Glaser (1992) links this sensitivity more overtly with theory building, arguing that it is the ability to generate concepts from the data and to relate them, according to normal models of theory. This sensitivity stems from a number of sources.

- The literature, which helps highlight issues and what might be important and unimportant.
- The professional experience of the researcher, showing what is important in the field of research chosen, and how things work, allowing events to be more clearly understood and interpreted.
- Personal experience, including experience in research, which can facilitate the making of comparisons.
- The analytical process itself, which can provide insights into the meaning of the data.

Theoretical sensitivity is a way of ensuring that the creativity involved in qualitative research is harnessed in such a way that the interests of science are not impeded. The process of scientific inquiry is further facilitated if the researcher is willing to 'step back from the data' and ask basic questions such as: do the data really fit the hypothesis? This is part of the process of maintaining a healthy scepticism and realizing that all elements of a study – hypotheses, concepts, questions, theories, etc. – are provisional. Strauss and Corbin (1998) advise that a sound approach is to alternate between collecting and analysing data. Through this approach, analysis can allow for further
questions to emerge, for sample selection and data collection, and the verification of hypotheses as they are being developed.

**Concluding grounded research**

As we have seen, grounded theory research can involve a fairly continuous iteration between data collection and analysis and between the different levels of coding. So, when is the research completed? When is it time to stop? Glaser and Strauss (1967) suggest that this is when the level of ‘theoretical saturation’ is reached. By this they mean the non-emergence of new properties, classes, categories or relationships from the data. Knowing when this point is reached, of course, is a matter of experience and judgment. This decision is helped if the research has moved towards the clear identification of core categories (around which the main story line is woven) and peripheral categories of less central significance. Hence, once the analysis has been integrated around the core categories and an adequate theory has emerged, the research could be said to be complete. Note that Bryman (2007a) cautions that grounded theory may be effective in the generation of concepts, but he questions whether it actually produces theory itself.

Before finishing this section, it might be useful to look at grounded theory in relation to other research approaches. Locke (2001), for example, suggests that grounded theory has much in common with:

- Ethnography, in that data collection and theory building are woven together as the researcher progresses (although grounded theorists are less interested in the cultural aspects of contexts).
- Case studies, in that grounded theory may be incorporated into a case study as a means of handling and interpreting data.
- Action research (see Chapter 12), in that both seek to develop theoretical elements that are useful to practitioners within the research setting (although grounded theorists are less concerned with organizational transformation).

**OTHER APPROACHES TO QUALITATIVE ANALYSIS**

In a sense, having discussed two of the main analytical approaches, content analysis and grounded theory, we are left with the category of ‘other’ in which there are a considerable number of competing approaches. Three of the most significant, the use of narratives, conversational analysis and discourse analysis, are discussed, briefly, here.
NARRATIVE ANALYSIS

One of the criticisms of content analysis, and particularly of grounded theory approaches, is that they lead to the fragmentation and decontextualization of data away from the social processes they are meant to represent. However, research that encourages the use of oral or life histories, or uses unstructured interviews, often elicits qualitative data in the form of narratives or stories that lead to more holistic data right from the start. Using narratives is an ideal way of capturing the lived experiences of participants and has been used extensively in settings such as research into medical illness, the study of traumatic events, in education, and studies in the life of organizations. Massey (1998), for example, shows how people’s narratives can be used to explain the contradictions, confusions and complexities of working within a modern organization, and how this can illuminate how both individuals and their organizations function. The analysis of narrative data is also sensitive to the temporal sequence that people inject into the accounts of their lives or events that surround them (Bryman and Bell, 2007).

While different approaches to the analysis of narratives have been put forward, all have a number of common characteristics. First, the text is viewed in the gestalt, that is, within the context and social situation in which it is created. Next comes the formal analysis of the text, including making distinctions between text that constitute narrative passages, and other forms of text. Where researchers generally differ is in their attitude to the status of the text itself. While some take the ‘truth’ of the narrative at face value, others see narratives as a special way of constructing events, that is, they are ‘social constructions located within power structures and social milieux’ (Punch, 2005: 223). In the context of research within organizational settings, narratives bring forth a variety of perspectives and viewpoints, some of which may contradict and contest each other. From a postmodern perspective, the analysis and interpretation of these narratives itself constitutes a narrative, which may be more or less compelling than other interpretations.

CONVERSATIONAL ANALYSIS

Conversational analysis is interested in the formal analysis of everyday conversations (Plick, 2006). Primarily, this includes the analysis of natural texts (often the results of transcribed tape recordings) and seeks to specify the formal principles and mechanisms with which participants express themselves in social interactions, or what Hutchby and Wooffitt (1998) term talk-in-interaction. Research in conversational analysis was originally limited to the study of everyday conversations such as telephone calls or family conversations, but has been extended to institutional-based conversations such as courtrooms, meetings and various kinds of interviews.

