

Assessment in Focus: Analyzing Data from Interviews & Focus Groups

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METRO | April 23, 2015

Learning outcomes

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

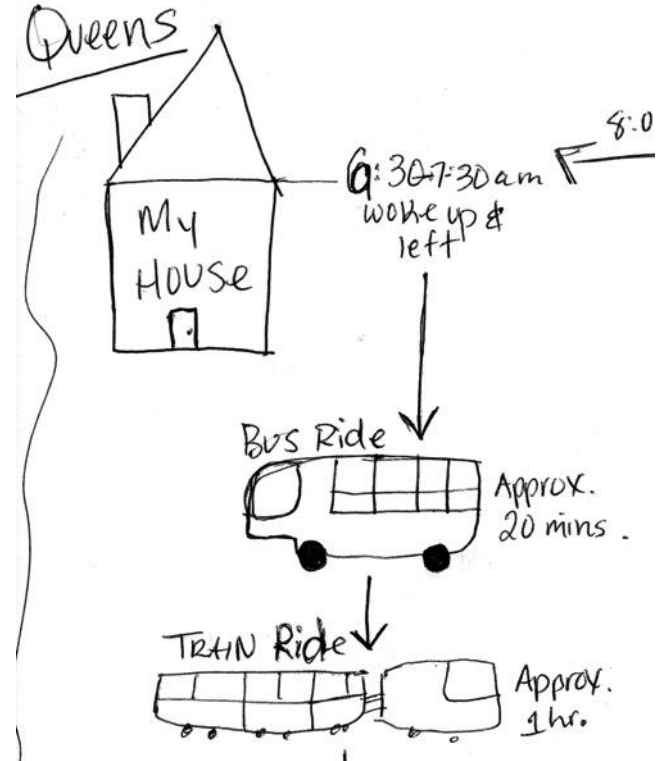
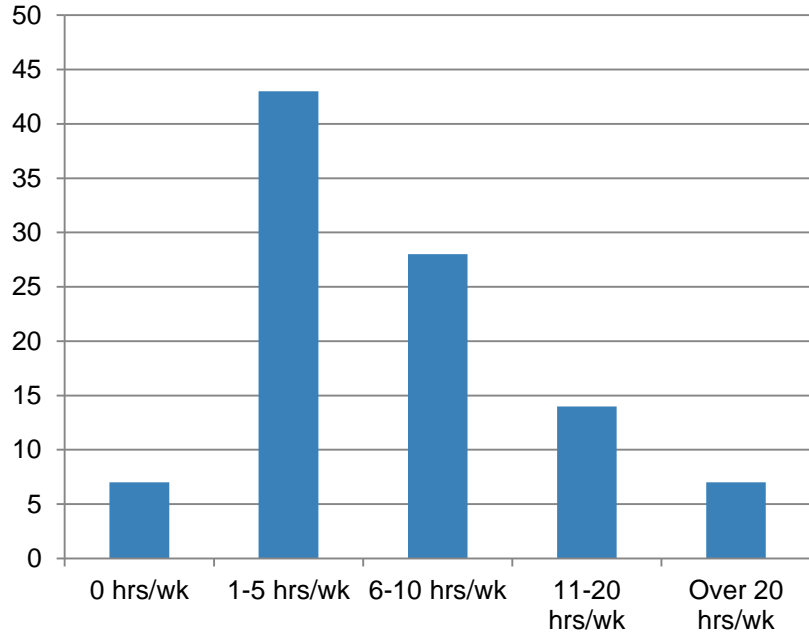
- Understand the strengths and challenges of qualitative data analysis;
- Learn and apply basic techniques for transcribing and coding text, audio, and visual data collected from interviews and focus groups;
- Be familiar with various approaches to qualitative data analysis, including analyzing sample data and qualitative analysis software.

Today's plan

- Introduction
 - Situated in qualitative research
- Transcription
 - Audio transcription exercise
- Coding data
 - Define-your-codes exercise
 - Coding methods
 - Coding a transcript exercise
 - Coding tools
- Wrap up + questions

