Leveraging the Power of Qualitative Data Analysis Software

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Polls

Which QDAS do you primarily use?

NVivo

MAXQDA

ATLAS.ti

Dedoose

Others

None

Experience with QDAS software?

No experience

Beginner

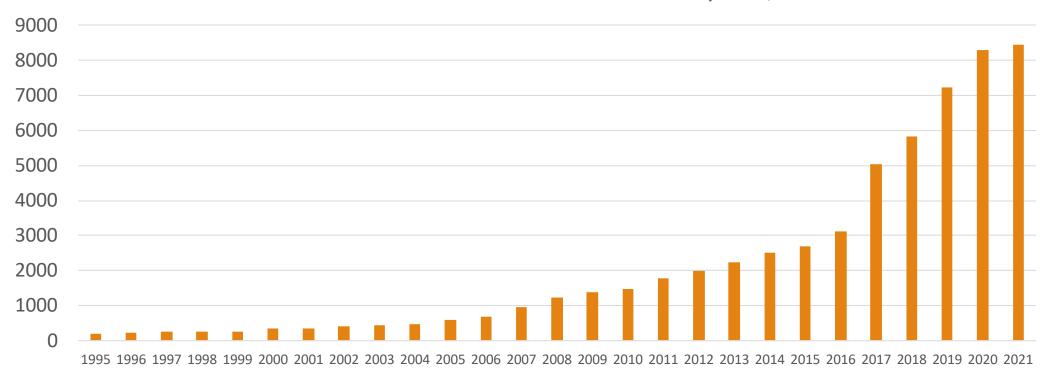
Some training

Proficient

Expert

Intro - Growth of Qualitative Research

Web of Science Search for "Qualitative Research" by Year, 1995-2021



Qualitative methods at the VA

The VA is considered a leader across the nation for qualitative methods expertise

Many of the VA COINs have a Qualitative Core



Note: this list was compiled in 2021 as part of a scoping review of qualitative research within VA for a previous cyber-seminar. It may not contain every VA site with a qualitative research presence.

Why are qualitative methods important in healthcare?

- •Firsthand documentation of patient experiences
- •An overview of suggestions for improvement
- •The ability to detect common concerns and desires associated with the quality of care
- Information about what matters most to patients
- The opportunity to identify obstacles to growth and change

How qualitative methods in PH and HSR are different from traditional methods

Shorter timeframe

Sharper focus

Larger sample sizes

More likely teambased

More likely to be mixed with other methods

Practical – many similarities to QI

.... A need to be more systematic/transparent

Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups

ALLISON TONG^{1,2}, PETER SAINSBURY^{1,3} AND JONATHAN CRAIG^{1,2}

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Abstract

Background. Qualitative research explores complex phenomena encountered by clinicians, health care providers, policy makers and consumers. Although partial checklists are available, no consolidated reporting framework exists for any type of qualitative design.

Objective. To develop a checklist for explicit and comprehensive reporting of qualitative studies (indepth interviews and

Qualitative Data Analysis Software

Offers a "flexible suite of tools to use in managing and working through qualitative (and mixed methods) data, aiding analysis and interpretation in the process" (Bazeley 2018)

Coding

Memoing

Linking

Querying

Visualization











Allows for analysis of a wide range of data

Advantages of using Qualitative Data Analysis Software (QDAS)

Free from manual/clerical tasks

Save time

Analyze large amounts of data

More flexibility

Improved validity/auditability



Many types of software, 3 approved in VA





Five Steps Qualitative Research

- 1.Data exploration / Open Coding
- 2. Codebook Development
- 3.Coding
- 4. Analysis: comparisons between groups/sites
- 5. Analysis: synthesis / conceptual model creation

Memoing

Data Exploration & Open Coding

CASSIE GOEDKEN

Data Exploration/Open Coding

Exploration of the data directly informs the creation of the codebook

Quantitative content analysis word frequency

Helps identify **patterns** in your data within line, paragraph, page, document

Provides an introduction to your data

Advantages of using the qualitative software

- Visualization
- Quick
- Linkage between documents/document sets
- Audit trail

Data Exploration: Word Clouds

Word clouds provide a visual representation of words that frequently appear in a set of interviews, documents, or other text

Automatic way of showing the most used words by making them bigger

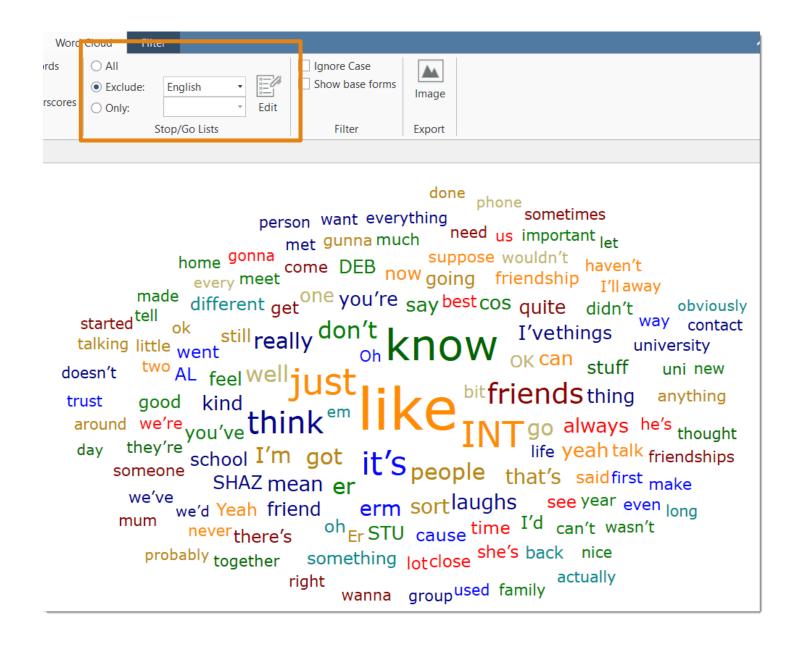
A good way to initially explore data, to get a general overview with a compelling visual before diving into specifics

