How to Conduct Qualitative Analysis

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Agenda

- Overview of qualitative analysis

- Steps to conduct analysis

- General guidelines for reporting your findings

- Questions

- Resources

Overview of qualitative analysis

- Tool to answer research questions by finding patterns in qualitative data

- Qualitative data come from a range of sources such as:
    - Observations
    - Interviews
    - Focus groups
    - Open-ended responses
    - Curricular materials

- Used to:
    - Understand details and nuance of how programs were implemented
    - Understand why program was (not) able to meet target outcomes or goals
   - Understand the viewpoints and experiences of those involved

Metaphor that represents the process of qualitative analysis

Steps to analyze qualitative data

1. Refine and focus on research questions

2. Get data ready to be coded → 3. Develop a coding system

4. Code data → 5. Group and regroup coded data thematically

6. Determine findings from coded data → 7. Report findings
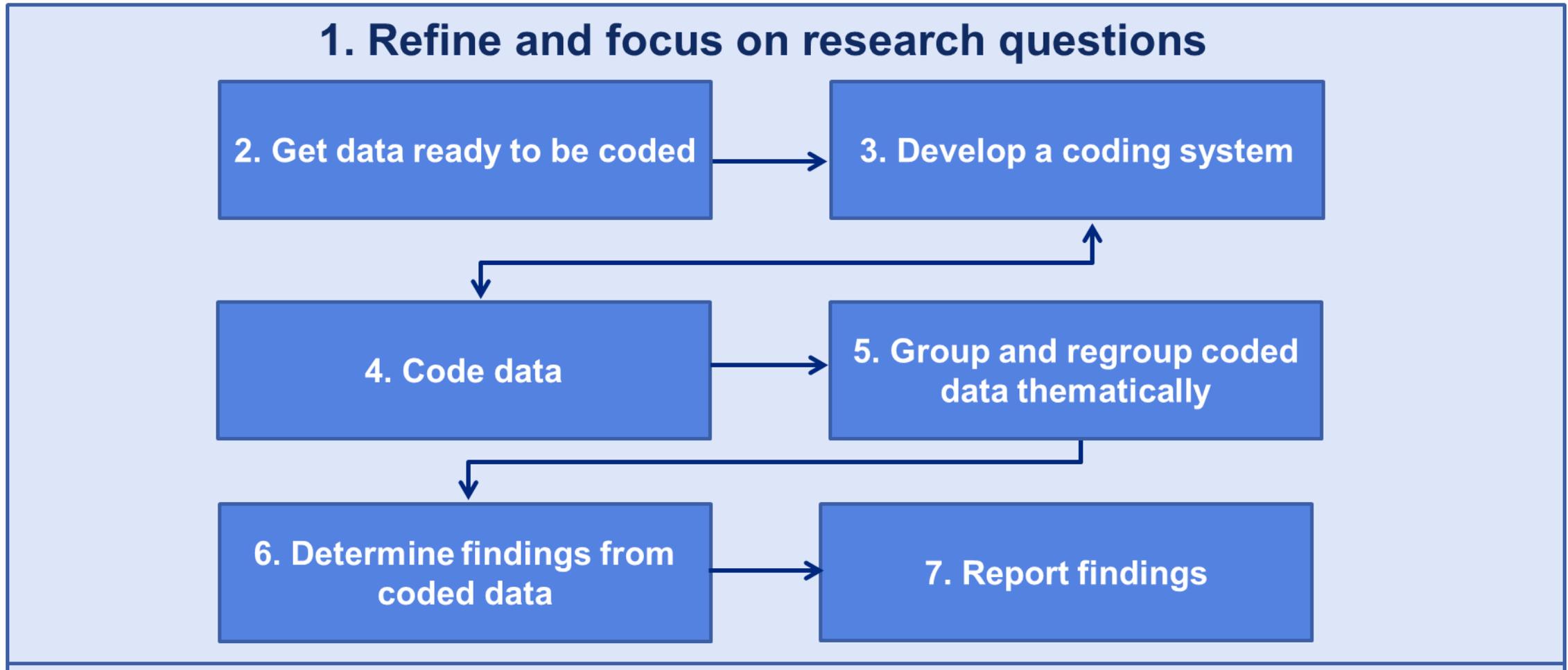
Example study

Research questions:

- What were key challenges the program team faced when implementing the curriculum?
- What curricular or implementation modifications were made?
  - Did these modifications mitigate or address the implementation challenges?

