



Family Medicine

What to Know about NVivo: A Qualitative Primer – Part II

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Agenda

1. Part I recap
2. Bias and rigour in qualitative analysis
3. Coding as a team
4. Demo of a final coding structure and how to use it
5. How qualitative data is reported
6. Alternatives to NVivo

Learning Objectives

1. Understand methods to ensure rigour in qualitative analysis (and check your bias!)
2. Understand the steps required to code as a team
3. Understand how to interpret, present, and report qualitative data
4. Learn about a few alternatives to NVivo software

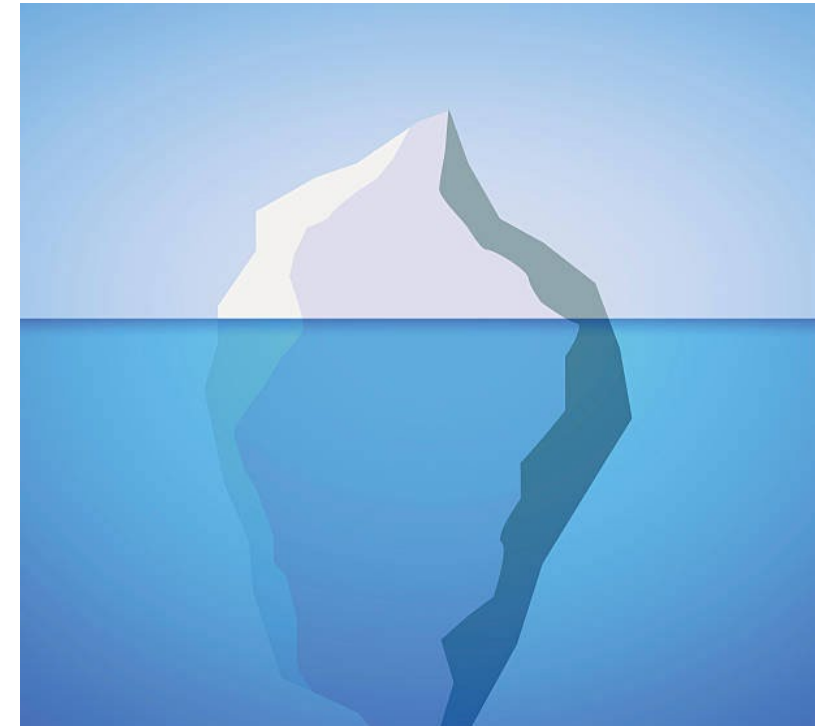
Part I Recap

- Thematic or content analysis (there's many more qualitative methods than this)
- Six phases of thematic analysis
 - Know the data, generate codes, create themes, review, name, report
- Demo of coding with NVivo (import data, create codes)

➤ Recommended resources: [NVivo Training Videos](#)

Bias in Qualitative Analysis

- Questions in Part I about bias
- Post-positivism
 - Multiple measures and observations: lots of room for error?
 - need for **triangulation** across sources
 - all observations theory-laden; we are biased
 - All bring our worldviews (aka positionality, subjectivity)



➤ Recommended reading: Berger, 2015

Rigour in Qualitative Analysis

- Establish **rigour** through reliability, validity, and trustworthiness
- Role of the researcher in qualitative requires **reflexivity**
- Role of research team members is to question and reflect on the process: team reflexivity, transparency
- What are we taking for granted in our understanding of the data?
- How does my way of thinking/being influence my understanding of what the data is saying?

Rigour - concepts

- Reliability (inter-coder)
 - Visibility of research practices, analysis and conclusions
 - Mindful of partiality and limits of research findings
- Validity
 - To validate, question, and theorize the meaning, attributes, and characteristics of phenomenon under study
 - Trustworthiness: credibility, transferability, dependability, confirmability

TIP: Use the COREQ checklist

➤ Recommended reading: Lincoln & Guba 1985; Cypress 2017

Increasing Trustworthiness

Increasing Credibility

- Prolonged engagement
- Triangulation
- Peer debriefing
- Negative case analysis
- Member-checking

Increasing Confirmability

- Confirmability audit
- Audit trail
- Triangulation
- Reflexivity

Increasing Transferability

- Thick description (of themes, setting, participants)

Increasing Dependability

- Inquiry audit



Analytic strategies for increasing rigour

- Coding data from notes, observations or interviews
- Recording **insights** or **reflections** (as well as decisions)
- Sorting through the data to identify similar phrases, patterns, themes, sequences and important features
- Looking for commonalities and differences among the data and extracting them for further consideration and analysis
- Gradually deciding on a small group or generalizations that hold true for the data
- Examining and reflecting on these generalizations based on existing knowledge, assumptions, etc.