 Can explore word frequency counts for individual documents, groups of documents, or content connected to a particular code

Can also be used for communicating the most salient points or themes in the reporting stage

"A picture is worth a thousand words"

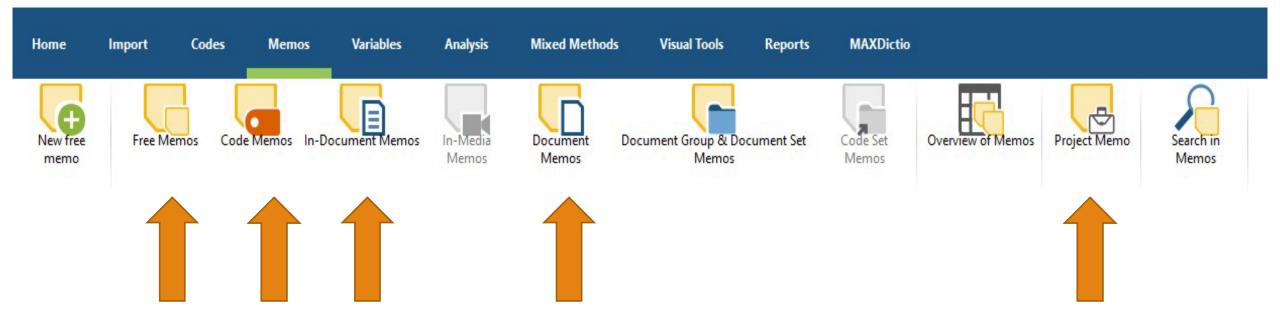
Available with NVivo, ATLAS.ti, and MAXQDA



Software: ATLAS.ti9

Citation: https://doc.atlasti.com/ManualWin.v9/Exploring/ExploringWordClouds.html

Memo Options



All

All Memos 🗸 🗙







These codes will be used to classify the participants assessment of various aspects connected to life satisfaction and special situations.

Title	Preview	Origin	Modified by	Modified	Created by	Created	Document	Code	Document group	Docun
MAXQDA Exam	10/13/2021 2:28 PM This project gives you a s	Project	VHAIOWPAEZM	3/2021 2:28 PM	Max	9/2019 6:46 PM				
T Friends	It is interesting to see where talking about frie	Code	Max	9/2019 6:50 PM	Max	9/2019 6:50 PM		Friends		
M Assessments	These codes will be used to classify the partici	Code	Max	9/2019 6:53 PM	Max	9/2019 6:53 PM		Assessments		
? Memo 1	George faces a difficult career conflict here – h	In-document	Max	6/2019 4:19 PM	Max	6/2019 4:19 PM	George		Interviews New	
Memo 2	Despite George saying that he's satisfied with \dots	In-document	Max	6/2019 4:20 PM	Max	6/2019 4:20 PM	George		Interviews New	
? Memo 3	Is George talking about himself and his own la	In-document	Max	6/2019 4:25 PM	Max	6/2019 4:25 PM	George		Interviews New	
Memo 6	Resentment towards parents - I wonder how o	In-document	Max	6/2019 4:04 PM	Max	6/2019 4:04 PM	Max		Interviews New	
Memo 9	Again, this touches on Vinnie's life strategy. H	In-document	Max	6/2019 5:22 PM	Max	6/2019 5:22 PM	Vinnie		Interviews New	
Memo 10	I could picture Vinnie's dad saying this every d	In-document	Max	6/2019 5:23 PM	Max	6/2019 5:23 PM	Vinnie		Interviews New	
Memo 15	Issues of doubt - both self and family.	In-document	Max	6/2019 6:25 PM	Max	6/2019 6:25 PM	Jamie		Interviews India	
Memo 16	Not sure what makes this quote stand out to \dots	In-document	Max	6/2019 6:15 PM	Max	6/2019 6:15 PM	Jamie		Interviews India	
Memo 17	Bit of a conflict here – Jamie loves her friends, \dots	In-document	Max	6/2019 6:26 PM	Max	6/2019 6:26 PM	Jamie		Interviews India	
Olsen et al. (201	This source is available here: https://doi.org/1	Document	Max	4/2019 2:54 PM	Max	8/2019 5:55 PM	Olsen et al. (201		Literature	
Ocean et al. (20	This source is available here: https://doi.org/1	Document	Max	4/2019 2:54 PM	Max	8/2019 6:00 PM	Ocean et al. (20		Literature	
Joanna playing	Created by Priscilla Du Preez (unsplash.com)	Document	Max	9/2019 7:25 PM	Max	9/2019 7:25 PM	Joanna playing		Pictures	
Devin's team	Created by Joshua Allwood (unsplash.com)	Document	Max	9/2019 6:47 PM	Max	9/2019 6:47 PM	Devin's team		Pictures	
Building a tower	We have integrated a video into this example	Document	Max	6/2019 5:00 PM	Max	6/2019 5:00 PM	Building a tower		Videos	

Codebook Creation

LINDA KAWENTEL

Codebook Creation

Codebook creation is an analytic task that connects data to ideas underpins qualitative data analysis!