Quantitative + qualitative data

CUNY Students' Commute Time



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

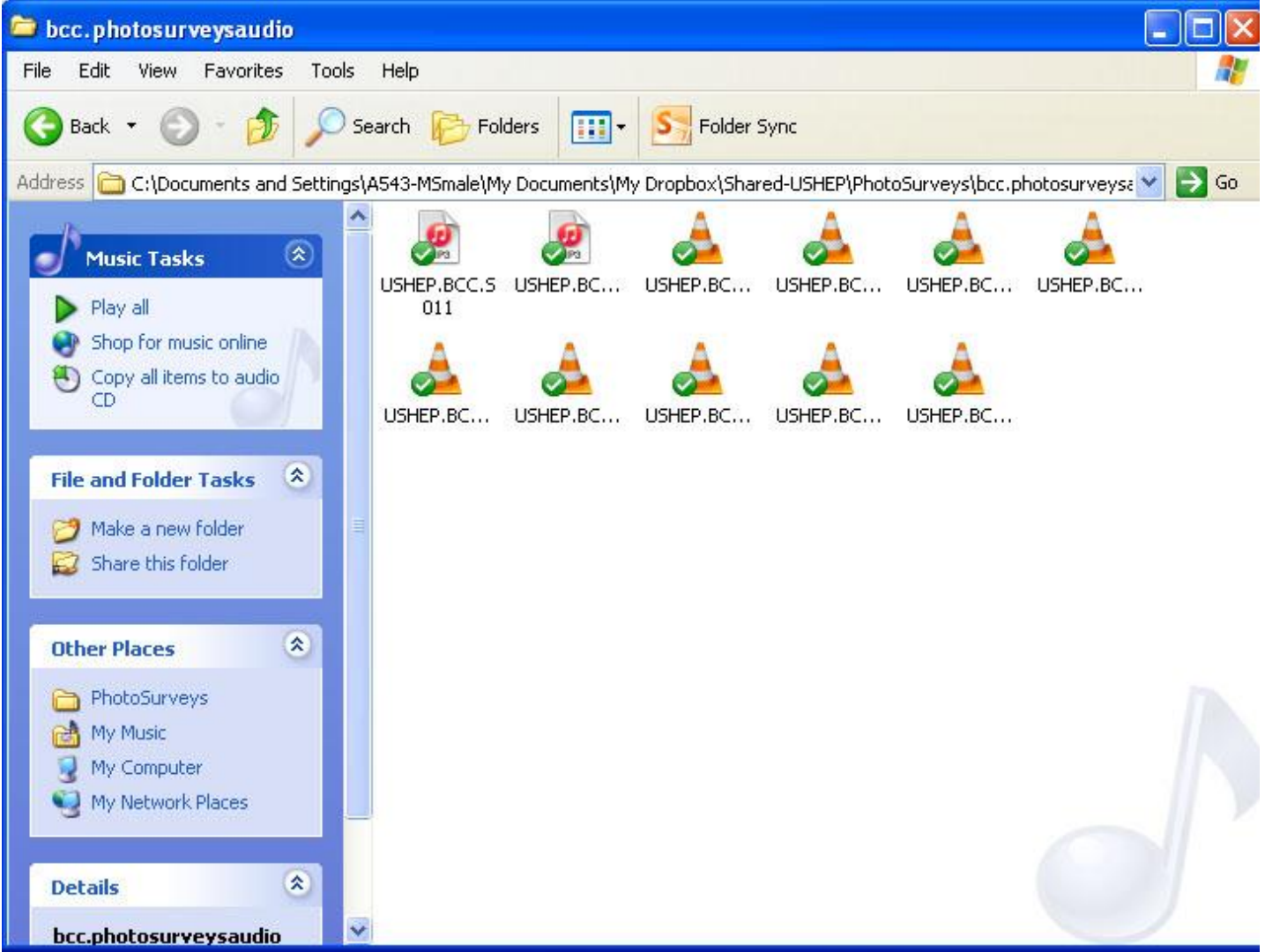
<https://tinyurl.com/qualchecklist>

Audience → analysis

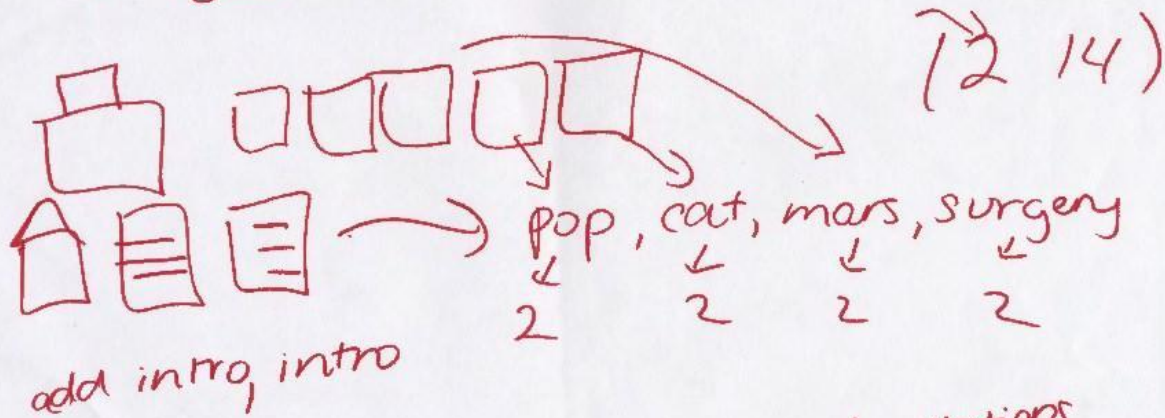
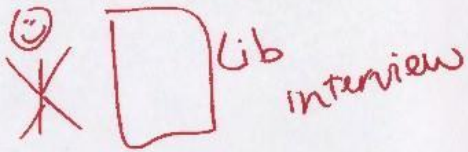
Your research goal and audience will determine how much time you spend on data analysis.

