Assessment in Focus: Analyzing Data from Interviews & Focus Groups

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Learning outcomes

By the end of this program, participants will...

● Understand the strengths and challenges of qualitative data analysis;

● Learn and apply basic techniques for transcribing and coding text, audio, and visual data collected from interviews and focus groups;

● Be familiar with various approaches to qualitative data analysis, including analyzing sample data and qualitative analysis software.
Today’s plan

● Introduction
  o Situated in qualitative research

● Transcription
  o Audio transcription exercise

● Coding data
  o Define-your-codes exercise
  o Coding methods
  o Coding a transcript exercise
  o Coding tools

● Wrap up + questions
Quantitative + qualitative data

CUNY Students' Commute Time

- 0 hrs/wk
- 1-5 hrs/wk
- 6-10 hrs/wk
- 11-20 hrs/wk
- Over 20 hrs/wk

Hand-drawn diagram showing a commute that includes:
- Waking up at 6:30 am
- Bus ride lasting 20 minutes
- Train ride lasting 1 hour
Qualitative research

Strengths:
- Researcher is the key instrument
- Categories are constructed from data
- Holistic account
- Identifies variables that cannot be easily measured

Challenges:
- Time consuming to collect & analyze data
- Easy to collect lots of complex data
- Validation can be difficult
- Results not generalizable
Super brief qual research guide

- Start with a research goal
- Write your interview/focus group questions
- Draft your research plan
- Assess the resources available to you
- Identify your participant population
- Secure the required approvals
- Obtain any necessary equipment
- Incentives/compensation
- Recruit participants
- Collect data
- Post-collection wrap-up/acknowledgements
Super brief qual research guide

https://tinyurl.com/qualchecklist
Audience → analysis

Your research goal and audience will determine how much time you spend on data analysis.
What can qualitative data look like?
Lib
interview

add intro, intro

pop, cat, mars, surgery

2 2 2 2

library

surgery, conse.

pat. -> syn.

last citations

12 14)
Data precautions + useful paranoia

● Nontext files can be LARGE - consider an online storage solution like Dropbox or SpiderOak (and/or an external hard drive)

● Decide on a consistent file naming system FIRST and stick to it! (e.g. HC.S006.wma)

● Backup backup BACKUP (and backup some more)
What is transcription?

- To put into written form
- In qualitative research, the audio or video capture of an interview or focus group is rendered into written form
- This process changes the data, meaning can be lost or added
Transcription Exercise

1. Click once on file name of recording
2. Click play button to begin playing the recording
3. Set speed of play back according to your typing speed by sliding back or forwards
4. Use other buttons to advance backwards or forwards, or to stop playback or do step 5 -->
5. You can move back and forth quickly through the recording by sliding this marker back or forwards
Bad audio?

- Low recording level
- Background noise

Audacity is free!
http://audacity.sourceforge.net/
Transcription options

- Automatic transcription
- Pay for it
  - outsource
  - hire a grad student
- Do it yourself
- Take notes
- Code the audio/video

Consider: how much time and funding do you have?
ASSIGNMENTS: ED10 basic research on ed theorists (montessori, gardner, piaget, etc). “It's basically the old go to an encyclopedia and look it up, and if they dare use wikipedia I go ballistic.” In ED10 does not expect them to have in-depth knowledge of educational resources because they are just starting out. More important is learning the theory by watching in classrooms. ED12 is more online research. In ED40, a lot more online research but within the board of education and a few other sites. Looking at stats, more critical thinking and analysis, compare and contrast.

4:00ish - in ED12 each gets a topic “emotional disability” and they are researching, sourcing with at least three sources. Then, if it’s good, they choose two other topics to compare and contrast, so they rely on other student research in order to find information.

4:50:00 - if they tend to go shallow and use the first three hits they get on Google or the first three responses they get from the library databases then it turns out their work is not in-depth, very superficial for the comparison. These are the symptoms. I review the journals they give me and if one is not ok they redo it. In the upper level classes it gets turned into a paper after the compare contrast.

5:30:00 - upper classes are fully online. “So rather than have the students work independently without contact with me on a research project and then produce it and hand it in at the end, I much prefer to have them go step by step in terms of producing the work, having it checked, moving to the next level or depth.

6:00:00 - fieldwork, working with students in schools. Create weekly lesson plan, with a theme, three themes “North pole, animals, solids, liquids, gases and stones” and need to back up with research. Developmentally appropriate and accurate. “Can be googled to a degree.”

7:00:00 - New feature at library - Ask a librarian chat - incorporated into course. Interested to see how it impacts on student research - are the librarians pointing students to good research.