Qualitative codebooks contain a list of codes and definitions of codes

 Process is like cataloging – connect the passages in source data that relate to a particular topic, where topic is represented by a label

Allows for researchers/teams to stay organized

Codebook creation is an iterative process

Advantages of software

- •No paper/highlighters/index cards = No limits to coding structure
- Everything in one place

NVivo Coding Stripes in Codebook Development/Coding

Coding stripes are colored bars displayed alongside source content that allow you to see how the content is coded

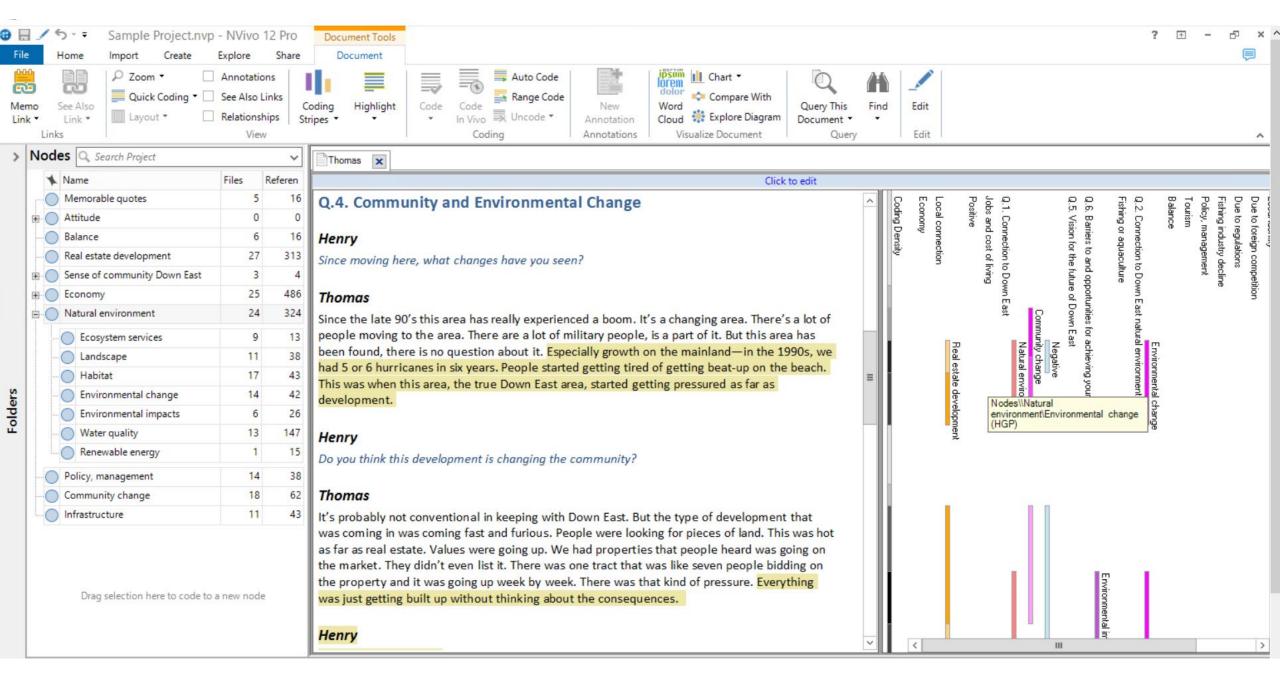
Visualizes what you have coded to a particular code

Clicking on a particular coding strip will highlight the content coded to the corresponding code

Users can also use coding stripes to uncode content

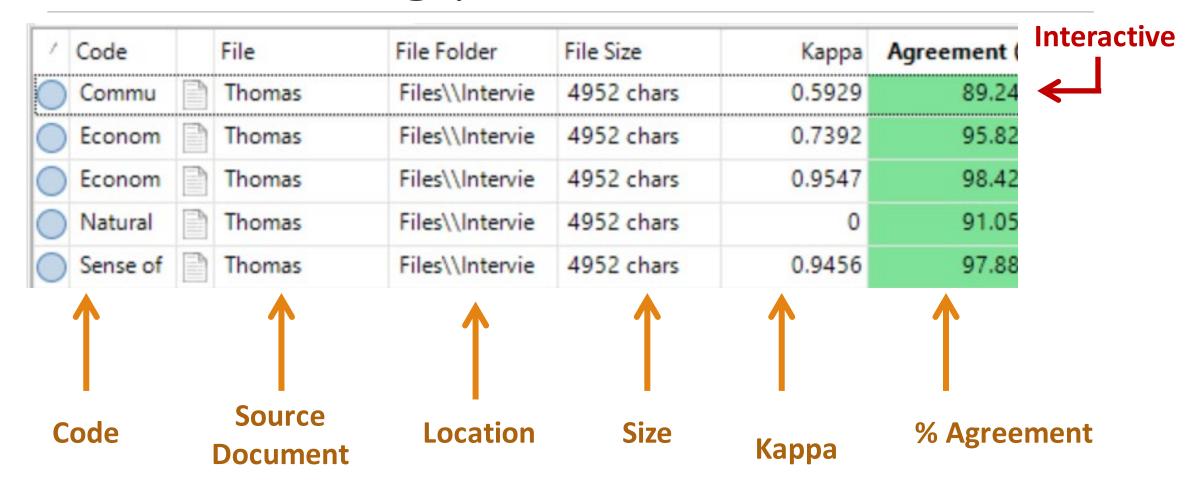
Coding stripes serve many useful functions, including allowing the user to:

