

GROUNDING THEORY AND ITS APPLICATION IN A RECENT STUDY ON ORGANISATIONAL REDESIGN: SOME REFLECTIONS AND GUIDELINES

JOHANN BURDEN

GERT ROODT

grootd@uj.ac.za

*Programme in Leadership in Performance and Change
Department of Human Resource Management
University of Johannesburg*

ABSTRACT

In this article an overview of qualitative research, the origin of grounded theory, its different schools and relationship with substantive theory are provided. The researcher also considers whether "grounded theory" implies theory only or includes other building blocks of science, how grounded theory is applied in management and leadership studies abroad and in the Republic of South Africa. He describes how his interest in organisational downsizing led to the study. Finally, he introduces a "roadmap" for grounded theory in a South African information technology company and offer some suggestions for future studies.

Key word: Grounded theory, downsizing, redesign, South African IT Company

CONTEXT OF THE PRESENT STUDY

The researcher joined a JSE-listed company in the information technology sector (ITC) during 1995 as Group Executive: Human Resources. In the course of 1997 this company merged with another South African ITC company. At the time of the merger, the new entity had approximately 6 500 employees. As part of the integration process, the company had to rationalise its operations by eliminating duplication that arose. The rationalisation necessitated a large-scale retrenchment. Hence the researcher was tasked by the Executive Committee to design a downsizing process that would minimise economic and legal risks. At the time the international social science literature provided no guidance on the issue. This resulted in the company depending on its own expertise to design the process.

During 2002 the company decided to revise its restructuring process and accompanying policies by aligning these with the Labour Relations Act 1995, as amended in 2002. However, it was not possible at the time to base the restructuring on sound social science research. To consolidate the company's apparently successful intervention, it was necessary to subject it to social science scrutiny and to construct a scientific process that could also be used by other local companies, given that downsizing was a recurring but poorly understood phenomenon. Donald (1995) was the only local scholar who had developed a retrenchment process, but it was not aligned with the amended Labour Relations Act 1995. This scenario led the researcher towards the end of 2004 to undertake empirical research and a doctoral study to create a model for organisational redesign.

The researcher decided to develop a roadmap of how he needed to apply grounded theory in this study. This roadmap will now be discussed in this article.

According to Schurink (2004b, p. 14) qualitative research stems from a largely anti-positivistic, interpretive approach that is ideographic, holistic, and typically aiming at understanding social life and the meanings people attach to it. This research style resulted from social science scholars questioning the legitimacy of the "scientific method" (see Ritchie & Lewis, 2004, p. 8). These authors further concluded that practitioners of qualitative research came to emphasise and value the human interpretive aspects of exploring the social world and the significance of one's own interpretation and understanding of the phenomenon under study (Ritchie & Lewis, 2004).

Denzin and Lincoln (2003, pp. 4-5) provide the following workable definition of qualitative research: "a situated activity that locates the observer in the world, consisting of a set of interpretive, material practices making the world visible and then turning it into a series

of representations, including field notes, interviews, conversations, photographs, recordings and memos to the self". "As such qualitative research is an interpretive, naturalistic approach to the world" (Guba & Lincoln, 1994, p.108). This implies that qualitative researchers study phenomena in their natural settings so as to make sense of or interpret them in terms of the meanings people bring to them. In doing this, qualitative researchers typically use a variety of empirical tools. These include case studies, personal experiences, introspections, life stories, interviews, artefacts, cultural texts and productions, observational, historical, interactional and visual texts, all of them describing routine and problematic moments and meanings in individuals' lives. For them each of these practices makes the world visible in a different way. Hence they use more than one interpretive practice in any study (Schurink, 2004c, p. 5). One practice that has become very important in qualitative research, generally and organisational studies particularly, is grounded theory.

GROUNDING THEORY

Schurink (2004d, p. 2) believes that grounded theory is a particular inductive approach consisting of a systematically developed set of procedures and techniques to devise a theoretical concept about the life world of some selected group of people who form part of a particular social reality. As such this approach is primarily based on the subjective experiences of humans and comes about while one gathers data.

