Qualitative Data Analysis - QDA

Coding workshop further information

There are a number of different approaches to coding qualitative data. I will briefly outline what these are but first it is important to say that the principles are similar. Qualitative data analysis (QDA) usually means that the researcher has conducted interviews in the field and transcribed the interview data into a text file. I personally feel that the transcription process is part of the qualitative researchers' job especially when learning the trade. You need to live and breathe your data. It is important you engage and learn how to do it. As you become more skilled you can almost code data directly as you listen to audio files. However, for evidence supporting claims in your research reports (one of which is your doctoral thesis) it is important that you transcribe text from which you can draw quotes – the evidence.

Qualitative data can of course take other forms apart from text but principally this workshop focuses on how to code textual data gathered through the interviews conducted as part of the fieldwork. Other forms of qualitative data could include: visual material (including photographs and video data), diaries, documents and other data records that the researcher has access to.

When we conduct qualitative research there are a number of key assumptions made such as we recognise respondents as important and give primacy to their words and utterances. Qualitative researchers want to understand meanings of respondents they interview and gain insights to their problems and their worlds.This is why when we code qualitative data we want to use 'invivo' codes i.e. the words of respondents become codes. The assumption here is that we the researchers are part of the process of research and do not stand completely external to the subjects we chose to engage in research. If we took a completely objective view assuming their world separate to ours then we might consider 'invitro' coding. Thus the name of one of the leading software packages for qualitative research is NVivo which is a play on words for Invivo – in their own words. Note: Invitro means in the words of others.

There is nothing magical about coding data. It is a simple practical skill that can be improved with practice. Software packages simply facilitate data storage and manipulation easier when you have lots of data. The principles of coding are exactly the same when you do it manually or when using software.

Codes can be based on:

Themes, Topics

Ideas, Concepts

Terms, Phrases

Keywords

Passages of text are coded by the researcher to search for patterns in the data. These patterns are themes, topics, ideas, concepts, terms, phrases or keywords. Common codes will be applied throughout the text analysis and it may be necessary to combine codes into meaningful groups as the coding proceeds. For example, if in analysing the passage it becomes clear that 'pain' is a theme emerging from discussions that term may be the code applied. As you continue to read the text you will use 'pain' to identify similarities in discussion. Occasionally you may have assigned another code, say, 'soreness' and later you may decide to combine it with pain in a single code. After completing the whole analysis of text you will probably have a number of passages where you have assigned 'pain' as a code. Codes are given meaningful names that indicate an idea or concept that underpins the theme or category emerging from data analysis.

Any parts of the data that relate to a code topic are coded with the appropriate label. This process of coding (associating labels with the text, images etc) involves close reading of the text (or close inspection of the video or images). If a theme is identified from the data that does not quite fit the codes already existing then a new code is created. When you begin the coding process you are free to choose any codes you like to label similar topics. Initially you may assign a number of similar codes and as the process of analysis continues you may choose to combine these codes under one label so as to manage the data more effectively. Thus there is a reductionist process that occurs as your coding develops. You need enough codes to recognise difference but you want to restrict codes to manageable numbers. Codes need to identify the issues contained in the data set.

There are a number of different approaches to performing coding analysis:

A priori codes [invitro]

These can be identified from a range of sources:

- Previous research or existing theories
- Research or evaluation questions you are addressing
- Questions and topics from your interview schedule
- Your 'gut feeling' about the data or the setting

Grounded codes [invivo]

These are codes that emerge from your data. You put aside any preconceptions, prejudices or previous knowledge of the topic and search fro codes in the words of your respondents [invivo codes].

Graham R Gibbs and Celia Taylor at Huddersfield University produced a very good guide, listing what to look for when coding. I have used their list adding some different examples below.

What to look for when you are coding

Most typically, when coding, researchers have some codes already in mind and are also looking for other ideas that seem to arise out of the data. When coding in this second, open minded manner, Charmaz (writing in the grounded theory tradition) suggests you ask the following questions about the data you are coding:

> "What is going on?
> What are people doing?
> What is the person saying?
> What do these actions and statements take for granted?
> How do structure and context serve to support, maintain, impede or change these actions and statements?" (Charmaz 2003: 94-95)

A more detailed list of the kinds of things that can be coded are Table 1 below. The examples of each kind tend to be descriptive because it makes it easier to explain the phenomena. However, when you are coding it is advisable to move from descriptive codes to more analytic ones as quickly as possible. See the discussion in the next section.