- View how content has been coded by different users (helpful when taking a team-based coding approach) and case classifications (e.g., occupation = service chief)
- Examine the coding density light gray (minimal coding) to dark gray (maximum coding)
- See the nodes with the most or least coded content helpful in visualizing dominant codes/themes in source materials



Software: NVivo 12

Nvivo Coding Comparison Queries as a tool for refining your codebook

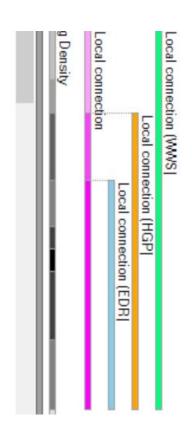


NVivo allows you to view coding discrepancies using coding stripes

What is your connection to Down East, how did you come to be here?

Thomas

I am not a Down Easter by generation by any sense. I am a dingbatter. That is what I am. But it is a beautiful area to live. I chose to live here. We've lived down here for about six or seven years now. A lot of people look at you strangely when you say you want to move to a remote area. But to me, there's a lot of beauty in that, of being remote. To me it's not that bad. I can't imagine why anyone would want to leave to tell you the truth. I can understand why Down Easters like living here, it's in their blood. And it might be in mine too to some extent. The main thing, besides the water and the beauty of the areas, is the people. I like the personalities and the character of these people. They are independent, they are self-starters, they are hard workers. They will make it regardless of any recession. They are that kind of people. They are good people that live Down East. And that's probably the big attribute that this area has got.



Coding

MONICA PAEZ

Coding

Organizing and applying codes

Creating sub-codes / sub-categories

Deleting, merging, splitting codes

Advantages of using software for coding:

- Easily re-organize codes
- See big picture as codebook changes in real-time
- At a glance counts/frequencies of codes
- Collaboration

Qualitative Coding

Coding is a means of working through iterative cycles of induction and deduction to power our analyses.

Coding IS part of analysis, but not the only part (once you code, you are NOT done).

Codes are used to file (categorize) segments of text related to particular research questions of interest.

Clear operationalized definitions and examples are critically important so codes can be consistently applied by a single coder over time or applied by multiple team members. (You need a codebook)

Keep in mind that <u>qualitative codes are not themes</u>. You will later need to use your codes to help find patterns and categories.

Creating codes directly from the data in NVivo and MAXQDA

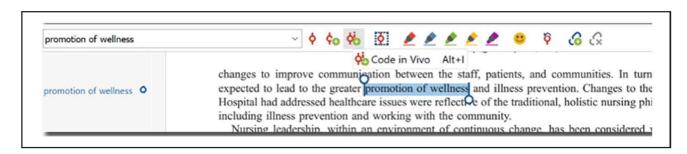


Figure 22. In vivo coding (creating code names directly from data) in MAXQDA.

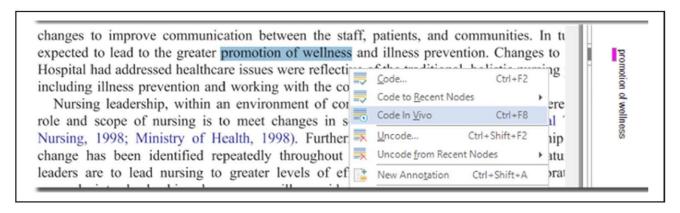
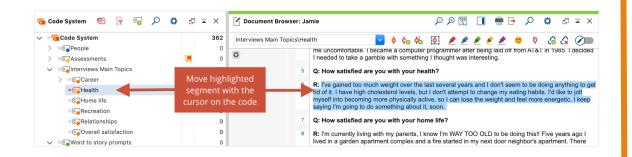
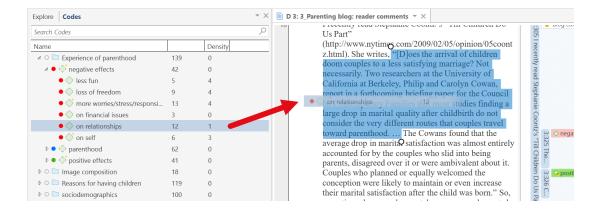


Figure 23. In vivo coding (creating code names directly from data) in NVivo.

