# nine

# ANALYSING QUALITATIVE DATA

This was by far the most difficult chapter of the book for me to write, and it is one of the more difficult chapters to teach. I think there are two main reasons for this.

First, 50 or so years ago, there were basically no established, widely accepted methods for the analysis of qualitative data. This was a major factor in qualitative research having little credibility and respectability at that time. Today, there are multiple methods and the problem is choosing between them. The analysis of qualitative data is the area where there have been most methodological developments in the last 20–30 years. So, whereas the problem 50 years ago was 'no methods', today's problem is 'many methods'. How does the researcher choose among them?

Second, there is now substantial literature on the topic of analysing qualitative data, but much of it is confusing to the beginning researcher because of the different approaches, different terminology and different views of what qualitative analysis means. There is often also some overlap between different approaches (even though different terminology might be used).

In my teaching, I stress that some types of qualitative research bring their own specialist methods of data analysis. A prominent example of this is grounded theory research, which brings with it grounded theory analysis (often summarised as open, axial and selective coding). To me, a grounded theory study requires grounded theory analysis. In the same way, I think that grounded theory analysis should not be used unless one is doing a grounded theory study. I think it introduces inconsistency in a proposal suddenly to state, in the data analysis section, that grounded theory analysis will be used, when nothing earlier in the proposal indicates that grounded theory is involved. Another example of specialist analysis is discourse analysis and a third example is ethno-methodological analysis.

On the other hand, some methods of analysis are much more general and are therefore generally applicable. A very good example of this is the Miles and Huberman approach. I think the approach described by Richards also has the same sort of general applicability.

It is because of this division between specialist methods and more general methods that I have included direct advice on writing the data analysis section of a qualitative research proposal in *Introduction to Research Methods in Education* (2009: 205), and I reproduce it here:

Students writing qualitative dissertation proposals often have difficulty with the section on the analysis of qualitative data. Faced with the many methods available, an effective way to proceed is:

1. Decide whether your project requires a specialized approach to data analysis.This should follow from the way your research and research questions have been framed and developed. For example, a grounded theory study will require grounded theory analysis, a discource analysis will require some type of discource analysis and so on. If it is specialized, the proposal can then go on to describe the type of specialized analysis to be used, with appropriate support from the literature.
2. If a specialized approach is not involved, one of the more general approaches will be useful. (The Miles and Huberman approach is particularly good in this situation.) When identifying and describing the general approach selected, points to include are the basic operations of coding and memoing, and stressing that the data will be analysed not just summarized and described. There are different directions the analysis itself might take – for example, it might be inductive, concerned with conceptualizing the data, or interpretive, concerned with analysing meaning, or thematic and concerned with identifying patterns in the data. In all cases, ensure there is support from the reference literature.
3. In doing either (1) or (2), show how the proposed analysis fits with the overall logic of the research. This helps to make your proposal convincing, by strengthening its internel consistency ana validity. (A common problem is the lack of fit between the data analysis section and other sections of the proposal.)
4. Show also how the analysis will be systematic, well-organized and thorough. This gives the proposal discipline, suggesting an audit trail through the analysis. In this way, you make your proposal more scholarly.

The type of analysis proposed should not be inconsistent with the overall research strategy. On the contrary, it should fit in with this overall strategy. I like to say to my students that there should be no surprises for the proposal (or thesis) reader, whether on data analysis or any other point. I mean by this that a well-constructed proposal (or thesis) leads the reader logically and naturally to each point. So it should be with the data analysis method which is proposed (or which has been used).

A central point to stress early in all of this material is that analysing data means more than just describing and summarising the data. We may well do these things (describing and summarising) as part of the analysis, but they are not the objective of the analysis. Our job is not merely to describe and summarise – it is to analyse. The difficulty lies in deciding which direction things should take after describing and summarising. Some of the possibilities are:

- inductive analysis – the general objective here is to locate, by induction, abstract concepts, concrete and specific examples of which are found in the data. While analytic induction is an older method itself (see section 8.2), some other methods also make heavy use of induction – this applies to both grounded theory and to the Miles and Huberman approach. Indeed, induction is a central concept in all of research, including the analysis of data, and this sort of abstraction

is at the heart of what we mean by 'conceptualising the data'. Whether we use grounded theory or not, this is an indispensable step in theorising. I spend time explaining and discussing the connection between induction (and deduction), and levels of abstraction
- interpretive analysis – the emphasis here is on meanings in the data, and this approach is used especially in symbolic interactionist studies
- thematic and pattern analysis (see Miles and Huberman, especially on pattern coding).

## Coding

I think it is useful to describe to students exactly what the problem is with analysing qualitative data. Thus: 'Imagine that high quality in-depth interviews have been conducted and transcribed, and the student researcher is now faced with many pages of qualitative data. What, exactly, happens next?'

After this introduction, we can zero in on the concrete activity of coding. I describe coding as an 'anxiety-relieving' activity, when the anxious graduate student researcher is faced with the situation just described. Of course, there are different types of coding, depending on the type of analysis being conducted – for example, inductive coding, interpretive coding, thematic and pattern coding. Class time spent on discussing and practising coding – preferably using 'real' data from a present or previous research project – is time well spent. A common danger is that students get to really like doing coding, once they see how it works, and want to do more and more of it. This needs to be countered by stressing that coding is a tool, a vehicle, and not in itself the main objective. In other words, the objective of qualitative analysis is not endless coding.