Strauss and Corbin (1990, p. 23) define grounded theory as one that is inductively derived from the study of the phenomenon it represents. In other words, it is discovered, developed and provisionally verified through systematic collection and analysis of data on a particular phenomenon. Therefore, data collection, analysis and theory are in a reciprocal relationship with one another. One does not begin with some theory and then prove it. Rather, one begins with an area of study and allows whatever is relevant to that area to emerge. Potter (1996, pp. 151-152) refers to grounded theory as an analytical technique that directs researchers to look for patterns in data so that they can develop general statements about the phenomenon examined. The process follows inductive reasoning, looking for patterns across individual observations and then arguing for those patterns that have the status of general explanatory statements.

According to Goulding (2002, pp. 38-43) grounded theory can be traced to symbolic interactionism, the origins of which lie in the work of Charles Cooley (1864-1929) and George

Herbert Mead (1863-1931). The concern of these scholars was to avoid the polarities of psychologism and sociologism, the former assuming that social behaviour is explicable in genetic terms and by logical or neurological processes and the latter assuming that personal conduct is in some way programmed by societal norms. Bryman and Bell (2007) are of the opinion that symbolic interactionism individuals engage in reflective interaction rather than respond intuitively to the environment. People are purposive in their actions, and act and react to environmental cues and objects according to the meaning these hold for them. These meanings evolve from social interaction, which itself is symbolic because of the interpretations attached to the various forms of communication, such as gestures, facial expression and the significance of objects.

Bryman and Bell (2007) believe that symbolic interactionism is both a theory of human behaviour and an approach to inquiry into human conduct and group behaviour. A principal tenet is that humans come to understand collective social definitions through socialisation. Hence the notion of symbols is intrinsic to this perspective. Social life is expressed through symbols, which include language, the most powerful of all. Classic symbolic interactionism is a micro theory, as it does not deal with the larger questions of the shape of society. Further, this classic tradition utilises participant observation to identify power imbalances. The research itself usually takes the form of field studies in which the researcher observes, records and analyses data obtained in a natural setting.

Based on the principles of symbolic interactionism, two American scholars, Glaser and Strauss (1967), developed a pretty defined and systematic procedure for collecting and analysing qualitative data. They labelled it 'grounded theory' to reflect the source of the developed theory, which is ultimately the behaviour, words and actions of those under study. They both believed in (1) the need to get out in the field if one wishes to understand what is going on; (2) the importance of grounded theory in studying reality; (3) the continually evolving nature of experience in the field for the subjects and the researcher; (4) the active role of persons in shaping the worlds they live in through the process of symbolic interaction; (5) continuous change and process and the variability and complexity of life; and (6) the interrelationship between subjects' meanings and their actions (Glaser, 1992, p. 16).

Grounded theory, in contrast to theory obtained by logico-deductive methods, is grounded in data that have been systematically obtained through social research. The main thrust of this is to bridge the gap between theoretically uninformed empirical research and empirically uninformed theory (Goulding, 2002, p. 41). It may also be argued that, like many qualitative methodologies, grounded theory carefully and systematically studies the relationship between individuals' experience, society and history (Goulding, 2002).

Locke (2001, p. 37) believes that in the grounded theory approach, the line of investigative action concerns the development of concepts by composing categories and delineating ways in which the categories relate to each other. It is through this inductive process that meaning in the social world is invested through the process of conceptualisation (Schurink, 2004b).

Utilising the grounded theory tradition, the process of analysing data, is an inductive process using coding. The implicit constant comparison process is continued until theoretical saturation is reached, where no further data fits into the concepts and categories. When this is achieved, a theoretical framework is generated with the help of interpretive procedures, and well developed systematically related categories are derived through statements of relationship, prior to being described in the narrative (Locke, 2001).

It is important to note that the process of data collection and analysis is a continuous one that will stop only when this iterative process has reached saturation. At this point additional data collected does not add any new information to the study findings (Locke, 2001).