6.14 x 9.21 in

Deductive coding in ATLAS.ti and MAXQDA





Analysis: Comparing Between Groups

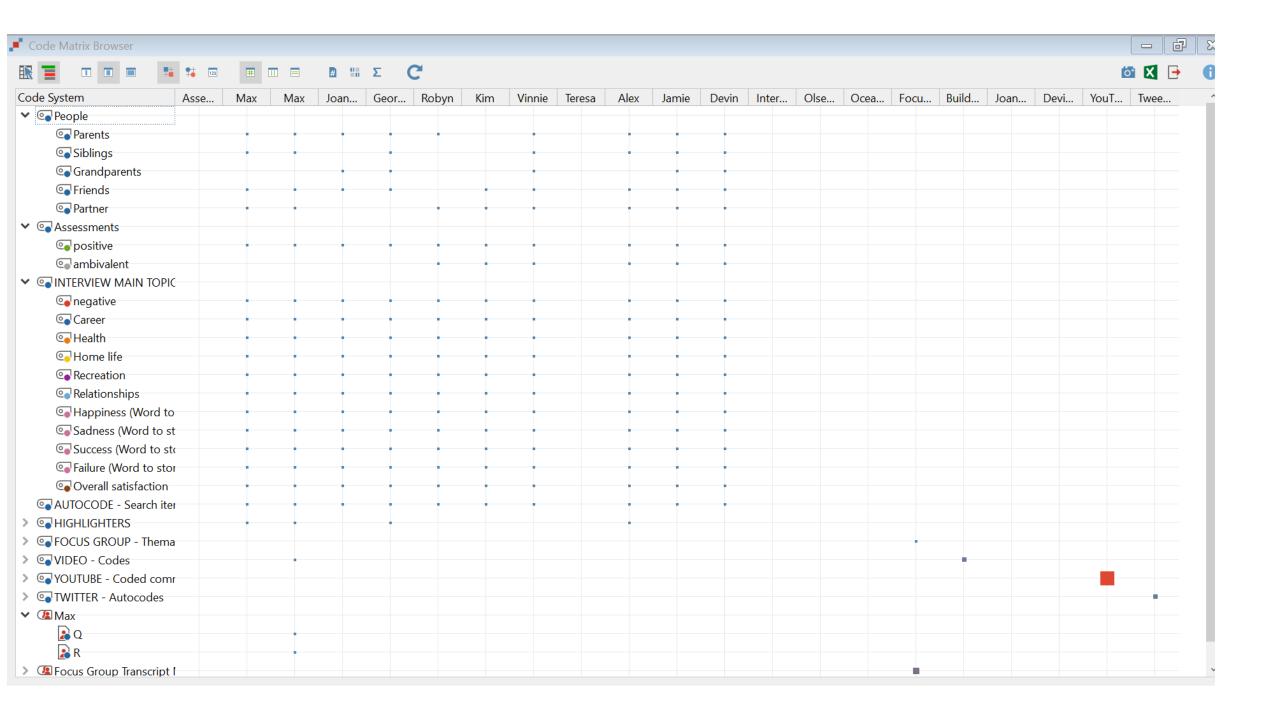
MONICA PAEZ

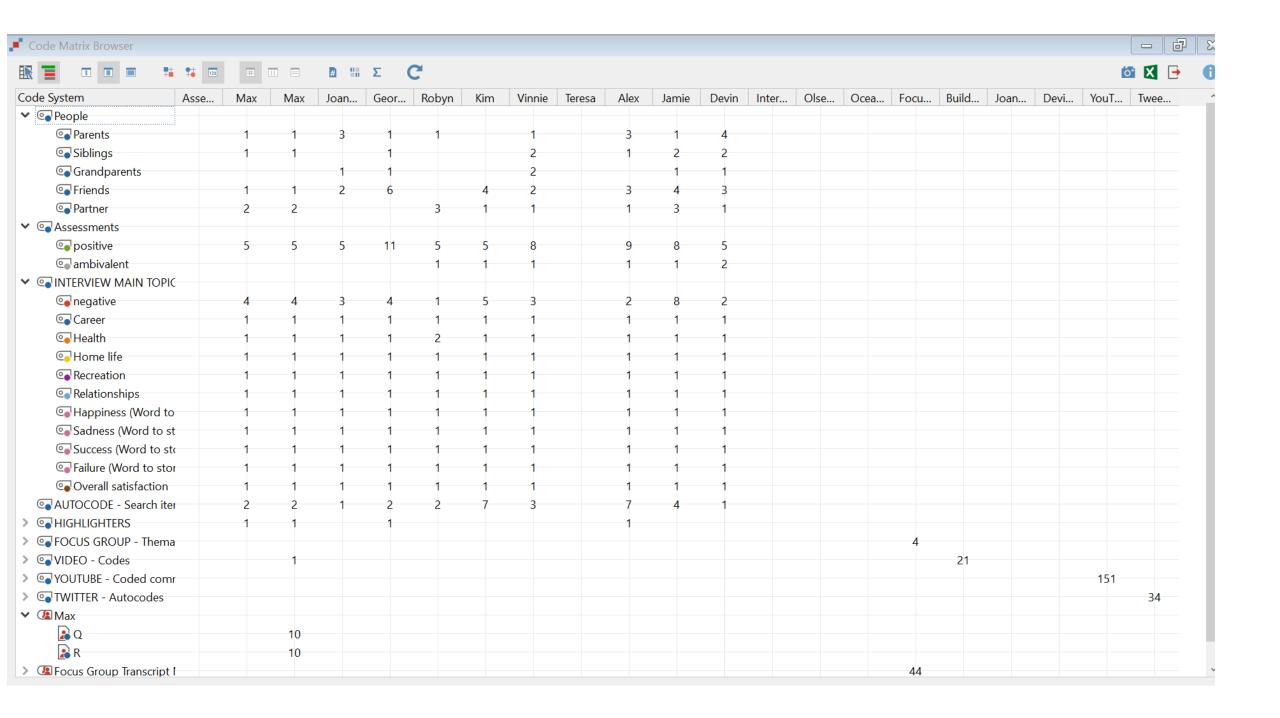
Analysis: Comparing Between Groups

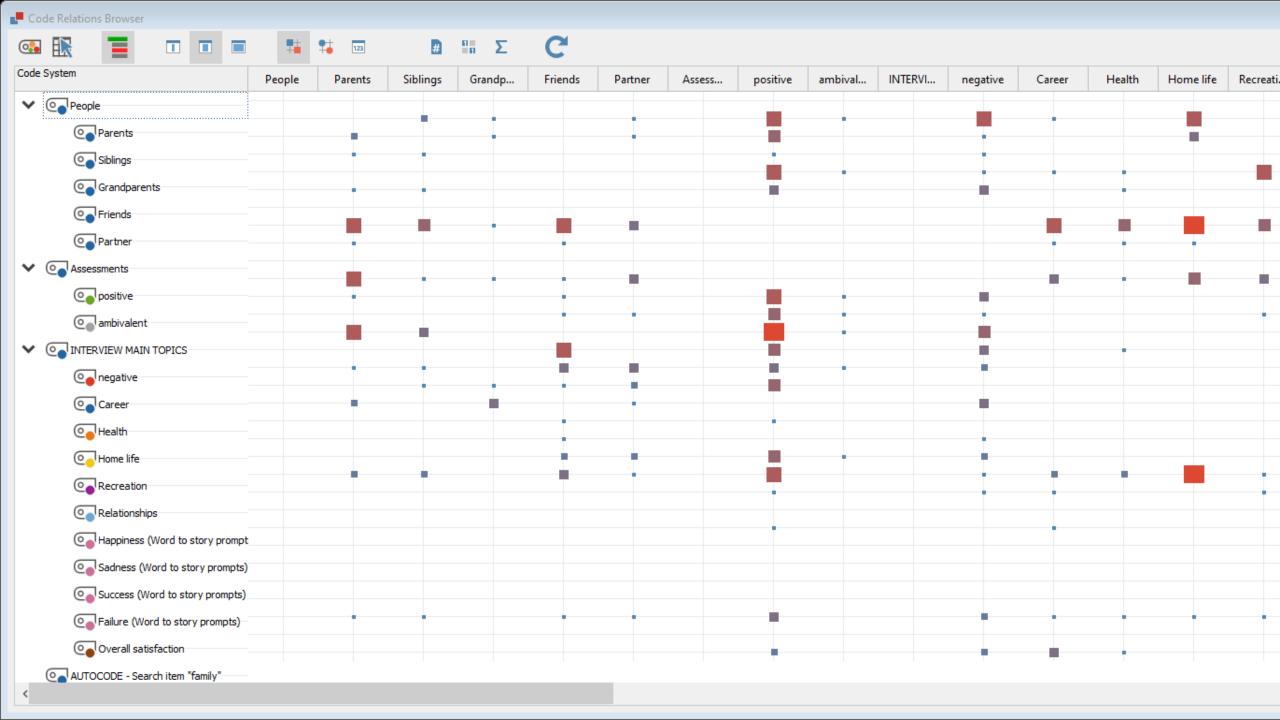
Mixing methods—adding attribute data to compare sites/groups/creating matrices

Advantages of software:

- •Fast!
- •Visual displays can be compelling, exportable
- Easy to change/flexible
- Easily link quant/categorical data and generate matrices







Compare Qualitative responses by groups/sites (Attributes/Variables)

NVivo allow you to store and use attribute data about individuals or groups within your database:

	A:Township △ 🌣	B : Community ▼	C : Generations Down E ▼	D: Commercial Fishing 🔻	E: Recreational Fishing ▼	F: Income Tied to Reso 7
1 : DE022	Atlantic	Atlantic	3 or more	Yes	No	no, but was
2 : DE023	Atlantic	Atlantic	3 or more	Yes	No	yes
3 : DE024	Atlantic	Atlantic	3 or more	No	No	yes
4 : DE055	Atlantic	Atlantic	1	No	No	no, never
5 : DE058	Atlantic	Atlantic	none	No	Yes	no, never