➤ Recommended reading: Neergaard 2009

Showing your work (from a Methods section)

"We followed the six phases suggested for thematic analysis from Braun and Clarke (2006).

First, two research team members (FP and JG) familiarized themselves with the data through review and reflection on interviews and field notes (Phase 1).

Initial codes were then generated (Phase 2) by FP and JG, who met regularly to confirm the consistency of the coding structure and resolve any disagreements through discussion.

The two worked together to search for themes (Phase 3), review themes (Phase 4), and define/name themes (Phase 5) with regular check-in meetings and input provided from GA and LD.

Phase 6 entails the report being produced as seen in this paper.

As described in Lincoln and Guba (1985), to increase the credibility and confirmability, triangulation was used, combining different methods of data collection, multiple perspectives, and multiple analysts (Patton 1999); and to increase transferability, thick descriptions were used to describe the study sample and setting"



Demo

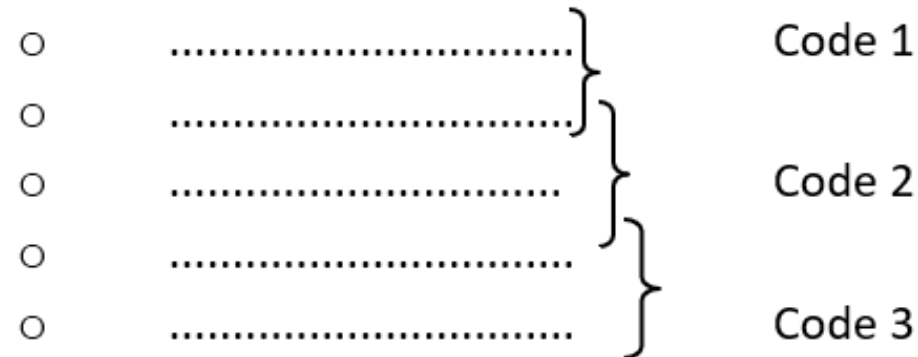
How to Code as a Team

1. Read 2-3 transcripts, always asking:
 - What is **the main concept, topic or idea** of this statement?
 - Is it relevant to our research question(s)?
 2. Jot down emerging codes in Word document or on paper
 3. Meet as a Team to discuss and create coding structure
 4. Start building coding structure in NVivo
 5. Assign an NVivo File Master
 6. File Master sends copies of NVivo file to all coders
 7. Coders add nodes to existing codes and create new codes only when necessary
- Recommended reading: Guidelines for Teams Using NVivo, Valaitis & Cleghorn in shared drive Qualitative folder

From: Guidelines for Teams Using NVivo

3. Highlight enough of the text to get the gist of what is being talked about. Including the Interviewer question is often helpful unless the question goes on and on or contains multiple questions. In that case, cut and include only the part of the question to which the response refers.

- Code no more than a short paragraph but more than just a few words
- Do select a larger block of text and assign several codes to the same large block
- When the TOPIC of the statement is about more than one thing, you can code each bit of text at more than one node
- The same text can overlap the text of two other nodes



NVivo Team Coding Golden Rules

- When in doubt, right click!
- Meet, meet, meet as a team to discuss, compare and agree/disagree on coding structure
- Meet as a team to clump and clean coding structure
- Maintain an audit trail of team decisions, reflections
- **Never edit an existing node or a transcript** - messes up the file merge
- Obey the NVivo File Master

Use NVivo Help and online tutorials

Presenting results

- Tables with themes and sub-themes; can include quotes
- Text organized by theme with quotes
- Write up findings specifically to answer research question(s)

From: [Examining Interprofessional teams structures and processes in the implementation of a primary care intervention \(Health TAPESTRY\) for older adults using normalization process theory](#)