What can qualitative data look like?

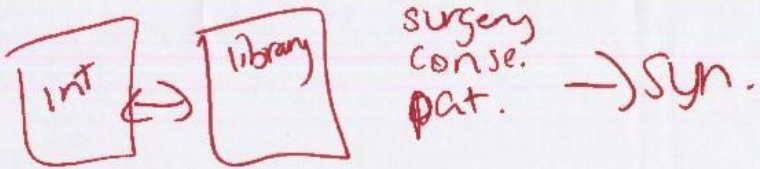








last citations



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

The screenshot shows the Express Scribe software interface. At the top, there are menu items: Sync, Load, Load & Delete, Dock, Scribe Mini, Preferences, and Help. Below this is a table of recordings:

Dictation Name	Sender	Date	Time	Duration
20081209 190158		2008-12-10	13:28:07	05:40

Below the table is a progress bar. Underneath that is a speed control slider labeled "Speed (100%)". At the bottom are playback controls: a play button, a stop button, a previous button, a next button, and a fast forward button. A time display shows "0:00:00.0".

Five numbered callouts provide instructions:

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?

Faculty Interview Notes

File Edit View Insert Format Data Tools Add-ons Help

Rich text editor toolbar with icons for undo, redo, bold, italic, underline, text color, background color, bulleted list, numbered list, link, unlink, table, table border, indent, outdent, and other formatting options.

education & reading dept. 11 at bcc (28 in all) ED courses ED10, ED12 into ED40 capstone

A	B
a	education & reading dept. 11 at bcc (28 in all) ED courses ED10, ED12 into ED40 capstone
	<p>ASSIGNMENTS EDI) basic research on ed theorists (montessori, gardiner, 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 indepth knowledge of educational resources because they are just starting out" more important to learn the theory, by wathcing in classrooms. ED12 a lot more online research but within the board of education and a few other sites. looking at statistics. more critial thinking and analysis, compare and contrast,</p>
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 students 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 fromt he library databases then it turns out their work is not indepth, very superficial for the comparison. These are the symptoms. I review the journals they give me and if one is not ok they re-do 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	Field work, working with students in schools. create weeklong lesson plan, with a theme, three themes "North pole, animals, solids, liquids, gasses and stories" and need to back upwith 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	EXPECATIONS 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	new thing: portfolio
12:40:00	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 becuse 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 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 throught hte Sloan Consortium online training and I immediately began offering course in a hybrid mode and then to an asynchronous, and sinse 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 I think they learn the stuff really really well. When I would look at summative essays from ED12 9 years ago asking the quesiton "what have you learned" as opposed to now, I find the depth of their leraning unbelievable. It 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?

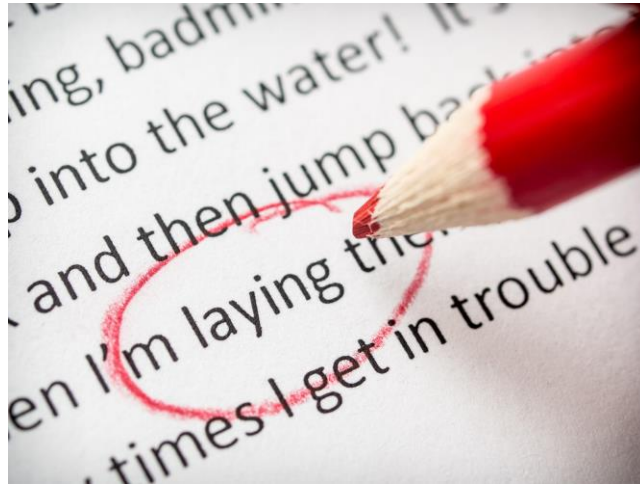
"A code is a specific label you assign to a category which in turn indicates a piece of data or particular form of data." (Layder 2013, pp. 129-159)

"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



Brief Codes (6 minutes)

Codebook Name: METRO Practice 4/23/2015

	Space
Brief Definition	Any comments related to facilities and use of building, such as lockers, group study rooms, physical technology.
	People/staff
Brief Definition	For comments about librarians and other staff.
	Collections
Brief Definition	For references to online or book/physical resources used.
Code Name	Services
Brief Definition	For comments about ILL, agreements with other librarians, reference, teaching, and events.
	Positive
Brief Definition	For comments that are pleased. Use in tandem with other codes or on its own.
	Negative
Brief Definition	For critiques. Use in tandem with other codes, in addition to on its own.