6 : DE059	Atlantic	Atlantic	3 or more	No	Yes	no, never
7 : DE086	Atlantic	Atlantic	3 or more	No	Yes	no, but was
8 : DE094	Atlantic	Atlantic	none	No	Yes	no, never
9 : DE100	Atlantic	Atlantic	2	No	Yes	no, never
10 : Charles	Atlantic	Atlantic	1	Unassigned	Unassigned	Unassigned
11 : Richard	Cedar Island	Cedar Island	3 or more	Unassigned	Unassigned	Unassigned
12 : Ken	Cedar Island	Cedar Island	3 or more	Unassigned	Unassigned	Unassigned
13 : Patricia	Cedar Island	Cedar Island	3 or more	Unassigned	Unassigned	Unassigned
14 : DE017	Cedar Island	Cedar Island	3 or more	Yes	Yes	no, but was
15 : DE021	Cedar Island	Cedar Island	3 or more	No	Yes	no, never
16 : DE029	Cedar Island	Cedar Island	3 or more	Yes	No	yes
17 : Maria	Davis	Davis	1	Unassigned	Unassigned	Unassigned
18 : Margaret	Davis	Davis	3 or more	Unassigned	Unassigned	Unassigned
19 : Daniel	Davis	Davis	2	Unassigned	Unassigned	Unassigned
20 : DE025	Davis	Davis	3 or more	No	Yes	no, never
21 : DE035	Davis	Davis	3 or more	No	No	no, never
22 : DE069	Davis	Davis	1	No	No	no, but was
23 : DE075	Davis	Davis	3 or more	Yes	No	yes