Conversational analysis is less concerned with the formal analysis of language per se, than with elements of social interaction such as ‘turn taking’ or ‘opening
up closings', interruptions and the distribution of speaking rights, often in relation to various aspects of an institution's functions (Haye, 1999). Hence, conversational analysis is very much focused on the issue of context. Meaning or order in conversation can only be understood within the context of local practices and are embedded within concrete contexts. Through turn by turn analysis and the description of conversations, the researcher is able to sense how social order among participants is accomplished (Samra-Fredericks, 2004).

**DISCOURSE ANALYSIS**

The focus of discourse analysis is on how both spoken and written language is used in social contexts. Attention is given to the structure and organization of language with an emphasis on how participants' versions of events are constructed. In contrast to content analysis, discourse analysis rejects the view that language is a transparent medium which merely reflects 'reality'. Analysis becomes focused on recognizing the regularities in language in terms of patterns and repertoires. These repertoires (constructs) do not emanate from the individual as such, but are embedded in culturally and socially constructed situations.

**QUALITY IN QUALITATIVE ANALYSIS**

In Chapter 7 we explored how rigour can be enhanced at the design stage. Here we examine how quality can be improved at the data analysis and data presentation stages, looking once more at the themes of validity and reliability.

**VALIDITY**

Validity refers to whether a researcher is observing, identifying or measuring what they claim they are (Mason, 2002). External validity refers to the degree to which findings can be generalized to other social or organizational settings. As was noted in Chapter 7, this is difficult to achieve in qualitative research due, in large part, to the tendency to use case studies and small samples. Internal validity refers to whether there is compelling evidence that the researcher has achieved a strong link between their evidence and the theoretical ideas they develop from it. Table 18.4 summarizes a range of techniques through which the researchers can seek to enhance the internal validity of their results.

Member checking can involve getting respondents to review transcripts of their interviews both for accuracy and to see if there are any comments they would like to add. This can even include getting participants to comment on coding schemes. Expert checking, as the name implies, involves obtaining the collaboration of research or other experts in validating and approving the analysis. Does the expert, for example, using the same data, come to the same
Table 18.4
Techniques for demonstrating validity at the analysis and presentation stages

Source: Adapted from Whittemore et al. (2001)

<table>
<thead>
<tr>
<th>TYPE OF TECHNIQUE</th>
<th>TECHNIQUE</th>
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<tbody>
<tr>
<td>Analytic</td>
<td>Member checking</td>
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<tr>
<td></td>
<td>Expert checking</td>
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<tr>
<td></td>
<td>Exploring rival explanations</td>
</tr>
<tr>
<td></td>
<td>Writing memos</td>
</tr>
<tr>
<td></td>
<td>Testing hypotheses in data analysis</td>
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<tr>
<td></td>
<td>Analysing negative cases</td>
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<tr>
<td></td>
<td>Performing a literature review</td>
</tr>
<tr>
<td>Presentation</td>
<td>Providing an audit trail</td>
</tr>
<tr>
<td></td>
<td>Providing evidence that supports interpretations</td>
</tr>
<tr>
<td></td>
<td>Acknowledging the researcher's perspective</td>
</tr>
<tr>
<td></td>
<td>Providing thick descriptions</td>
</tr>
</tbody>
</table>

or similar conclusions? Are there rival explanations that have been overlooked? Writing memos both for themselves and for others to review, helps in the generation and checking of concepts and categories. As we saw earlier in this chapter, analytic induction makes use of hypotheses as part of the process. Deciding whether the weight of evidence supports or requires us to reject a hypothesis is a useful way of determining whether claims made for the data analysis are valid or not. Analysing negative or deviant cases can be important here, as they may require the hypothesis to be reformulated and more evidence collected, or the hypothesis to be reformulated so as to exclude the deviant case (as in analytical induction, above). Finally, performing a literature review, allows for the findings of the research study to be compared and contrasted with what previous studies or experts have found.

Validity can be catered for at the data presentation stage through providing an audit trail from the analysis back to the concepts, constructs or data sets from which they were generated. In this way, other researchers can confirm that the analysis is based upon appropriate evidence. If, before this is done, the original researchers make explicit their own philosophical perspectives and intentions, then the task of validators is made much easier. The same goes for 'thick descriptions' through which we not only describe a phenomenon but the context in which it occurs. Providing context encourages more confidence that the interpretations that have been made are valid.
Activity 18.2

Examine the list in Table 18.4. Which of them would you find useful to implement to aid the validity of your own qualitative research?