10:00:00 - expectations - start of semester on syllabus, details of general parameters (margins, fonts, etc).

10:43:00 - gives examples from prior semesters.

11:00:00 - research parameters - ED10, 12 tighter restrictions and looser at upper levels. Looking for specific data that allows him to check they did it. Bring it back in discussion, chart, table, written assignment.

12:20:00 - adapting: “When I started here at the college I was a traditional talk and chalk instructor, I would use powerpoints, I would use handouts, I’m not big on videos or DVDs simply because I find them very static and passive everyone watches and I prefer to get them involved. Breaking students up into groups is always a really good idea and they get to collaborate, but they can go off topic so quickly in groups, and if I break them up randomly there are students who did the reading, students who didn’t do the reading, students who have the book, students who don’t and I find it unequal. My second year here I went through the Sloan Consortium online training and I immediately began offering course in a hybrid model and they are asynchronous, and since then I’ve been doing more and more stuff online, ranging from simply emailing me your Word document to participating in a discussion board, to I produce podcasts, in a semester or so I am hoping I will have the students doing podcasts and posting those.

14:01:00 - Technology has expanded the range of what students can do “much much better.” It is a lot more time and work for me, and my students would be the first to say it is a lot more work for them but they think the effort really really well. When I would look at summative essays, from ED12 9 years ago asking the question “what have you learned” as opposed to now, I find the depth of their learning unbelievable. Really really is a pleasure.
Levels of transcription

• meaning/paraphrase
  “I like the library, it’s very helpful.”

• discourse (typical)
  “Um, you know like (laughing) it’s very cool, . . . and so convenient the librarians help me when I go there so I like that.”

• phrase (necessary for certain theories)
  Student1: “Um, you know like it’s very cool//
  Student2: ...and so convenient the librarians help me when I go there//
  Student1: so I like that.”
What is coding?

"A code is a specific label you assign to a category which in turn indicates a piece of data or particular form of data." (Layder 2013, pp. 129-159)

"Coding organizes the data into meaningful segments which can then be analyzed. . ." (Layder 2013, pp. 129-159)

Interpretive vs. locating meaning (Guest 2012, pp. 49-50)

Many ways of coding; our approach is geared toward practice and not theory or model building
Code Definition Exercise
<table>
<thead>
<tr>
<th>Code Name</th>
<th>Brief Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space</td>
<td>Any comments related to facilities and use of building, such as lockers, group study rooms, physical technology.</td>
</tr>
<tr>
<td>People/staff</td>
<td>For comments about librarians and other staff.</td>
</tr>
<tr>
<td>Collections</td>
<td>For references to online or book/physical resources used.</td>
</tr>
<tr>
<td>Services</td>
<td>For comments about ILL, agreements with other librarians, reference, teaching, and events.</td>
</tr>
<tr>
<td>Positive</td>
<td>For comments that are pleased. Use in tandem with other codes or on its own.</td>
</tr>
<tr>
<td>Negative</td>
<td>For critiques. Use in tandem with other codes, in addition to on its own.</td>
</tr>
</tbody>
</table>
## Code Definition Template

<table>
<thead>
<tr>
<th>Research</th>
<th>Speaker mentioning any information task related to an information need.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brief Definition</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Full Definition</strong></td>
<td>Research is broadly defined as information seeking, and can include any type of information investigation both inside and outside of an academic environment. It can include homework, buying plane tickets, navigating through an administrative process.</td>
</tr>
<tr>
<td><strong>When to Use</strong></td>
<td>When participants describe their information activities related to answering a question.</td>
</tr>
<tr>
<td><strong>When Not to Use</strong></td>
<td>Do not use it if the speech is hypothetical. Always look for concrete examples.</td>
</tr>
<tr>
<td><strong>Example</strong></td>
<td>For me it varies from professor to professor. For example I can say this term, I have two courses. The professor he demands that to actually do the homework from the textbook, only from the textbook.</td>
</tr>
</tbody>
</table>
Let’s take a quick break!
Where do codes come from?

- Codes emerge (techniques to be described)
- Iterative process
- Researcher has predetermined codes; confirmatory analysis (Guest 2012, p.39-40)
- Literature reviews
- Concept maps
- Pile sorts
Where do codes come from?

- Descriptive attributes of the data: gender, age, location, etc...
- Frequency counts (stop words, exclude moderator comments)
- Reading the text (interpretive/locating meaning)
- In vivo or indigenous coding (using interviewee words and concepts)
Where do codes come from?