Themes	Elements of the theme
Construct #1: Coherence (sense-making, purpose of the intervention)	
Generating comprehensive assessments of older adults	<ol style="list-style-type: none"> 1. Better information about client's needs, goals, risks, wants obtained through volunteer visits 2. Data collection screening processes improved 3. New patient information generated to support more comprehensive care and follow up
Strengthening health promotion, disease prevention, and self-management for aging at home	<ol style="list-style-type: none"> 1. Care shifting to be more proactive and focused on health promotion and disease prevention 2. Seniors supported to age at home 3. Improvements in self-management 4. Enhancements in health education
Enhancing patient-focused care	<ol style="list-style-type: none"> 1. Caring and open relationship with patients and volunteers as confidantes 2. Patient engagement in care enhanced wherein patients are more connected and have a voice 3. Patients feel valued and cared for by clinic staff
Strengthening interprofessional care delivery	<ol style="list-style-type: none"> 1. Strengthened team-based approach to care 2. Role of volunteers in supporting primary health care explored
Improving coordination of health and community services	<ol style="list-style-type: none"> 1. Knowledge of community resources by patients and team increased 2. Improvements to access to community-based resources
Construct #2: Cognitive Participation (buy-in, engagement)	
Tackling new ways of working	<ol style="list-style-type: none"> 1. Huddle teams experience the biggest changes in ways of working, while those not in the huddle teams experience the least 2. Huddle coordinator facilitates MDs, residents and multi-disciplinary team to contribute new patient information to huddle and coordinate care 3. Volunteer role accepted by patients as part of the health care team, but could be misinterpreted as health professionals by patients
Attaining role clarity	<ol style="list-style-type: none"> 1. Challenges for primary care providers outside of huddles (i.e., MDs, residents) to understand their roles in relation to the huddle team, HT reports and alerts and follow up with patients 2. Lack of clarity by volunteers regarding their role with patients (e.g., advice giving) (for some) 3. Huddle team members learn one another's roles and perceive benefits through increased teamwork and collaboration

Construct 1: coherence - sense making

Coherence refers to the sense-making work that people do individually and collectively when they are faced with implementing a new practice or intervention. Here, we consider how the actors understood HT and aims and benefits of the new model. In addition, we explore if and how the work differs from the usual way of working. Five themes emerged in relation to coherence as follows.

1) Generating comprehensive assessments of older adults:

Participants noted that one of the main goals of HT was for primary care to generate improved screening and more comprehensive assessments of older adults including their needs, goals and risks. A volunteer explained how their home visit, and the questions they ask, differed from standard care:

... a lot of the questions we ask aren't really questions that a [family physician] would necessarily ask their patient, depending on why they happened to be there on a particular day. [...] most people go to the doctor for a reason and you have 15 or 20 minutes to get that reason sorted out and so they don't really ask well, "What's your diet like" [Vol-8]

From: Perceptions of older adults in Ontario, Canada on the implementation and impact of a primary care programme, Health Teams Advancing Patient Experience: Strengthening Quality (Health TAPESTRY): a descriptive qualitative study

Category	Themes
Programme goals	<p>Lack of clarity about the programme's purpose and sharing of information: <i>'I don't really know'</i>.</p> <p><i>"I was always waiting for a purpose...the reason why you are doing this research, and really I never get the answer...And research, in my mind, it's when you are taking data, data, data, data and then you will come back to certain suggestions or a certain way or recommendation what I should do or what I will do...but it never came to that."</i> (R-106)</p> <p><i>"Well, my understanding it's for some kind of a program or a record...that maybe you want to compare with other people...I don't know how specific it is to me, or is it a group thing or a widespread thing...And it may have been more help to your end than my end, to be honest."</i> (R-29)</p> <p><i>"Well, I don't really know [how information from the home visit is shared.] I just figure you put it in the computer and I really don't know."</i> (R-30)</p> <p>Obtain a comprehensive assessment of clients: <i>'acquire as much information as possible'</i>.</p> <p><i>"...there will be a central data bank for me that will allow practitioners and professionals to access that file, which could save them hours and hours of doing the same research over and over again [...] they have available to them all of the information on me, my whole DNA, if I can call it that..."</i> (R-36)</p> <p><i>"...an attempt to acquire as much information as possible about senior citizens, their lifestyles, their diet, health and everything that one encounters as you approach old age."</i> (R-48)</p> <p>Support older adults to live at home: <i>'keep people healthy'</i>.</p> <p><i>"...the purpose of TAPESTRY, to make sure that people that are at home are being looked after properly and getting the proper care and know where they can get the proper care."</i> (R-270)</p>

Additional NVivo functions

Automatic coding of document source (autocode)

- Use "headings" in Word source document to autocode with NVivo
 - Auto code to create a node for each question (based on heading 1 [H1] and heading 2 [H2] styles)
 - Type of respondent

Case classifications

- Create "cases" or groups of your data for further analysis
- Attributes (demographics) such as age, gender, location, etc.