The characteristics of a dependable grounded theory analysis, that yields in-depth understanding and knowledge, according to Haig (1995) is **firstly** inductively derived from the data. **Secondly**, it is subjected to theoretical elaboration and **finally**, that it is judged as adequate within the research field with respect to a number of evaluative criteria. According to Haig (1995), these evaluation criteria, all mentioned by Glaser and Strauss (1967), include clarity, consistency, parsimony, density, scope, integration, explanatory power, predictiveness, and most importantly, application.

Most authors divide data analysis into two main activities in the analytical process. The **first activity**, Ritchie and Lewis (2003, p. 219) refer to as data management¹, which involves making sense of data through *descriptive* or *explanatory* accounts. Similarly Mason (2002) and Bogdan and Biklen (2007) refer to this more specifically as organising and indexing the outputs of the 'products' of data collection. The **second activity**, referred to by Bogdan and Biklen (2007) and also by Mason (2002), is interpretation, which is the task of making generalisations about the wider reality. All three authors agree that the differentiation is however not clear-cut. It is practical to differentiate the activities that are associated with each in order to gain understanding in terms of how they might be applied. Without data organisation and management, it will be difficult to make sense of, or to interpret the data. Data management should therefore precede explanatory accounts and argument building.

Grounded theory clearly evolves during the research process and is a product of continuous interplay between analysis and data collection. It requires the recognition that inquiry is always context-bound and that facts should be viewed as both theory laden and value laden. Knowledge is seen as actively constructed, with meanings of existence being informed by the experiential world. The approach is most commonly used to generate theory where little is known, or to provide a fresh slant on existing knowledge. The researcher typically works in the situation in which the action takes place, thus natural situations, in order to analytically relate informants' perspectives to the environments in which the perspectives emerged (Baszanger, 1998, p. 354). The ultimate goal of the grounded theory researcher is to develop theory that goes beyond "thick description"² (Geertz, 1973).

Strauss and Corbin (1998, p. 22) are of the opinion that, however illuminating or even 'revolutionary' the idea of theorising is, developing an idea into theory still necessitates that it be explored fully and be considered from many different angles or perspectives. It is also important to follow through with the implications of a theory. Those formulations and implications lead to "research activity" that entails making decisions about and acting in relation to various questions throughout the research process – **what, when, where, how, who** and so on. Also, any hypotheses and propositions derived from the data must be continuously "checked" against incoming data, and then modified, extended or deleted as required. According to Glaser and Strauss (1968, p. 3) the developed theory should (1) enable prediction and explanation of behaviour; (2) advance sociology theory; (3) apply to practice; (4) provide a perspective on behaviour; (5) guide research on particular areas of behaviour; and (6) provide clear categories and hypotheses so that crucial ones can be verified by research.

¹ Data Management involves generating a set of themes and concepts according to which the data are labeled, sorted and synthesized. Initially these themes and concepts should remain close to participants' own language and understandings, though later these may be replaced by more abstract analytical constructions (Ritchie et al, 2003, p. 214). ² The term was devised by Geertz "to refer to detailed accounts of a social setting that can form the basis for the creation of general statements about a culture and its significance in people's social lives" (Bryman, 2004, pp. 544-545).

Different grounded theory schools

Grounded theory split into two camps, each subtly distinguished by its own ideographic procedures. Whereas Glaser (1978) stresses the interpretive, contextual and emergent nature of theory development, the late Strauss appears to have emphasised highly complex and systematic coding techniques. Strauss and Corbin (1990) exemplify this rupture with their presentation of multiple coding procedures such as open, axial and selective coding, and techniques of comparison that are now used to advance analysis by intentional manipulation of data in a number of ways. Glaser (1978) only speaks of open and selective coding. Whereas Strauss (1987) believes that clarification of the process is achieved by distinguishing three stages of naming and comparing activity as mentioned above. Glaser (1990) argues against this, insisting that thinking about and executing these processes at two levels is sufficient. Furthermore, we see a concern with structural conditions not only at the micro level, but also at much broader social levels. This is clearly articulated in more recent methodological works (Corbin and Strauss, 1990, Strauss and Corbin, 1990, 1998) advocating that the analyst’s composed grounded theories include macro structural conditions that impinge on studied phenomena. To this end they also offer a macro coding paradigm, a ‘conditional matrix’ that directs the analyst to inquire into and specify the social, historical and economic conditions that may have a bearing on and influence the phenomenon. This will link micro and macro elements which represent a further clarification of what a sociological theory should look like.

