturation

- Ppts = 6
- Ppts = 12
- I = $0
- I = $100
- DC = $25/hr
- DC = $300/hr
- T = $0
- T = double

FG (Blue) vs. IDI (Yellow)

$0 to $4,000 range.
Effects of independently varying input values at 90% saturation

- Ppts = 6
- Ppts = 12
- I = $0
- I = $100
- DC = $25/hr
- DC = $300/hr
- T = $0
- T = double

FG
IDI
Mixing up the mode

REMOTE QUALITATIVE DATA COLLECTION
## Summary of Modifications

<table>
<thead>
<tr>
<th>Medium</th>
<th>Place</th>
<th>Time</th>
<th>Non-verbal cues</th>
<th>Probing</th>
<th>FG appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face to face</td>
<td>Same</td>
<td>Same</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Telephone</td>
<td>Different</td>
<td>Same</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Email</td>
<td>Different</td>
<td>Different</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Online/IM</td>
<td>Different</td>
<td>Same</td>
<td>Some</td>
<td>Yes</td>
<td>Some</td>
</tr>
</tbody>
</table>

Other considerations: Recording/transcription, cost, distractions, access, etc. (Silverman, ND)
Experimenting with mode of data collection

Eight study arms by data collection mode and method

<table>
<thead>
<tr>
<th>Data Collection Mode</th>
<th>Mode of Communication</th>
<th>Timing</th>
<th>Data Collection Method (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-person (control)</td>
<td>Verbal/visual</td>
<td>Synchronous</td>
<td>12</td>
</tr>
<tr>
<td>Online: Video-based</td>
<td>Verbal/visual</td>
<td>Synchronous</td>
<td>12</td>
</tr>
<tr>
<td>Online: Chat-based</td>
<td>Text/typing</td>
<td>Synchronous</td>
<td>12</td>
</tr>
<tr>
<td>Online: Email/message board</td>
<td>Text/typing</td>
<td>Asynchronous</td>
<td>12</td>
</tr>
<tr>
<td>Total data collection events</td>
<td></td>
<td></td>
<td>48</td>
</tr>
</tbody>
</table>

- Compared thematic content (number of unique themes per dataset)
- Cost to conduct
## Thematic content by mode of data collection

<table>
<thead>
<tr>
<th></th>
<th>Individual Interviews</th>
<th>Focus Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In-person</td>
<td>Online Video</td>
</tr>
<tr>
<td>Number unique codes/dataset</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>77</td>
<td>79</td>
</tr>
<tr>
<td>(% of total codes)</td>
<td>(91)</td>
<td>(93)</td>
</tr>
<tr>
<td>ANOVA F Test (p-value)</td>
<td>( F = 1.86 ) (p=0.15)</td>
<td>( F = 1.04 ) (p=0.40)</td>
</tr>
</tbody>
</table>
## Data collection cost inputs

<table>
<thead>
<tr>
<th>Cost inputs</th>
<th>In-person</th>
<th>Online Video</th>
<th>Online Chat</th>
<th>Online Email/Posts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant incentives</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Participant refreshments</td>
<td>X</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Scheduling time</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Interviewer/moderator time</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Assistant time</td>
<td>X</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Online hosting platform fee</td>
<td>--</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Transcription</td>
<td>X</td>
<td>X</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Transcript formatting</td>
<td>--</td>
<td>--</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Travel*</td>
<td>X</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Travel time</td>
<td>X</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

*X = applies for FGs only*

*Based on travel costs estimated in Rupert et al. (2017)*
## Cost of data collection by mode

<table>
<thead>
<tr>
<th></th>
<th>Individual Interviews</th>
<th>Focus Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In-person</td>
<td>Online Video</td>
</tr>
<tr>
<td>Average cost/event</td>
<td>$245</td>
<td>$351</td>
</tr>
<tr>
<td>with travel</td>
<td>$445</td>
<td>--</td>
</tr>
</tbody>
</table>

Take-aways

- 12 IDIs or 3 FGs per sub-group should uncover 80% of themes (including all of the most common)
- IDIs and FGs can be used to productively elicit lists; IDIs may be more productive per person (more efficient, lower cost)
- FGs can encourage sharing of sensitive/personal information if the group dynamics are conducive
- FGs don’t save as much $$ as people tend to think
  - More expensive, unless you are not providing participant incentives
- Online approaches are more cost efficient at uncovering themes
  - Online data are “thinner”, may lose context/examples with low word count
Questions & Open Discussion
Thank You
Demo(ralizing) IDI

https://youtu.be/U4UKwd0KExc
What could be improved?

- Intro/spiel
- Rapport
- Time for questions/purpose
- Structured/demog Qs
- Yes/No Qs
- Leading
- Talking, talking, talking
- Probing (lack thereof)
- Inattention/distraction
- Timing
- Eye contact
- Checking time
- Failure to listen
- ....?
Demo(nstrably better) IDI

https://youtu.be/eNMTJTrnrTQQ