Full Codes (4 minutes)

Code Definition Template

Research	
Brief Definition	Speaker mentioning any information task related to an information need.
Full Definition	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.
When to Use	When participants describe their information activities related to answering a question.
When Not to Use	Do not use it if the speech is hypothetical. Always look for concrete examples.
Example	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.

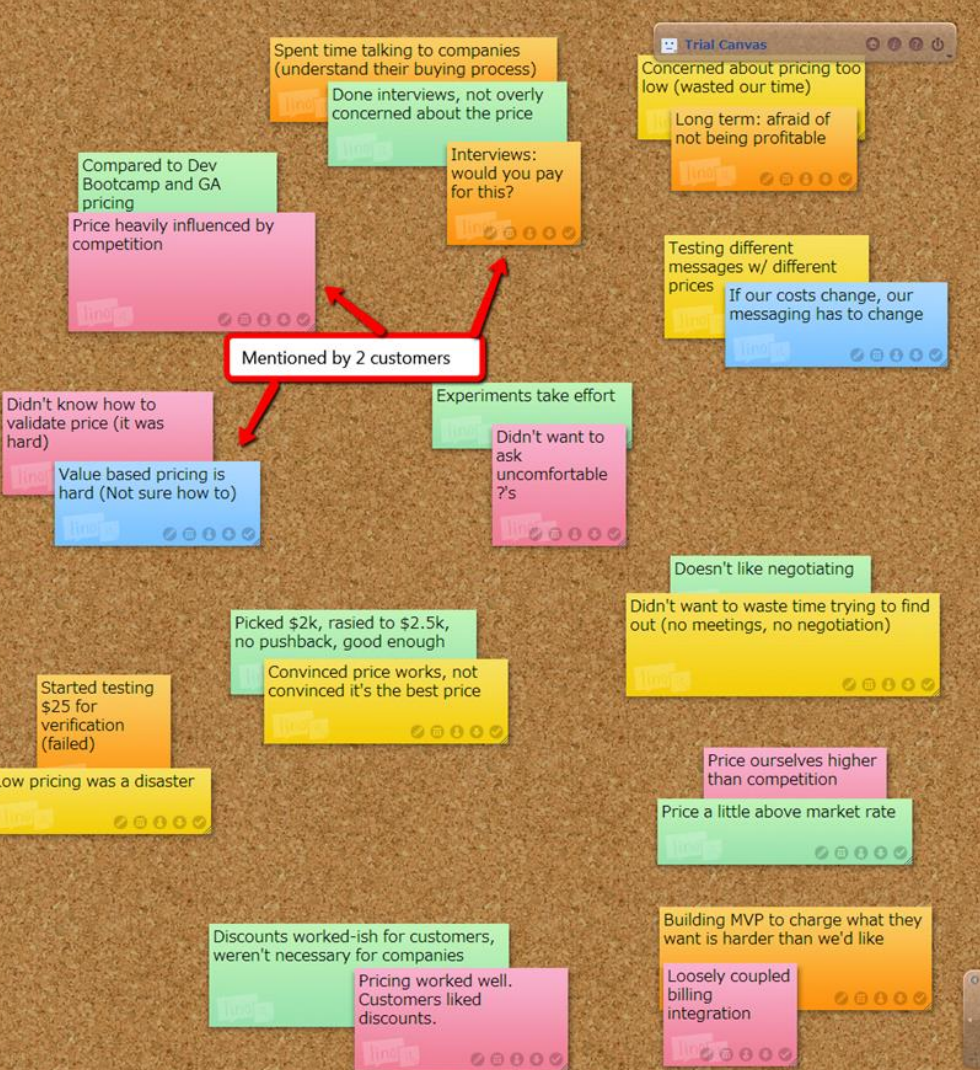
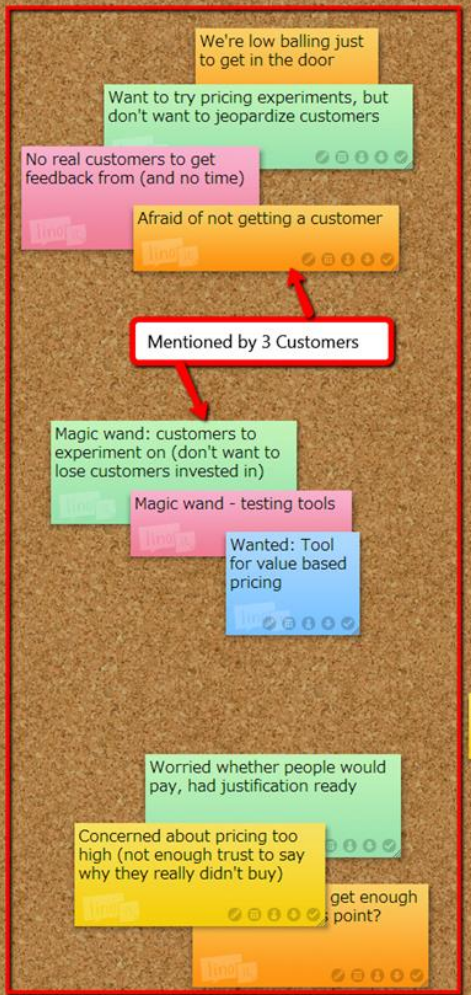
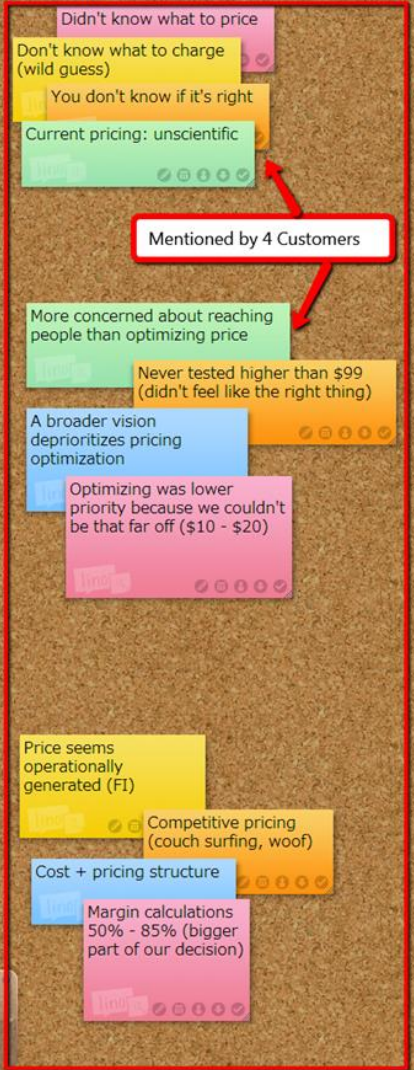
Let's take a quick break!