RELIABILITY

External reliability is the extent to which the findings of a study can be replicated, frequently a challenge in qualitative research which often deals with unique social settings or cases. It is both for epistemological as well as practical reasons that some adherents of qualitative research regard external reliability as either unattainable, unnecessary, or both. Internal reliability is improved by the use of more than one observer in the field, or at the analysis stage when multiple researchers are used in the interpretation of the findings. This often starts with researchers sharing and comparing coding schemes to determine the extent of agreement and consistency. The use of computer-assisted programs for qualitative data analysis (see the following section) often help here. Also recall the discussion in Chapter 7 where some researchers reject this approach to rigour, arguing for criteria such as transferability, dependability, confirmability and credibility.

One element of qualitative analysis, conversational analysis, brings with it some different reliability issues. Since conversational analysis is often based on tapes and transcripts of conversations, in terms of reliability, it is fairly obvious that taped conversations will tend to present more reliable evidence than hastily written field notes. But as Peräkylä (2004) warns, video- or audio-recording of events may lose some important aspects of social interaction. These reliability problems include:

- **Time**: A single recording of events taking place in an organization may be either unenlightening or completely misleading if those events do not represent what typically happens most of the time. Hence, reliability will be improved with a more longitudinal research design, with multiple visits and recordings.

- **‘Ambulatory events’**: That is, the movements of people that simply do not show up on video or audio recordings. One solution is the setting up of multiple cameras to catch these movements.

- **Documentary realities**: Some conversations (for example, professional people such as doctors or lawyers talking to their clients) may be influenced by the documents (such as forms) they are discussing. Researchers must have access to these documents and include them in the analysis process.
USING COMPUTER-ASSISTED PROGRAMS

Before the arrival of computer-assisted qualitative analysis programs, researchers had to perform a quite laborious process of writing marginal codes on field notes or transcripts, making photocopies of these documents and physically cutting chunks of text associated with a particular code and pasting them together. Over the last 20 years, or so, computer-assisted qualitative data analysis software (CAQDAS) has made this redundant. Typically, CAQDAS software allows the researcher to:

- Import transcripts or other computer-generated documents directly into the program.
- Work through the data, marking words, phrases or sections of text with codes.
- For each code, collect together all the chunks of text associated with that code.

It is important to note what CAQDAS programs do not do. They do not generate codes for you – this, obviously is the task of the researcher. The researcher still also has to interpret the data. But CAQDAS software does cut out much of the drudgery of manipulating qualitative data. Yet in doing this, there can be drawbacks. Richards, for example, warns of the danger of ‘coding fetishism’ (2002: 269). Since computers can code so easily, the novice researcher can easily get ‘hooked’ on coding so that it becomes an end in itself. Coding, then, comes to drive out the need for interpretation. What is essential is that researchers move beyond the ‘search-and-retrieve’ functionality of CAQDAS programs. Certainly, such programs are very effective at doing this and it is an important function. But, as Richards (2002) points out, CAQDAS also provides you with the opportunity to retrieve all the data on a coded theme, to browse the data, and, if necessary, to recode it, or explore it against new dimensions. Hence, coding becomes an iterative, creative process, not something that is just done once and halted. The following case study provides an illustration of how one CAQDAS market leader, NVivo, was used in the analysis of qualitative data. Note that the intention here is not to provide you with a tutorial on how to use NVivo itself (there are many of these available on the Web and elsewhere), but to demonstrate the process of using a CAQDAS program in analysing raw data.

CASE STUDY 18.3  CODING WITH NVIVO

A study was undertaken which explored the kinds of criteria business leaders apply when choosing the people they employ as executive coaches. A literature review had identified the possibility that male and female executives might employ different criteria when making this choice. Thirty interviews
were conducted, the tapes transcribed and the Word files imported into NVivo.

The first stage in the analysis process was the construction of nodes. A node in NVivo is used to represent a code, theme or idea about the data. NVivo offers a number of different nodes, including free nodes, tree nodes and case nodes. Free nodes are free-standing and are not associated with a framework of themes or concepts. At the start of the coding process free nodes were used because it was not clear how codes related to each other. However, later this became clearer and free nodes were converted into tree nodes. Tree nodes are codes that are organized in a hierarchical structure of related themes. Case nodes are used to store information about a case, which might include data from interviews, field notes or focus groups. Codes can be a priori, based upon themes that have emerged from the literature search, or in vivo, emerging from a reading of the text. For this project, the nodes created from previous reading comprised a number of attributes that other research studies had revealed as potentially important: qualifications, experience, career development and coaching skills (including sub-themes such as empathy, ability to set objectives and career development skills). However, on reading the text, several respondents (both men and women) mentioned that they had deliberately chosen female coaches. Hence, gender was added as a node.

