Qualitative coding: from low-tech to high-tech options

MERL Tech 2017
Agenda

1. What is content analysis?
2. The coding process
3. Low and high tech options
What is content analysis?

“any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings” (Patton, 2002, p.453).
What is content analysis?

“A research method that uses a set of procedures to make valid inferences from text” (Weber, 1990)

1. Consider what is known about a topic
2. Look for evidence of what you know in the text you’re analyzing
3. Use logic
Coding process

1. Develop codes and a codebook
2. Decide on your sampling plan
3. Code your data
4. Go back and do it again!
5. Test for reliability
1. Develop the codes and codebook

What do you know (or what is known)?

For example:
- Literature about the subject you are studying
- Research questions you want to answer
- Purpose of the content analysis
- The program or workshop learning objectives

What do you notice as you go through the content?
2. Sampling

Considerations – time, cost, effort

Two sampling methods:
• Systematic random sampling
• Quota sampling
What is your unit of analysis?

- Single word
- Theme
- Sentence or paragraph
- Item (entire article, image, book, radio program)

I: Ok, so, just a couple questions, first off, when were you enrolled in the peer mentor class?
P: It was my freshman year, so it would be, it would’ve been Fall 2013.
I: Ok, good, so you’re a sophomore this year?
P: Um, I’m a second year junior.
I: Perfect. As far as just a general question, in regards to your overall peer mentor course experience, how did you feel about the class itself?
P: I liked it. There’s a lot of information that was really good, but there was also information that we probably could have bypassed. I guess one thing was when we went over a 4-year plan and that has I guess really helped me now because I go back and I can update my four-year plan as I go on.
## Code examples

### Media professional standards

<table>
<thead>
<tr>
<th>Code</th>
<th>Sub-codes (0=disagree, 1=agree)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Lead/intro of story is clear and reflects the story’s content and story. It follows a logical sequence (beginning, middle, end) or engaging story arc</td>
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<td>2. Story sufficiently answers: who, what, where, when, why and how?</td>
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<td>3. Story features voices of the affected communities and most relevant actors (there are no gaps in the story)</td>
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<td>4. Story properly uses statistics, graphs and/or charts - Quotations or clips are used when needed</td>
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### Topics covered by media

**Politics and government:**

1. Women in political power and decision-making
2. Women electoral candidates
3. Peace, negotiations, treaties
4. Other domestic politics, government, etc.
5. Global partnerships
6. Foreign/international politics, UN, peacekeeping
7. National defence, military spending, internal security, etc.
8. Other stories on politics (specify in ‘comments’)
4. Test for reliability

Reliability - The degree to which the coding produces stable and consistent results

Challenges:

• Unit of analysis is large (e.g. whole TV program versus words)
• Coding of themes and concepts (e.g. “impartiality”)
• Non-verbal items (pictures, sounds, gestures)
Visualization

Check out Stephanie Evergreen’s blog and download her qualitative chart chooser 2.0

Stephanieevergreen.com/blog
Word Trees

Source: Created with Many Eyes (www-958.ibm.com).
Bubble charts
### Correlation maps

<table>
<thead>
<tr>
<th>Codes</th>
<th>Reading by Primary Caretaker</th>
<th>Duration</th>
<th>Frequency</th>
<th>Bedtime Routine</th>
<th>Morning Routine</th>
<th>Other Routine</th>
<th>Marvelous Moments</th>
<th>Reading by Others</th>
<th>Pre-Writing Activities</th>
<th>Letter Recognition</th>
<th>Parent - Child Talking</th>
<th>School Prep Beliefs</th>
<th>Great Quotes</th>
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</table>
# Low-tech to high-tech options

<table>
<thead>
<tr>
<th>Tool</th>
<th>When to use</th>
<th>Capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper &amp; pen</td>
<td>Few data sources and simple coding scheme; individual analysis; low tech literacy</td>
<td>Combine multiple data sources in your analysis</td>
</tr>
<tr>
<td>Excel</td>
<td>Few data sources; familiarity with excel</td>
<td>Sorting and filtering; comparison of codes; basic analysis and visualization</td>
</tr>
<tr>
<td>Computer Assisted Qualitative Coding (CAQC) software</td>
<td>Multiple coders; near-real time collaboration; multiple or varied data sources and high volume; advanced analysis; internet connection</td>
<td>Compare multiple data sources; advanced data visualization options; audio/video content; advanced analysis; inter-rater reliability</td>
</tr>
</tbody>
</table>
1. Review the program’s (abbreviated) theory of change, the purpose of the data collection, and the research questions

2. Develop categories to code based on what you know about the theory of change, the purpose of the data collection activity, and the research questions. Also, you can create categories as you go through the text that would help you answer the research questions. What types of changes, enablers, and barriers do you notice?

3. Report out on the categories that you created to answer these questions.

4. Is there agreement? Similarities/differences? Connection to theory of change...
Our coding
“Famita relayed positive change in her life as a result of engagement with the Leadership Development Plan, her mentor, and her Africa-based internship. The Leadership Development Plan gave Famita **more self-realization** of who she is and who she wants to become. She became **more determined and more courageous**. Her mentor also helped her **find direction** and **confidence** and helped Famita change her passion to skills. Finally, Famita internship **helped her understand when to be a follower, rather than a leader, and when to be an observer on certain issues.**

**Understanding of self/personal growth, Self-Confidence, Greater focus/direction/strategy**
Coding – using Excel

Download the excel template here:

Coding – using Dedoose