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)

Data ↔ Codes ↔ Themes

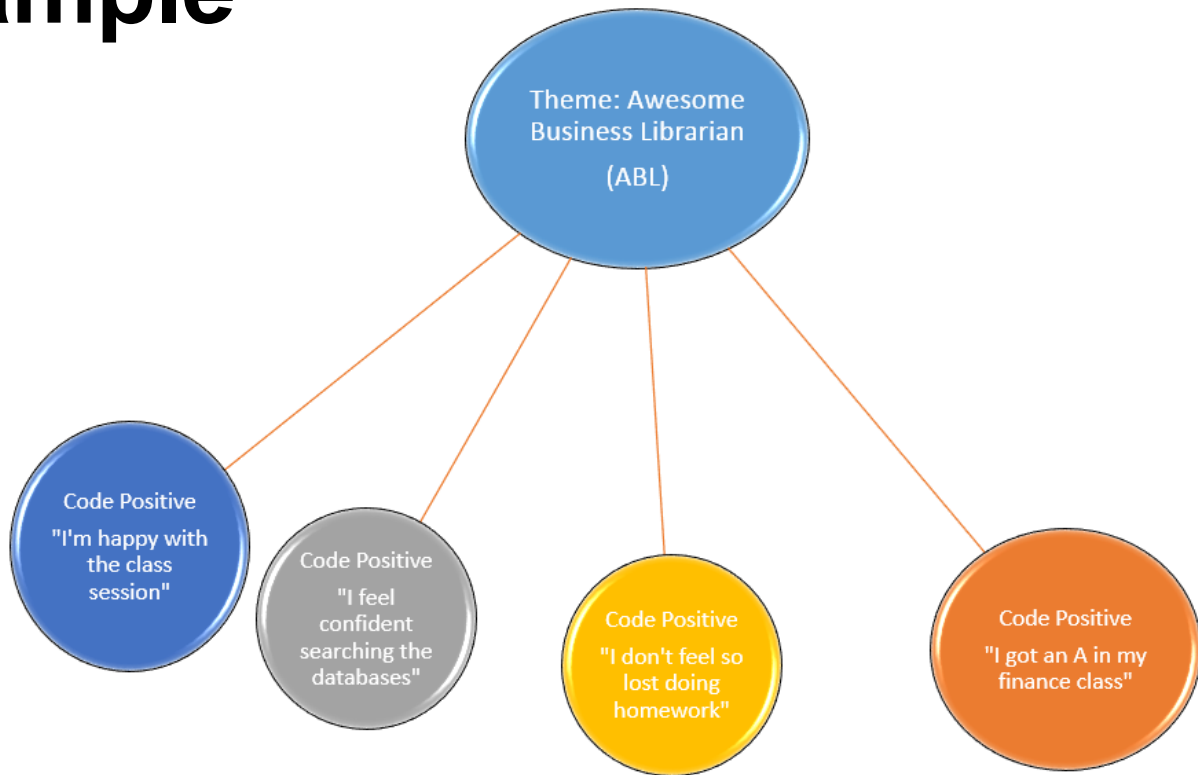
Data: The textual representation of a conversation, observation, or interaction.