An interactive and iterative process then took place, applying existing nodes to the data and creating new nodes from the data. For example, several respondents mentioned either a strong like or strong dislike for coaches who were experts in Neuro-linguistic programming techniques – NLP was therefore added as a node. Further exploration of the data then led to some nodes being modified or even eliminated. For example, the node ‘career development’ which came from the mentoring literature was not mentioned by these beneficiaries of coaching and was abandoned. As each node was created, a memo was written which described and explained the node and added some preliminary thoughts or ideas about the node and relationships within the data. These memos became part of the data analysis. A series of attributes (variables) were then added to each case node, including the gender of each respondent, their age and the industry sector they worked in.

The next stage in the process involved querying the data. Since it was suspected that male and female coaches may have different attitudes towards the selection of coaches, a coding query was run on the attribute ‘male’ and then on ‘female’. A more sophisticated query was then used...
which added a second attribute, age, making it possible to explore the data for the views of young and older women and then young and older men. Queries were then run on attitudes towards coaches with expertise in NLP. Two nodes had previously been created, ‘Likes NLP’ and ‘Dislikes NLP’. The results of each query were then saved as nodes. Following this creative process of creating nodes and running (and saving) queries on the data, allowed for the testing out of ideas about the potential relationship between variables and for the development of at least provisional theories.

Activity 18.4

Explore some of the tutorials on NVivo at the following websites:
- www.sagepub.co.uk/ichardi/pdf/Tutorial_1.pdf
- www.qsinternational.com/support/tutorials.aspx/productid=

TOP TIP 18.3

Should you use a CAQDAS program or not? The answer probably rests on the amount of qualitative data you are trying to analyse. All software programs come with a built-in overhead - the amount of time and effort you need to learn them to a sufficient level of proficiency. If, say, you have conducted 10 one-hour interviews, generating about 40 pages of transcripts, you could probably conduct a manual analysis, using the approach discussed in 'Elements of qualitative data analysis' above. If, however, you feel that the amount of data generated is substantial and fairly overwhelming, then by all means make use of NVivo or a similar program. Learning a CAQDAS program will also give you a useful research skill for the future.

ON THE WEB 18.1

Evaluate the wide range of software packages for qualitative analysis at the following websites:
http://caqdas.soc.surrey.ac.uk/index.htm
http://www.scolari.co.uk/
possible to explore the id then young and older s coaches with expertise ated, ‘Likes NLP’ and e then saved as nodes. and running (and sav- out of ideas about the the development of at.

SUMMARY

- Qualitative data can have a quality of ‘undeniability’ because they are rooted in the natural context of field settings.

- The main focus of qualitative analysis is to understand the ways in which people act and the accounts that people give for these actions.

- Approaches to qualitative data analysis include content analysis and grounded theory. Content analysis involves locating classes or categories within the data. These categories are usually derived from theoretical models. In contrast, grounded theory uses a process of open, axial and selective coding to develop categories and theories inductively from the data.

- Due to the lack of non-probability sampling methods, qualitative analysis is open to accusations of invalidity. However, claims for the validity of results can be strengthened, for example, by eliciting the views of research participants.

- The reliability of qualitative research can be strengthened by using multiple cases, or by supporting assertions using numerous examples, or by verifying the analysis using other researchers. Concepts such as credibility, authenticity, honesty and openness are also important in qualitative research.

- CAQDAS programs provide useful functionality for qualitative data coding and analysis. But before embarking on the process of learning a program, make sure that the quantity of data requiring analysis justifies the expenditure of time.

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SUMMARY OF WEB LINKS

http://caqdas.soc.surrey.ac.uk/index.htm

http://www.scolari.co.uk/

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FURTHER READING


array of qualitative techniques that are dealt with only sparingly by many of
the standard texts. Subjects include: life histories, critical incident
techniques, qualitative research diaries and pictorial representation.

Kingsley. A book in which the author uses a range of personal narratives to
show how reflexive research works in practice.

Provides a detailed summary of the evolution of grounded theory, and
illustrates how it can be applied in a management and organizational
context.

all the major theories and methods of qualitative research design, including
some less well known approaches such as the use of personal narratives.

London: Sage. A valuable introduction to some of the principles of using
computers in qualitative research as well as a practical guide to managing
data and coding categories.

qualitative analysis methods.