- Metaphors, idioms, and analogies
- Transitions (note either end of the change)
- Linguistic connectors indicating a causal relationship
- Missing data/silence (when there is a good reason for a participant to talk about something and he/she does not)

Guest 2012, p. 66
Data ↔ Codes ↔ Themes

Data: The textual representation of a conversation, observation, or interaction.

Theme: Unit of meaning that is observed (noticed) in the data by a reader of the text.

Code: A textual description of the semantic boundaries of a theme or component of a theme.

Coding: The process by which a qualitative analysis links specific codes to a specific data segments.

Guest 2012, p. 50-51
A visual example
Intercoder agreement

Common methods:

- Subjective assessment
- Percentage agreement (80% is considered good)
- Cohen’s Kappa (.8 is or higher is great; rarely reported in LIS practitioners; loses meaning the smaller the sample)

\[ \kappa = \frac{Pr(a) - Pr(e)}{1 - Pr(e)}, \]

Guest 2012, p. 89-90
Coding Exercise
**Coding tools: Excel or Google Docs**

### Albarillo METRO Transcript in Excel

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Group</td>
<td>Line</td>
<td>Timestamp</td>
<td>Talk</td>
<td>Name</td>
<td>Gender</td>
<td>Age</td>
<td>Code</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>57 18:47.0 - 19:05.6</td>
<td>The question is to talk about your research here, and then compare it with school work and how you found information before.</td>
<td>Moderate</td>
<td>M</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>58 19:05.6 - 20:37.5</td>
<td>Okay, so I think the main differences between here and back home is access to resources, because here you can, everybody has Internet. It's not the case back home. At least In Brooklyn, we have a good public library system. It's not perfect, but it's useful. And you can access that, and you can access the Internet in the library even if you don't have a library at home. In Columbia, there's one public library in the entire city where I lived. Just one. And every school has a library. But they were limited, but those were only access to library school, and the one public library. And the one public library, it's very nice. It has a lot of things, it's very well kept. To contextualize, it's in a very bad area. So you don't want to go to the library, because you might get robbed. So, that was a factor there. We would go in school groups, so the school bus would drive us in, or a parent. But it was an event. It wasn't like I'm going to the library to find out information like you can here. Yeah, I think that's it.</td>
<td>Samantha</td>
<td>F</td>
<td>22</td>
<td>Crime</td>
<td>Public Lib</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td></td>
<td>Here research for homework, it depends. For me it varies from professor to professor. For example I can say this term, I have two courses. The professor he demands that to actually do the homework from the textbook, only from the textbook. So in such cases we don't need to do references, for example Googling or look up other books from here (the library). Because the only source is our textbook. But there are cases where we do look for different books, and do Google for finishing an assignment. The most scary part for me is here. I am always scared about the plagiarism, because back home I never had any idea, what is this. Because we were never taught about anything. Back home there is no issue about plagiarism, you can always go copy. You don't even need to give credit. But here you can get an F, you can be, it's a very serious issue. So initially it was a very painstaking issue for me. Now that I'm used to it, I know what to do and what not to do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Coding tools

http://dirtdirectory.org

Welcome //
The DIRT Directory is a registry of digital research tools for scholarly use. DIRT makes it easy for digital humanists and others conducting digital research to find and compare resources ranging from content management systems to music OCR, statistical analysis packages to mindmapping software.

I NEED A DIGITAL RESEARCH TOOL TO...

- Analyze data
- Interpret data
- Model data
- Annotate
- Analyze networks between my data
- Archive data
- Organize data
- Capture information
- Preserve data
- Clean up data
- Program
- Collaborate
- Publish
- Comment
- Record audio/video
- Communicate
- Analyze relationships between pieces of data
- Analyze the content of my data
- Share
- Contextualize data

EDITORS
- Twitter stub pages

ABOUT
The DIRT Directory is a registry of digital research tools for scholarly use. (more)

NEWS
DIRT plugin available for Commons In A Box (CBOX) Scholarly Network
27 Mar 2015
DIRT partners with TAPoR to provide "recipes"
27 Mar 2015
Bring DIRT into your classroom with our "assignment-in-a-box"
26 Mar 2015
Coding software

Capture for NVivo

Source type

- Tweets as Dataset (including Retweets)
- Tweets as Dataset (excluding Retweets)
- Web Page as PDF

Source name

METROLibraryCouncil (@mynyc) | Twitter

Description

Description

Show capture progress page
NVivo
Dedoose
Data visualization

[Image of a Data Visualization Tool]
Other data visualizations
Why do qualitative research?

- Capturing the range of experience
- Exploring individual experiences
- Understanding processes
- Answering questions you never thought to ask
- Identify service gaps

Time consuming and labor intensive → worth it!
Questions?
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