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.

A visual example



Intercoder agreement

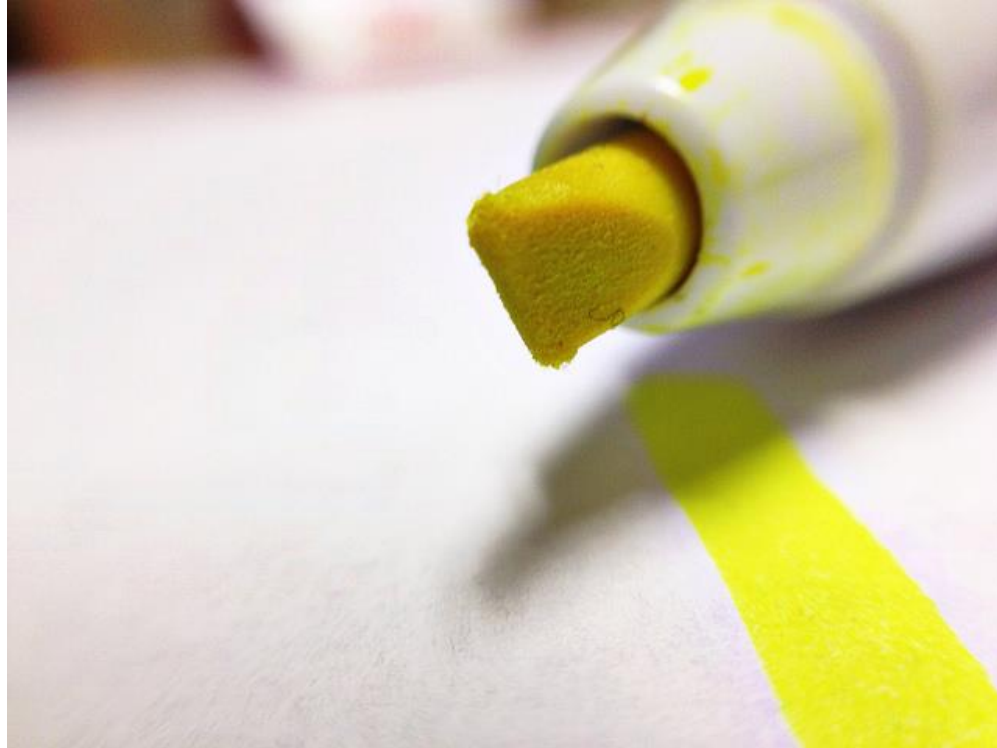
Common methods:

- 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



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

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

[more](#)

ATLAS.ti

The screenshot displays the ATLAS.ti interface with several key components:

- Video Player:** Shows a still image of pink flowers with the text "Smile, it enhances your face value" and "Dolly Parton".
- Filmstrip:** A vertical strip of video frames with a red circle highlighting a specific frame.
- Metadata List:** A list of tags such as "IC: content_nature focussed", "IC: content_water", "IC: focus_centre", "source: activities", "source: attitude", and "source: balance of mind and".
- Transcript:** A text-based transcript with line numbers 10 through 16. Line 13 contains the title "Smile, it enhances your face value".
- Coded Transcript:** A transcript where segments are highlighted with colored bars and associated with tags like "source: attitude", "source: singer / song writer", "country (side)", and "success".

A yellow speech bubble points to the transcript area with the text: "Video and transcript linked via time marks".