The researcher decided to employ the techniques used by Strauss and Corbin (1990) because he needed the strict systematic coding as well as the ‘conditional matrix’ that their technique suggests in order to develop a model for organisational redesign.

Grounded theory and substantive theory

Glaser and Strauss (1967, p. 32) make much of the difference between substantive and formal theory: *“By substantive theory we mean that theory developed for a substantive, or empirical, area of sociological inquiry, such as patient care, race relations, professional education, delinquency, or research organizations. By formal theory, we mean that theory developed for a formal, or conceptual, area of sociological inquiry, such as stigma, deviant behaviour, formal organization, socialization ...”* They view formal theory as the sociologist’s (scientist’s) goal. However, they insist that to be valid, formal theory must be developed from a substantive grounding in concrete social situations.

In organisation studies many theories are substantive, decision-making and leadership being two instances. Substantive theories may even be developed for issues associated with working in virtual organisations or managing contingent workers. When we speak of formal theory we usually refer to those areas of inquiry that operate at a high level of generality, such as systems theory, agency theory and contingency theory (Locke, 2003).

Grounded theory: “theory” or “theoretical concepts”?

The meaning of the term “theory” in grounded theory seems to be taken for granted to such an extent that many criticisms of grounded theories revolve around concerns of their not being properly developed theories (Locke, 2003, p. 35). Researchers generalise their empirical observations by applying some linguistic device that is conceptual categories and/or frameworks (see Mouton & Marais, 1990). A conceptual category has analytic generalisability when it can plausibly account for a large number and range of empirical observations. Glaser and Strauss (1967) speak of this when they describe a theory as being generally applicable (Locke, 2003, p. 39). Although Glaser and Strauss (1967) argue that the grounded

theory style of research is especially suited to generating theories of social process, they also hold that the method can be used to generate static models, for example, a typology (Locke, 2003, p. 42).

Locke (2003) refers to various organisational studies using grounded theory in order to develop substantive **models**. The researcher is therefore of the opinion that “theory” in “grounded theory” does not (and should not) refer to a rigid application of one theoretical concept, “theory”, but does (and should) also refer at least to typologies and models, (see Mouton, 2002). *“The term ‘model’ is probably the most ambiguous in vocabulary of the social scientists. It is generally accepted that theories and models bear a number of important similarities”* (Mouton, 2002, p.196). He is of the opinion that both Achinstein (1968) and Gorrell (1981) maintain that the differences between models and theories are largely differences of degree. Although a rigid distinction need not always be drawn between model and theory, the difference between the two can be explained as follows:

- It is argued that the heuristic function is the most common characteristic of models, while the explanatory function is usually attributed to theories.

The organisational redesign model is based on the explanatory function of the SOR theory and explains heuristically how this redesign model can be used within a specific organisational setting. In other words this model attempts to represent the dynamic aspects of organisational redesign by illustrating the relationships between its elements in a simplified form. Kaplan (1964), mentions that a model agrees only in a broad sense with the phenomenon to which it is related. Certain characteristics of the phenomenon, which are irrelevant to the model such as de-layering, closing of departments, process re-engineering are not directly incorporated into the model, while the most obvious aspects are emphasised for example the consequences of the aforementioned aspects, namely the redesign of the organisation.

That is why the researcher defines the product of his research as a model (and not a substantive theory).

Grounded theory and management studies

Partington (2000) contends that the grounded theory approach is well suited to contemporary *mode 2 management research*³, which points to a break with academic circles through its focus on the practice domain. According to him, this mode of management research is trans-disciplinary and as such is less likely to bring with it mature theoretical frameworks developed within the boundaries of particular academic disciplines. It underscores the importance of accessing the *tacit* knowledge of organisational actors. Partington (2000) uses the approach to develop a grounded normative model that accounts for the actions of managers seeking to implement planned organisational change initiatives.