Matrix Query

		A : Person:Commercial Fishing = Yes	7	B : Person:Recreational Fishing = Yes	7
1 : Due to cost of doing business	7	0		4	
2 : Due to environment impacts of fishing	V	0		8	
3 : Due to foreign competition	V	0		4	
4 : Due to natural variation	V	0		0	
5 : Due to regulations	7	2		3	
6 : Due to tourism and development	V	2		4	
7 : Due to water quality decline	7	0		5	

Crosstab Query

Person	Education Level = Comp	pleted high school (17)	Education Level = Some trad	de school/community college 5)	Education Level = Some undergraduate college/university (12)	
	Gender = Female (5)	Gender = Male (12)	Gender = Female (6)	Gender = Male (9)	Gender = Female (3)	Gender = Male (9)
Agriculture	0	1	0	0	1	0
Fishing or aquaculture	5	11	5	9	3	9
Jobs and cost of living	3	5	1	2	0	1
Tourism	0	1	0	0	0	0
Total (unique)	5	11	5	9	3	9

Analysis: Conceptual Frameworks

SHIMRIT KEDDEM

Analysis: Conceptual Frameworks

Developing conceptual frameworks is a common goal

Displaying data to explore overarching connections

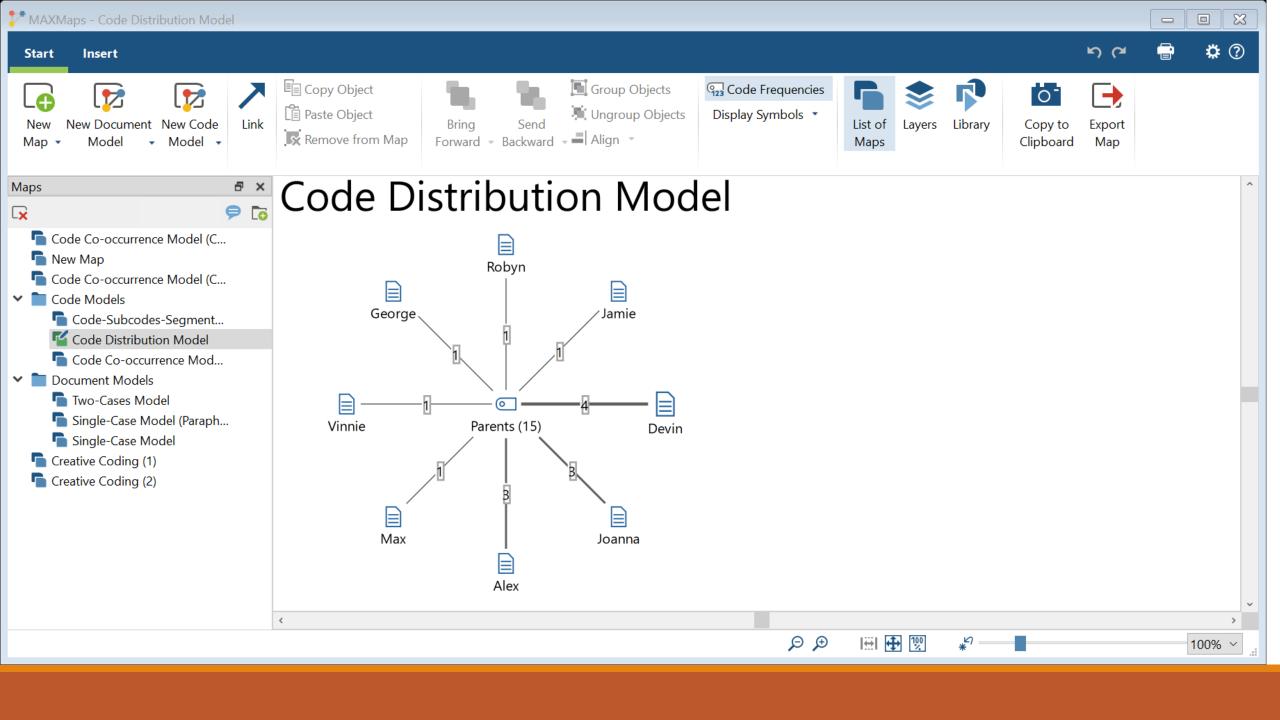
Identifying connections between codes and revisiting the codes / subcodes

Advantages of software:

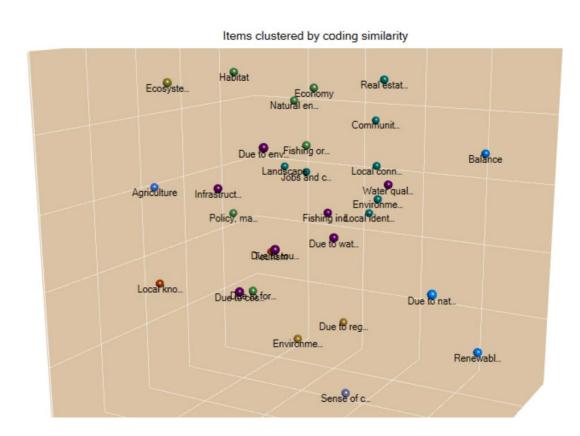
Visual displays can be compelling, exportable