A red circle highlights the filmstrip and the corresponding metadata tags, with a double-headed arrow indicating the link between them.

Another red circle highlights the "coded transcript" area, showing how tags are applied to specific parts of the text.

NViVo

InterviewsPSCCUNY44.nvp - NVivo

File Home Create External Data Analyze Query Explore Layout View Media

Look for: Search In: Internals Find Now Clear Advanced Find

Internals

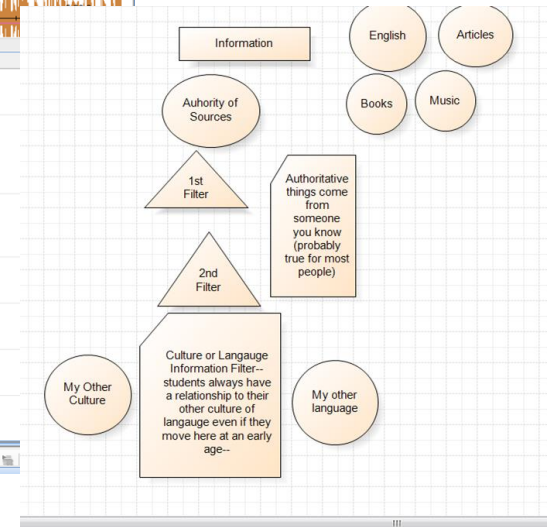
Name	Nodes	References	Created On	Created By	Modified On	Modified By
Focus Group 1	9	16	1/24/2015 7:44 AM	FA	4/12/2015 8:44 AM	FA
Focus Group 2	0	0	2/20/2015 6:42 PM	FA	4/12/2015 8:52 AM	FA
Focus Group 3	0	0	2/16/2015 9:46 AM	FA	2/16/2015 9:50 AM	FA
Focus Group 4	0	0	2/16/2015 9:51 AM	FA	4/10/2015 10:34 AM	FA
Focus Group 5	0	0	2/16/2015 10:01 AM	FA	2/16/2015 10:21 AM	FA
Interview	0	0	2/16/2015 9:39 AM	FA	4/12/2015 8:54 AM	FA

Focus Group 1 Triad Bet Focus Group 2 Dyad Ch Focus Group 5 Triad Ass Interview Chales Sources clustered by wo Word Frequency Query Word Frequency Query - Focus Group 4 Triad Nor

Timespan	Content	Name
1		Frans
2	0:03.0 - 0:32.7 What are the languages you use in high school in your home country? Did you study English? Did you use other languages for different subjects?	Frans
3	0:32.7 - 0:49.7 So I speak Chinese in my Chinese high school. And I studied English in my Chinese high school. Only Chinese speak in the high school.	Charles
4	0:49.7 - 0:54.5 So you studied English, did you study any other languages?	Frans
5	0:54.4 - 0:57.3 English.	Charles
6	0:57.3 - 1:00.4 How many years?	Frans
7	1:00.4 - 1:01.8 Is more than 10 years.	Charles