According to Locke (2003, p. 93) by the 1970s the grounded theory approach had been taken up in studies of management and organisational behaviour, and these were being published in prominent journals. Grounded theory has been one, if not the most important approaches cited in qualitative studies published in this discipline. In South Africa grounded theory is also increasingly applied, the studies of Nell (2005) and Smith (2004) being two recent ones.⁴

RATIONALE OF THE ROADMAP

Given the differences in grounded theory that exist between the original authors and relatively little formal training in this approach, newcomers to qualitative research⁶ wishing to use grounded theory are often at a loss (see, for example, Nell

1 Mode 2 management researchers show concern for the gap between academe and practice, advocating for research aimed at advancing the interests of the latter. It is trans-disciplinary, and as such less likely to bring with it mature theoretical frameworks developed within the boundaries of particular academic disciplines. It underscores the importance of accessing the tacit knowledge of organisational actors (Locke, 2003, p. 96). 2 Nell (2005) developed an organisational development change model within a financial institution and Smith explored knowledge management in modern-day organisations and the role of the human resources function in facilitating access to knowledge via knowledge holders (employees). 3 As a matter of fact Schurink (2005) indicates that qualitative research training courses both abroad and in South Africa receive far too little attention because of curriculum and logistical realities.

(2005) Strauss and Corbin's (1990) *Basics of Qualitative Research: Grounded Theory Procedures and Techniques* is also too detailed for a newcomer. Thus the researcher decided to create a roadmap for himself on how to apply grounded theory.

ROADMAP FOR OR PROCESS OF APPLYING GROUNDED THEORY

In developing this roadmap he followed the main decision taking steps normally found in qualitative research. Figure 1 depicts the grounded theory process he applied.

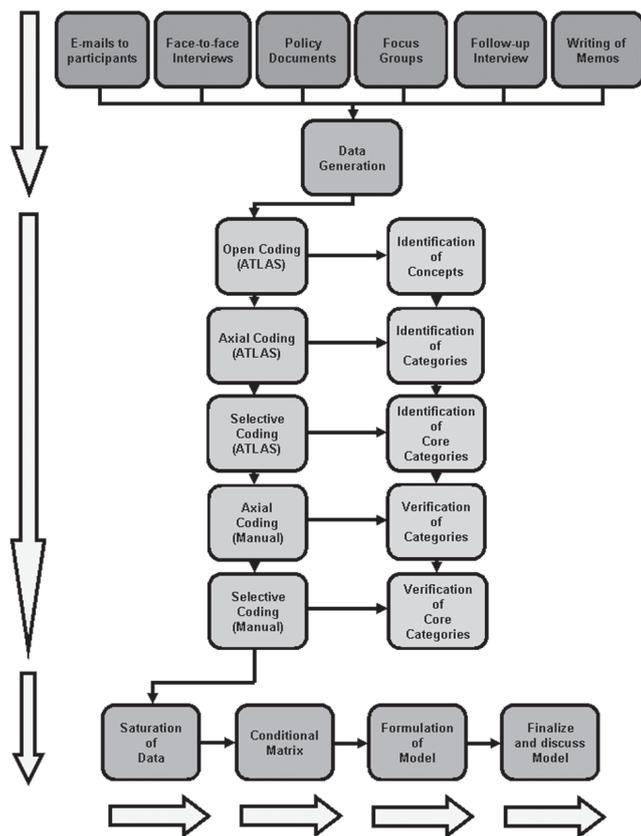


Figure1: Implementing the grounded theory process

RESEARCH DESIGN

When the predominant research approach is qualitative, a case study strategy tends to take an inductive approach to the relationship between theory and research. The case study as a research strategy comprises an all-encompassing method, covering the logic of design, data collection techniques, as well as data analysis approaches (Yin, 2003, p. 12). Yin (2003) explains that case studies are not only used to formulate theory, but also to test theory. Casing⁶ is a typical research strategy of the modernist qualitative research tradition⁷ (Schurink, 2004a, p. 2). Babbie and Mouton (2004, p. 640) define case study research as an intensive investigation of a single unit. This unit ranges from individual people,⁹ families, communities,¹⁰ social groups,¹¹ organisations and institutions,¹¹ to events, roles and relationships¹² and countries and nations.¹³ Casing is particularly popular in organisational research (Gummesson, 1991), and is well suited to capture the social world of people and reaching

an understanding of a real-life situation. Harrison (2002, p. 158) contends that case studies are the most satisfactory or enjoyable way to carry out management research.