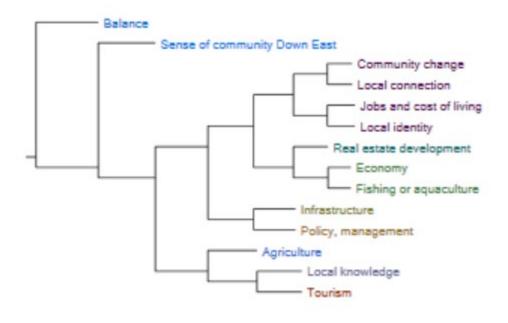
Easy to change/flexible

Easily linked back to source data/codes



Nvivo cluster analyses can help find patterns in your data after coding





Memoing

SHIMRIT KEDDEM

Memoing

Important step in qualitative research > Paper Trail!

Record patterns, issues and connections to be compared and contrasted later

A researcher uses memos to:

- 1. Identify a specific aspect of an excerpt
- 2. Note its pattern, significance, or uniqueness
- 3. Comment on variations and/or interconnections
- 4. Pose unanswered questions

Developing draft of final write-up

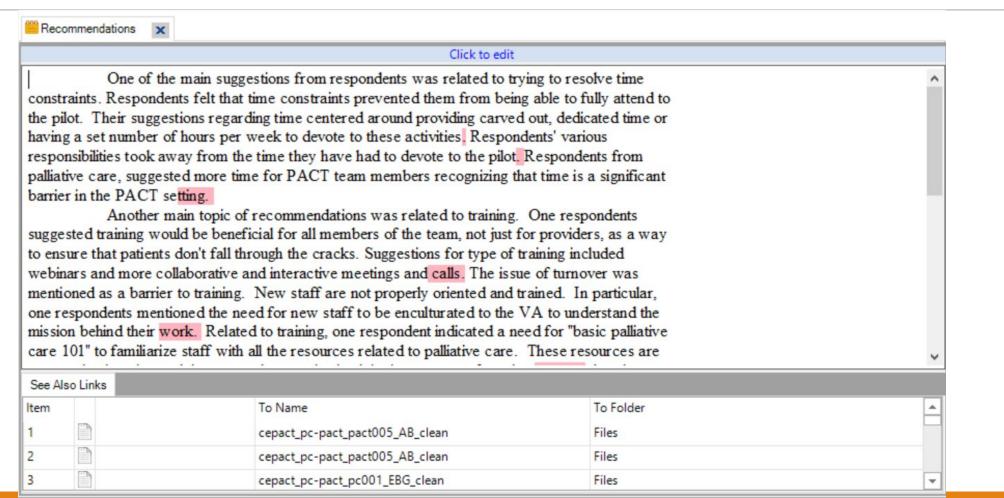
Advantages of using software:

Create unlimited memos

Link memos to any other part of the database

Begin writing results with links

Use See Also Links in NVivo to start writing a results section



Export the memo to MS Word with quotes as endnotes

Recommendations for Improving the PC PACT Program

One of the main suggestions from respondents was related to trying to resolve time constraints. Respondents felt that time constraints prevented them from being able to fully attend to the pilot. Their suggestions regarding time centered around providing carved out, dedicated time or having a set number of hours per week to devote to these activities. Respondents' various responsibilities took away from the time they had to devote to the pilot. Respondents from palliative care, suggested more time for PACT team members recognizing that time is a significant barrier in the PACT setting. Various responsibilities took activities.

See Also Links

Time is always a factor. I'm like if we had carved out dedicated time to do it that would have been ideal.

, I say to dedicate some time to it would be nice without with the interruptions and stuff.

I have been diverted into so many different directions that we have diluted my ability to be involved in this project at all. <u>And</u>, my hopes are that I would be able to, at some point in time, at least to devote 12 to 16 hours a week on this project.

i Internals\\cepact_pc-pact_pact005_AB_clean

ii Internals\\cepact_pc-pact_pact005_AB_clean

iii Internals\\cepact_pc-pact_pc001_EBG_clean

Recap

Qualitative methods have grown — widely accepted in HSR A need to be more systematic/transparent

QDAS provides a range of tools for analysis of many types of data

Advantages of using QDAS include

- •Free from manual/clerical tasks
- Save time
- Analyze large amounts of data
- More flexibility
- Improved validity/auditability

Resources

Saldaña, J. (2016). The coding manual for qualitative researchers. Los Angeles, Calif. L Sage Publications

Bazeley, P., & Jackson, K. (2013). Qualitative data analysis with NVivo. 2nd ed. London: SAGE.

Smit, B. (2002). Atlas. ti for qualitative data analysis. Perspectives in education, 20(3), 65-75.

Kuckartz, U., & Rädiker, S. (2019). Analyzing qualitative data with MAXQDA (pp. 1-290). Basel, Switzerland:: Springer International Publishing.

Kalpokas, N., & Radivojevic, I. (2021). Bridging the gap between methodology and qualitative data analysis software: A practical guide for educators and qualitative researchers. Sociological Research Online, 13607804211003579.

What Qualitative Data Analysis software can and can't do for you – an intro video

https://atlasti.com/qualitative-research-methods/

https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home

https://www.maxqda.com/

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