Data sources

- Focus groups with participants (students at partner organizations)
- Interviews with program team (facilitators)

1. Refine and focus on the research questions

- Review initial research questions
- Refine your research questions (if needed)
- Use your research questions to guide your analysis and reporting
    - Make sure you know your research questions inside and out
    - Continually refer back to your research questions while conducting analyses

2. Get data ready to be coded

Take your data and create clean data files (e.g., transcripts, detailed notes) that can be coded

- Raw data are difficult to analyze
- The person who collected the data is the best person to clean data files
  - Recommend creating files close to when data were collected
- Name prepared data files in systematic way

Example 2.1: Prepare data files

What were the key challenges the program team faced when implementing the curriculum?	
Raw notes from facilitator interview	**Clean data**
Sometimes the discussion questions are too babyish for the students. Although it may just be content too young cuz the question vocab is too hard sometimes for them. Like "Why do you show affection to someone?" The kids don't know the word "affection", but they think it's silly to explain why you give someone a hug.	Sometimes the discussion questions are too babyish for the students. Although it may just be the content of the questions is too young because the question vocabulary is sometimes too hard for them. Like "Why do you show affection to someone?" The kids don't know the word "affection", but they think it's silly to explain why you give someone a hug.

Example 2.2: Prepare data file names

BoydCharter_Facilitator_Interview_2019-11(Nov)_MidProgram.docx

Example template of a file name:

SiteName_RespondentType_DataSource_Date_(Whether data collected pre-, mid-, or post-program).docx

3. Get data ready to be coded, continued

Take your data and create clean data files (e.g., transcripts, detailed notes) that can be coded

- Raw data are difficult to analyze
- The person who collected the data is the best person to clean data files
  - Recommend creating files close to when data were collected
- Name prepared data files in systematic way

Add these prepared data files into a database

- Recommend creating database using a qualitative software program
- Only include data sources that will answer the research questions

3. Develop a coding system

Coding system is a set of codes rooted in research questions
- A code is a concept or label used to assign meaning to the data
- Code data (apply codes to data) to group similar data together

Develop codes using two methods
1. Codes that are derived from prior research, focus of the research question, OPA core themes
   - ✓ Can generate codes through a brainstorming session with project director, frontline staff, and evaluator
2. Codes derived as you go through the data
   - ✓ Evaluator (and coders) develop codes as they read through the data
   - ✓ Keep track of when you create new codes to apply them to already-coded data

The coding system should include codes organized by research question and a definition of each code

Codes are very detailed and specific

Example codes:
- Difficulties engaging participants
- Low attendance

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Example 3: Coding system

RQ1: What were key challenges the program team faced when implementing the curriculum?		
Codes	**Definition**	**When created?**
Scheduling and timing	Issues scheduling or issues with the timing of the sessions or program	Prior to coding
Unresponsive participants	Participants not responsive to the curriculum, lessons, etc.	Prior to coding
Vocabulary too challenging	Vocabulary is too difficult for participants to understand	1/15/2020
Issues with literacy/ texts	Participants not interested in curriculum that requires reading and writing. Participants don't want to engage with long text passages.	1/22/2020

4. Code data

If you will have multiple coders, train coders on the research questions, how to use the software, the coding system

- Benefit of having multiple coders – able to assess reliability

Do a quick read of data to get a full picture of topics covered

To code, read data carefully and assign codes as you go

- Assign codes that accurately represent each section of the data
- Should use multiple codes on the section of data, as needed
  - The same information can be used to answer multiple research questions

While coding, keep the research questions in mind

Example 4: Coding data

Codes

Scheduling and timing

Unresponsive participants

Disruptions to sessions

Late arrivals

Early departures

Curriculum not appropriate for age

Curriculum not culturally or linguistically appropriate

Vocabulary too challenging

Issues with texts/literacy

Data from facilitator interview (Woodrow site)

Some of the kids didn't want to read or be read to, but all the lessons involve reading. Everything is reading. Or writing. Reading or writing. They like the discussion but not the reading or writing. They really like the discussion when the questions are right. Sometimes the discussion questions are too babyish for them. Although it may be the content of the questions is too young because the question vocabulary is sometimes too hard. Like "Why do you show affection to someone?" The kids don't know the word "affection", but they think it's silly to explain why you give someone a hug.

