

**From: *Research Methods in Education*. By Louis Cohen, Lawrence Manion and Keith Morrison, 2007.**

### **Introduction to Qualitative Data Analysis**

Qualitative data analysis involves organizing, accounting for and explaining the data; in short, making sense of data in terms of the participants' definitions of the situation, noting patterns, themes, categories and regularities. This chapter discusses several forms of qualitative data analysis. Chapter 23 focuses more specifically on content analysis and grounded theory. We deal here with different approaches to qualitative data analysis.

There is no one single or correct way to analyse and present qualitative data; how one does it should abide by the issue of *fitness for purpose*. Further, qualitative data analysis, as we shall see here, is often heavy on interpretation, and one has to note that there are frequently multiple interpretations to be made of qualitative data – that is their glory and their headache! In abiding by the principle of *fitness for purpose*, the researcher must be clear what he or she wants the data analysis to do as this will determine the kind of analysis that is undertaken. The researcher can set out, for example:

- to describe
- to portray
- to summarize
- to interpret
- to discover patterns
- to generate themes
- to understand individuals and idiographic features
- to understand groups and nomothetic features (e.g. frequencies, norms, patterns, 'laws')
- to raise issues
- to prove or demonstrate
- to explain and seek causality
- to explore
- to test
- to discover commonalities, differences and similarities
- to examine the application and operation of the same issues in different contexts

The significance of deciding the purpose is that it will determine the kind of analysis performed on the data. This, in turn, will influence the way in which the analysis is written up. The data analysis will

also be influenced by the kind of qualitative study that is being undertaken. For example, a biography and a case study may be most suitably written as descriptive narrative, often chronologically, with issues raised throughout. An ethnography may be written as narrative or stories, with issues raised, but not necessarily conforming to a chronology of events, and including description, analysis, interpretation and explanation of the key features of a group or culture. A grounded theory and content analysis will proceed through a systematic series of analyses, including coding and categorization, until theory emerges that explains the phenomena being studied or which can be used for predictive purposes.

The analysis will also be influenced by the number of data sets and people from whom data have been collected. Qualitative data often focus on smaller numbers of people than quantitative data, yet the data tend to be detailed and rich. Researchers will need to decide, for example, whether to present data individual by individual, and then, if desired, to amalgamate key issues emerging across the individuals, or whether to proceed by working within a largely predetermined analytical frame of issues that crosses the individuals concerned. Some qualitative studies (e.g. Ball 1990; 1994a; Bowe *et al.* 1992) deliberately focus on individuals and the responses of significant players in a particular scenario, often quoting verbatim responses in the final account; others are content to summarize issues without necessarily identifying exactly from whom the specific data were derived. Later on here we discuss methods to be used with respect to people and issues.

Some studies include a lot of verbatim conversations; others use fewer verbatim data. Some researchers feel that it is important to keep the flavour of the original data, so they report direct phrases and sentences, not only because they are often more illuminative and direct than the researchers' own words, but also because they feel that it is important to be faithful to the exact words used. Indeed, as reported in the example later, direct conversations can be immensely rich in data and detail. Ball (1990) and Bowe *et al.* (1992) use a lot of verbatim data, not least because those whom they interviewed were powerful people and justice needed to be done to the exact words that they used. By contrast Walford (2001: 92), commenting on the 'fetish of transcription', admits that he 'rarely fully transcribed more than a few interviews for any of [his] research studies', not least because of the time that it took for transcription (Walford suggests a ratio of five to one – five hours to transcribe one hour of interviews, though it can take much longer than this).

At a practical level, qualitative research rapidly amasses huge amounts of data, and early analysis reduces the problem of data overload by selecting out significant features for future focus. Miles and Huberman (1984) suggest that careful data display is an important element of data reduction and selection. 'Progressive focusing', according to Parlett and Hamilton (1976), starts with the researcher taking a wide angle lens to gather data, and then, by sifting, sorting, reviewing and reflecting on them,

the salient features of the situation emerge. These are then used as the agenda for subsequent focusing. The process is akin to funnelling from the wide to the narrow.

At a theoretical level, a major feature of qualitative research is that analysis often begins early on in the data collection process so that theory generation can be undertaken (LeCompte and Preissle 1993: 238). Researchers should set out the main outlines of the phenomena that are under investigation. They should then assemble blocks or groups of data, putting them together to make a coherent whole (e.g. through writing summaries of what has been found). Then they should painstakingly take apart their field notes, matching, contrasting, aggregating, comparing and ordering notes made. The intention is to move from description to explanation and theory generation (LeCompte and Preissle 1993: 237 – 53).