Queries

- Text search
- Word frequency
- Coding search
- Coding comparison
- Visualizations

Matrices

- Framework matrix
- Matrix coding query

➤ Recommended resources: [NVivo Training Videos](#)

Example of a framework matrix

- 1 Rows: each row represents a case node.
- 2 Columns: each column represents a theme node
- 3 Associated view: a node that (by default) displays source content that is coded at the row (case)
- 4 Cells: each cell is the intersection between a case and theme node

	A : experiences of volunt...	B : ima 2 olunteers	C : meanings of volunt...
1 : Anna Age Group = 20...	Regular volunteer with Starlight Children's Foundation helping with fundraising and wish granting	Everyday person with passion for helping others and the community.	Providing resourcing assistance to others by giving your power, expertise and knowledge at no
1 2 : Fredric Age Group = 30...	Used to help organize Church socials. Enjoyed it because I enjoyed interacting with like-minded people.	Community-minded person with plenty of spare time. Ones I know are housewives, married ladies who are	Doing something for the community at no charge.
3 : Bernadette Age Group = 60+	Involved in com ^t groups. Helping injured wildlife and representing consumers in Mental Health.	Community minded, sharing people. Must be energetic.	A way that people can share their abilities and skills to benefit the community.
4 : Mary Age Group = 60+	Meals on Wheels in late 1980's, but friend couldn't continue with it and so lost interest. For last five years have	Someone with time who is financially secure (can work for no money). Typically an older woman in her	4

3

Q.4 Volunteering experience

Interviewer: Have you done any volunteer work?
Anna: Yes, I have. And I still do.
Interviewer: What did you do, and when?
Anna: am currently registered as a volunteer for... regularly help with fundraising events and wish granting.
Interviewer: How was the experience?
Anna: The experience of granting a wish is extraordinary. It's great to be able to make such a meaningful difference – and provide them with memories that I have also assisted a big charity with their annual... be able to bring a smile to the faces of families at... certainly take part in this again in the future. I have also taken part in tree planting for Landcare... volunteer work I had done. Gardening and the... pastime activities, so it was a great opportunity... doing my bit to make a difference for future generations.
Interviewer: Would you do more in future?

Matrix coding queries

	A : Community change ▾	B : Policy, management ▾	C : Local connection ▾	D : Economy ▾
1 : Barbara ▾	2	2	6	6
2 : Betty ▾	0	0	0	1
3 : Charles ▾	4	4	4	6
4 : Daniel ▾	3	4	4	2
5 : Dorothy ▾	5	0	3	9

Matrix Coding Query - Results				
	A : case study ▾	B : ethnography ▾	C : phenomen... ▾	
1 : Journal Article:Author = McCarthy, James; ▾	0	1	1	
2 : Journal Article:Author = Bennett, G.; ▾	1	0	0	
3 : Journal Article:Author = Campbell, L. M.; ▾	0	0	2	
4 : Journal Article:Author = Clay, P. M.;Olson, J.; ▾	0	1	0	
5 : Journal Article:Author = Darling, E.; ▾	0	0	1	
6 : Journal Article:Author = Fortmann, L.;Kusel, J.; ▾	1	0	0	



Alternatives

Analysis

- Qualitative takes a long time ... any alternatives?
- Rapid Turn Around Method – Neha

Software

- NVivo is expensive: \$895 USD perpetual license, \$99 for student with student ID
- Dedoose: cheap @ \$12/month, cloud-based, OK for smaller data sets
- Excel for qualitative: no cost, trialing with a DFM project now

➤ Recommended resources: See shared drive [dfmresearch>Research Resources>Qualitative](#)

Ose, S. O. (2016). Using Excel and Word to structure qualitative data. *Journal of Applied Social Science*, 10(2), 147-162.