Remember that the same portions of data can have multiple codes applied to them.

5. Group and regroup data

After coding, you may need to group the data from related codes together

- Codes may be too specific and more meaningful when they are grouped by theme
- Prior to grouping coded data, read the data in each code to ensure they are related to data in the other, related codes

May need group coded data once, twice, or more

Example 5: Grouping similar codes

- Curriculum not appropriate for age
- Curriculum not culturally/linguistically appropriate
- Vocabulary too challenging
- Issues with literacy/texts
- Troublesome examples in curriculum
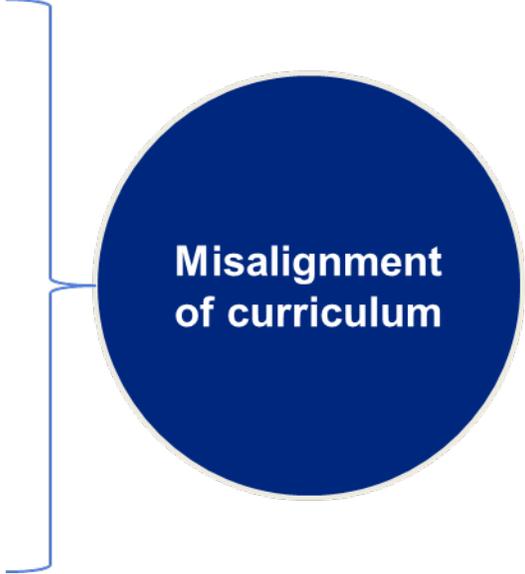
Misalignment of curriculum

6. Determine findings from coded data

Developing key findings is necessary to meaningfully answer the research questions

To develop findings you might consider doing a combination of the following:

- Examine the extent to which codes affect a large number of facilitators, sites, participants
  - Evaluators determine what a "large number" is
- Consider if there are codes that are particularly influential or important

6. Determine findings from coded data: What is a finding?

Determine findings by choosing the codes with data that best answer the research questions

- Evaluators have to define how they will determine what findings to report (decision rules)
- It is critical to document how you will determine what are findings and systematically apply them

You will create the process for determining findings <u>after </u>coding

Note: The process of determining findings requires multiple readings of coded data

Example 6: Developing findings

Research question 1: What were key challenges the program team faced when implementing the curriculum?			
Codes	No. of respondents (of 5)	No. of cohorts affected (of 10)	No. of students affected (of 80)	Substantive reasons
Scheduling and timing	1	1	5	While critical to coordinate to implement the curriculum, issues did not affect implementation
Unresponsive participants	3	5	60	Participant engagement in lessons (discussions, activities) is part of the program model
Disruptions to sessions	3	4	45	Impediment to implementation
Late arrivals	0	0	0	Developers stated participants must be part of the beginning of each session
Early departures	1	1	10	The program model states students should receive all the content, but students made up the content
Curriculum misalignment	2	2	30	Curriculum must be aligned to target population

Example 6: Developing findings

Research question 1: What were key challenges the program team faced when implementing the curriculum?			
Codes	**No. of students affected (of 80)**	**Substantive reasons**	**Key finding?**
Scheduling and timing	5	While critical to coordinate to implement the curriculum, issues did not affect implementation	🛑
Unresponsive participants	60	Participant engagement in lessons (discussions, activities) is part of the program model	🙂
Disruptions to sessions	45	Impediment to implementation	🙂
Late arrivals	0	Developers stated participants must be part of the beginning of each session	🛑
Early departures	10	Program model states students should receive all content, but students made up what they missed	🛑
Curriculum misalignment	30	Curriculum must be aligned to target population	🙂

7. Report findings

Answer your research questions by describing the patterns you found from coded data

Clearly state the significance of findings

- Should be able to respond to "why does this matter?"