Sources Nodes Classifications Collections Queries Reports Models Folders

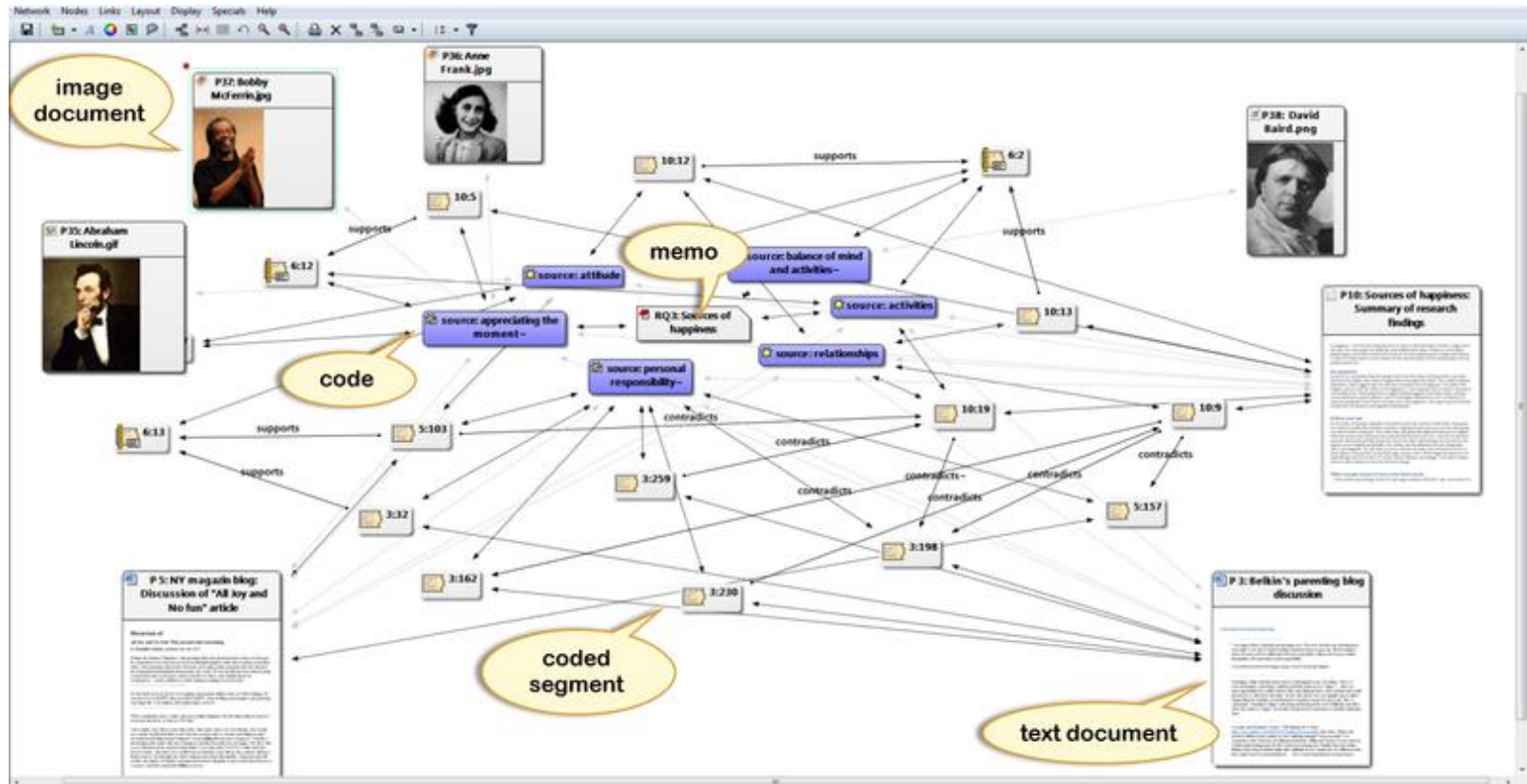
In Nodes Code At



Data visualization

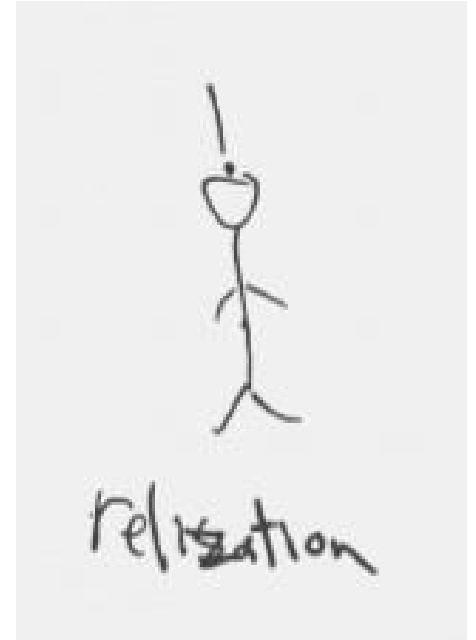


Other data visualizations



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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Works Cited and Consulted

Bernard, H. R. (2012). *Social Research Methods: Qualitative and Quantitative Approaches (Second Edition)*. Los Angeles: SAGE Publications, Inc.

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<http://irdlonline.org>

Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis*. Los Angeles: Sage Publications.

Layder, D. (2013). *Data analysis: Concepts & coding*. In *Doing excellent small-scale research*. (pp. 129-159). London: SAGE Publications Ltd. doi: <http://dx.doi.org/10.4135/9781473913936.n8>

Image credits

- Nick Olejniczak <http://www.flickr.com/photos/nicholasjon/4101203095>
- Lunaweb <http://www.flickr.com/photos/lunaweb/3013493166>
- Scantracker <http://www.scantracker.com/FootPedal.jpg>
- Orin Zebest <http://www.flickr.com/photos/orinrobertjohn/239595034>
- [Tropenmuseum of the Royal Tropical Institute \(KIT\)](#)
- <http://www.transcriptionwave.com/blog/wp-content/uploads/2012/03/ExpScribeControls1.png>
- <http://cdn.bleedingcool.net/wp-content/uploads/2014/08/sound-wave-600x325.png>
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- <http://customerdevlabs.com/2013/09/10/customer-development-notes-finished-post-its/>