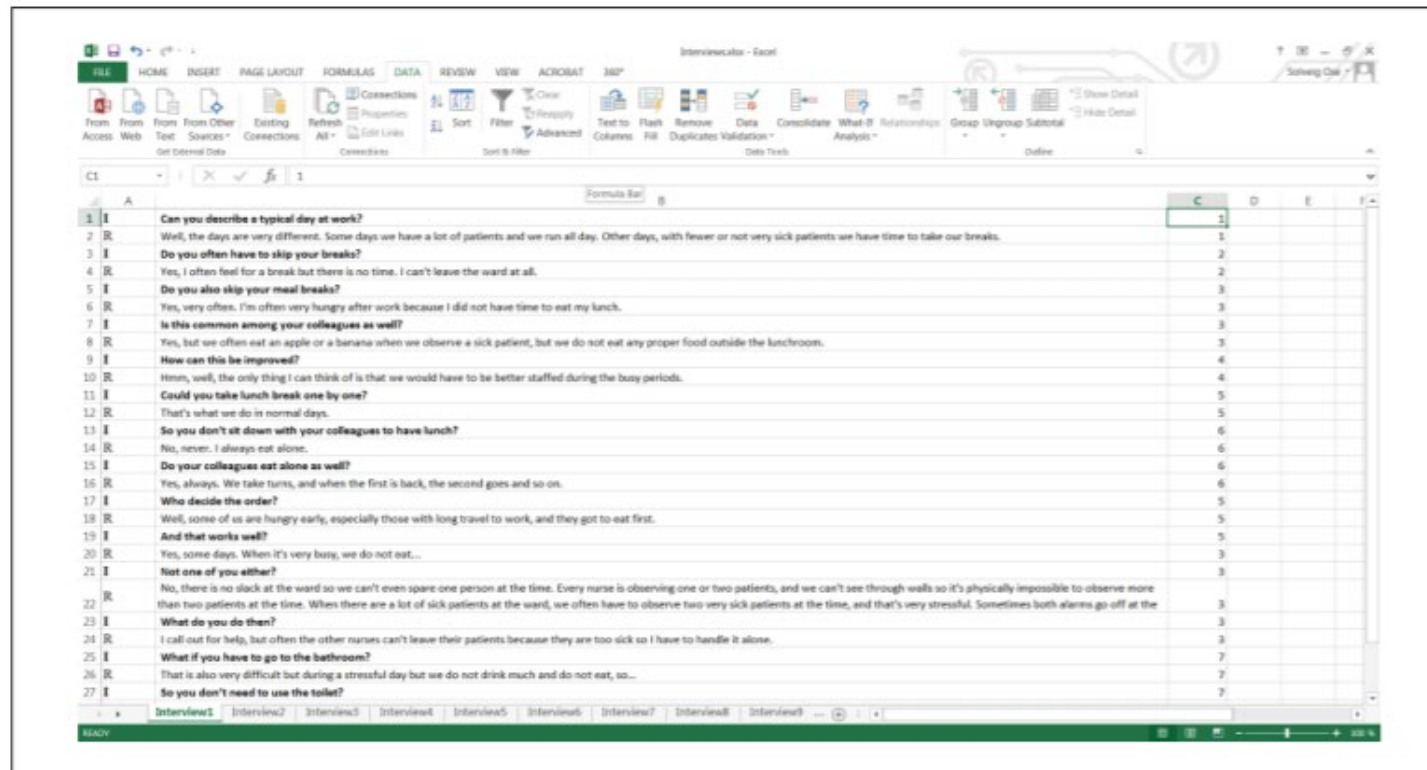


Figure 3. Code in Column C.

Resources

- U of A International Institute of Qualitative Methods Webinars (master class and archives)
 - [Sally Thorne Interpretive Description Webinar April 30](#)
- Shared drive
 - Dfmresearch:\Training and Resources\Knowledge and Skills Builder Sessions\Qualitative Research Skills\What to Know About NVivo A Qualitative Primer
 - This slide deck and handouts
 - Guidelines for Teams Using NVivo
 - Transcription service info
- [NVivo Training Videos](#)

References

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