Use language that accurately reflects the methods used

Example 7.1: Causal language

The program did not positively affect participants' reduction strategies for risky behavior because they struggled to understand the curriculum's difficult vocabulary

Example 7.1: Appropriate language for qualitative findings
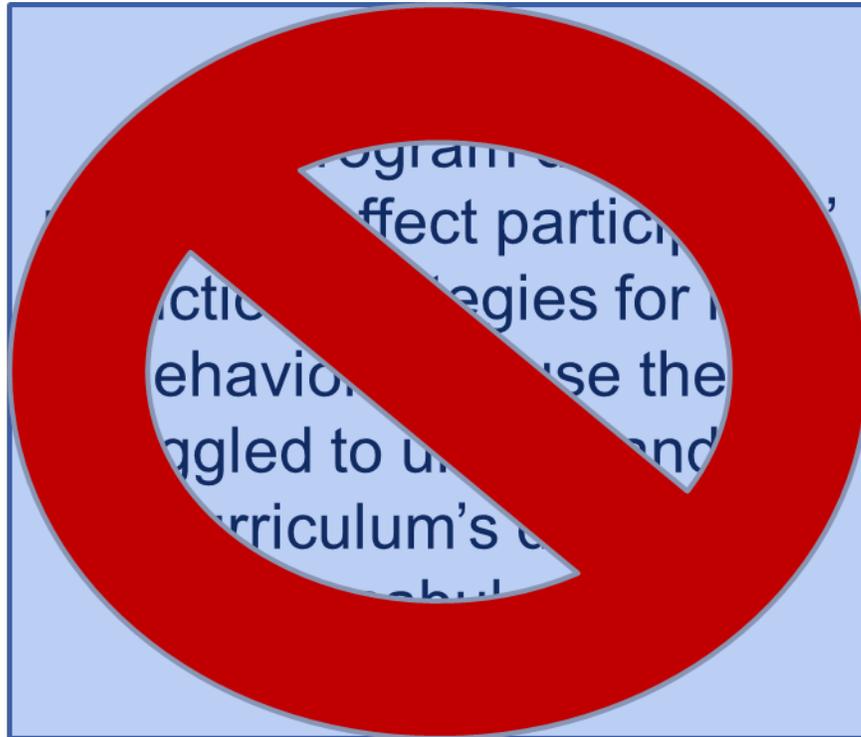
Participants reported they did not understand reduction strategies for risky behavior because they struggled to understand the curriculum's difficult vocabulary

7. Report findings

Answer your research questions by describing the patterns you found from coded data

Clearly state the significance of findings

- Should be able to respond to "why does this matter?"

Use language that accurately reflects the methods used

Play to strengths of qualitative data to help audience better understand or connect to findings

- Use illustrative quotes or examples; background information and context; sample writings, drawings, images

Example 7.2: Findings write-up

A key challenge the program team faced when implementing the curriculum was the misalignment between aspects of the curriculum and students' needs.

One type of curriculum misalignment was that the language was too advanced for students. Two of the five facilitators stated that they spent at least 10 minutes every hour-long session going over complex vocabulary—such as "brusque" and "anachronistic"—that were only tangentially related to the content. The time spent teaching definitions reduced the time for mentorship activities that students reported were most valuable because they could connect the dense content to their own experiences. As one student reported, "The best part is talking in [our mentorship] group. That's when I'm like *Oh that kind of convo happened to my friends and me, too.*"

Facilitators addressed this challenge by…

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Questions

Questions

Readings on qualitative analysis

Miles, M. B., Huberman, A. M., Saldaña, J. (1994). *Qualitative data analysis: An expanded sourcebook*.

National Institute for Health. (2018). *Qualitative methods in implementation science*.

Patton, M. Q. (2002). Two decades of developments in qualitative inquiry: A personal, experiential perspective. *Qualitative Social Work.*

U.S. Department of Health and Human Services. (2016). *Qualitative research methods in program evaluation: Resources for federal staff*.

Examples of qualitative analysis programs

- Atlas.ti
- Dedoose
- NVivo
- Transana