## Memoing

I think Glaser's advice here sums it up – whenever, in coding, you have an idea relevant to any aspect of the data or of your study (and coding typically stimulates many ideas), stop and write it down. The things you write down are memos and they become a rich source of ideas for future use.

The particular methods and techniques I overview in this chapter are intended to give students an overall picture of some of the main possibilities when it comes to analysing qualitative data. In sequence throughout the chapter, the methods overviewed are:

- analytic induction
- Miles and Huberman – as well as summarising the Miles and Huberman approach to data analysis (very useful for proposal preparation, see above), I strongly recommend the Miles and Huberman book to students. Harry Woolcott is right – the book is a 'treasure trove, a gold mine'. It is impossible to browse this book without getting ideas for analysing one's own data. If a student is 'stuck' with the data analysis, and it is inconvenient for me to discuss the matter there and then with the student, I often recommend spending a couple of hours with Miles and Huberman

- grounded theory analysis
- narratives and meaning
- ethnomethodology and conversation analysis
- discourse analysis
- semiotics
- documentary and textual analysis.

As well as an overview to inform students about the plurality of methods in this area, students will need to read further about and specialise in the method they propose to use in their research.

## Grounded theory analysis

I single this method out for special consideration because, I have found, it seems to create more difficulties for students than other methods, and also because it is at the heart of grounded theory itself (the 'most widely used approach in present day social science').

The first complication is the point made in Chapter 6 – that today grounded theory is not one method but a family of methods. Students need to know which variety of grounded theory they are using and why. Another main complication or difficulty concerns understanding induction, first at the open coding stage and then at the selective coding stage. If time permits, I go right back to simple examples of induction and consider them in detail. I use these examples:

- apple, orange, fruit (in a simple tree diagram)
- carrot, potato, vegetable (in another tree diagram)
- fruit, vegetable, food (in a third tree diagram).

I use these simple diagrams to illustrate different levels of abstraction and the processes of induction and deduction. I also use them to illustrate that when one is doing induction, more than one more abstract concept can be applied. This is most easily seen in the fruit–vegetable example, as shown below:

- fruit, vegetable, food + other possible labels (in a fourth tree diagram).

It is necessary to make this point because the point is at the heart of what is meant by 'open' coding. We are opening up the theoretical possibilities in the data, and, at the same time, keeping our labelling at the more abstract level provisional or open. (These are the reasons the term 'open coding' is used.)

I then take simplified and highly abbreviated versions of the data from the original 'dying studies' by Glaser and Strauss to show how they theorised upwards to the concepts of 'differentiation according to perceived social status', and 'differential dissemination of information', using exactly the same intellectual operation – induction, or raising the level of abstraction – as the simple fruit and vegetable examples shown above.

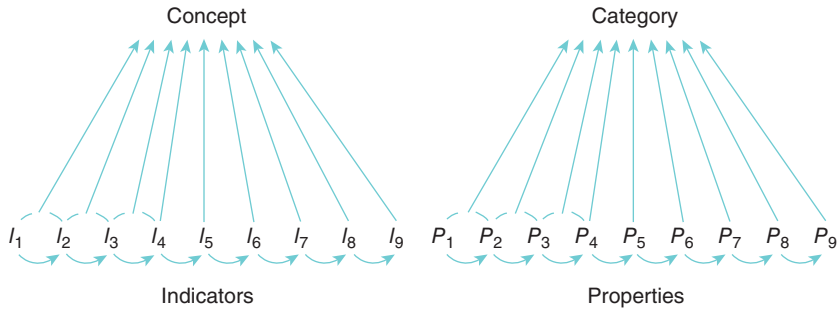


**Figure 9.3 Concept-indicator diagram**

*Source*: Glaser, 1978: 62

This is open coding. Then I connect the abstracted concepts, using connections observable and present in the data, in axial coding. All of this leads into the diagram shown in Figure 9.4.

Again, if time permits, it is good to practise some grounded theory coding with real data. There are examples in the literature, but using students' own data is often more realistic. I stress Strauss's point made to me in conversation – this sort of analysis is a skill and, like any skill, it improves with practice. (His actual words to me were: 'I'm getting better at this all the time' – this, after he'd been doing it for 30+ years!) The advice of Glaser and Strauss to do this sort of coding in groups, if possible, is also valuable.

When students start to practise grounded theory coding, a common problem is that they get concerned with interpreting and with finding and making meaning in the data. This might be fine for an interpretivist study, but it is not grounded theory. Grounded theory coding is centrally concerned with finding abstract concepts grounded in the data. (Hence the central grounded theory analysis question: What is this piece of data an example of?)

The other great benefit to doing grounded theory coding in groups (of like-minded students) is to build in a cross-check to the danger of bringing concepts (or theory) to the data, rather than having concepts and theory emerge from the data. I have found that students are quick to spot when this is happening. Taking Anselm Strauss's advice, I used to run grounded theory practice coding sessions with groups of 6–8 students. For each session, one student would lead the analysis, preferably working with his/her real thesis data, but the rest of us would have had the data a few days in advance of the session. These sessions were extremely valuable, and students regularly commented on how useful (and enjoyable) they were.