NO.	WHAT CAN BE CODED	EXAMPLES
1	Behaviours, specific acts	Seeking reassurance, arguing
2	Events – short once in a lifetime events or things people have done that are often told as a story.	Birthday party, wedding day, dying, new job, starting over
3	Activities – these are of a longer duration, involve other people within a particular setting	Working life, travelling, doing research
4	Strategies, practice or tactics	Crawling to the boss for promotion. Working hard for promotion Staying late at work to get promotion
5	States – general conditions experienced by people or found in organisations	Underachieving – I should be doing a lot better than I am given my qualifications and experience.
6	Meanings – A wide range of phenomena at the core of much qualitative analysis. Meanings and interpretations are important pars of what directs participants actions.	
	a. What concepts do participants use to understand their world? What norms, values, and rules guide their actions	The term "saggar maker's bottom knocker" is used in the pottery industry. Saggars are fireclay boxes that protect pottery in the kiln-firing. While the saggar maker is skilled the 'bottom knocker' is less skilled assembling materials for the bottom of the saggar and knocking it in. Bottom knocker's were often young boys who made the base of the saggar from a lump of fireclay which they knocked into a metal ring using a wooden mallet or mawl (*mow).*
	b. What meaning or significance it has for participants, how	Anger – "He makes me so angry

	do they construe events what are the feelings	the way he treats me"
	c. What symbols do people use to understand their situation? What names do they use for objects, events, persons, roles, setting and equipment?	A PhD is referred to as 'a test of endurance' (because finishing a PhD is a challenge)
7	Participation – adaptation to a new setting or involvement	Join the club "I recently took up walking and I now feel part of the group".
8	Relationships or interaction	Teamwork – "I have to work with Bob but I think he's strange. He is not someone I would naturally to choose as a friend"
9	Conditions or constraints	Sickness "Since I had the illness I have been a lot slower at doing my job. I have to take more time doing things."
10	Consequences	Arguing - "Arguing with the boss nearly lost me my job." Complaining - "I did not respond to her emails quickly enough and she complained about the service."
11	Settings – the entire context of the events under study	Organization, The Park, The hospital, Home.
12	Reflexive – researcher's role in the process, how intervention generated the data	Probing question "How did you feel when he said that?"

Table 1. Types of phenomena that can be coded (Adapted from Bogdan and Biklen, 1992; Strauss, 1987; Mason, 1996; and Gibbs, 2006).

TASK 1

Below I have included a short piece of text from an interview with someone experiencing stress at work. I want you to read the text and then use the descriptive codes given and assign them to the text.

The following descriptive codes are to be used in coding the passage.

Pressure,

Insecurity,

Understanding,

Listening,

Frustration

INTERVIEW EXTRACT

"I have had a torrid tome at work lately everything seems so difficult. The firm is under great pressure to achieve better service levels with a major customer who is threatening to take their business elsehere. As a frontline service employee I am the first line support to the customer. I previously had a very good relationship with my contact in the customer organization until they replaced her with a new employee who has been much tougher to negotiate with. I have also recently been assigned a new manager who I report to in my organization. They don't really understand this business they are used to working in food and not clothing. They have little experience of this industry sector and they are trying to apply their experience to this context which is very different. Furthermore, she does not listen to me but continuously tries to undermine my position with other staff in the section and with the customer organization. I am really getting quite frustrated with the situation and I have tried to move on but times are difficult outside. However, I really don't know how much more of this I can take."

Now repeat the task but this time do not use the descriptive codes given simply make up your own codes and apply them to the text.

Do you have any initial observations regarding this process? What was different coding in your own words to coding in the prescriptive list?

READINGS

To prepare for the workshop I have supplied a number of suggested readings. Firstly, read the article on inductive coding by David R Thomas at the University of Auckland, New Zealand. This article covers some basic ground in relation to what to code adopting an inductive approach (Thomas, 2003). I have included an excellent article by David Partington outlining the Grounded Theory paradigm in which he discusses Strauss & Corbin's paradigm and the types of coding that grounded theorists use (Partington, 2000). The third paper offers a perspective on 'thematic analysis' and discusses differences in the approach from other QDA approaches(Braun & Clarke, 2006). If your work is adopting themes say through case study analysis then this is a useful approach to consider. I also include John Seidl's very good guide to doing QDA which he makes freely available and it would be useful if you familiarise yourself with the approach (Seidle, 1998).

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology 3*, 77-101.

Partington, D. (2000). Building grounded theories of management action. *British Journal of Management, 11*, 91-102.

Seidle, J. V. (1998). Qualitative Data Analysis. Qualis Research.

Thomas, D. R. (2003). A general inductive approach for qualitative data analysis. University of Auckland.