According to Eisenhardt (2002, p. 12) case study research may involve a single case or multiple cases and may be exploratory, descriptive or explanatory. Punch (1998, p. 153) identifies four characteristics of case studies: (1) they facilitate the clear identification and description of boundaries; (2) they represent something that is obviously important to analyse; (3) they ensure a specific focus through posing research questions; and (4) they are likely to use multiple sources of data.

As these features matched the requirements for conducting an **explorative-descriptive** study,¹⁴ the researcher opted for a case study. More specifically he opted for a **single exploratory case study** on employees' social construction of a company's recently downsizing to create a social science basis for this process. Because of the study's qualitative nature, he primarily applied grounded theory.

SAMPLING

Sampling in grounded theory is directed by the evolving research and an ongoing part of data collection and analysis, both of which in turn direct the researcher in further sampling. Goulding (2002, p. 66) puts this as follows: "Theoretical sampling entails purposefully selecting a sample according to developing categories and emerging theory."

He based his sampling on his experience of a particular company and his close acquaintance with its employees (i.e. "tacit theory" and "insider perspective"), (Taylor & Bogdan, 1984, p.5). He selected two top executives, four senior managers who had applied downsizing in the company and one regional human resource consultant who was a custodian of the downsizing. Their selection was based on their involvement in the planning and execution of the original process and their different positions in the company.

DATA COLLECTION

Qualitative researchers study spoken and written representations and records of human experience, using multiple methods and sources of data (Punch, 1998, p. 174). These are collected through in-depth discussions with individuals or focus groups, direct observation, the analysis of artefacts, documents and cultural records, and the use of visual materials or personal experience (Denzin & Lincoln, 2003, p. 37).

The researcher first resorted to **document analysis**, which is the study of existing documents, such as public documents like annual reports, minutes of meetings, articles in the internal publications of an organisation, media reports and formal letters, and personal documents like diaries and photographs (Ritchie & Lewis, 2004, p. 35). He analysed two e-mail essays on the company's policy on organisational downsizing.

He also conducted personal interviews. According to De Vos, Strydom, Fouché and Delport (2005, p. 292) interviewing is the predominant mode of data collection in social science research, and according to Seidman (1998, p. 1) one interviews people because one is interested in their stories,¹⁵ which are a means of knowing. Kvale (1996, p. 2) adds an interesting dimension to interviewing by pointing out that an interview is literally an "inter view", an "inter change" of views between two persons conversing about a theme of mutual interest.

6 The term "casing" has recently come to be used in the United States for "case studies". 7 Modernist qualitative research is one of the so-called moments of qualitative research but builds on canonical works of the traditional period. Hence social realism, naturalism and slice-of-life ethnographies are still valued. 8 An individual case study provides a detailed account of one person (Babbie & Mouton, 2004, p. 281). 9 Community studies focus on one or more communities and describe and analyse the patterns of and relations between the main aspects of community life (Babbie & Mouton, 2004, p. 281). 10 Social group studies are studies of both small direct contact groups (e.g. families) and larger more diffuse groups (e.g. occupational groups) (Babbie & Mouton, 2004, p. 281). 11 Studies of organisations and institutions entail in-depth analysis of a firm, company, corporation, trade union, etc. However, there are many foci, including best practices, policy implementation and evaluation, human resource practices, management and organisational issues, organisational culture, processes of change and re-engineering (Babbie & Mouton, 2004, p. 281). 12 Case studies of events, roles and relationships focus on specific events, such as police-citizen encounters, doctor-patient interactions, specific crimes and studies of role conflict (Babbie & Mouton, 2004, p. 281). 13 Case studies of countries and nations focus on international and comparative politics and foreign policy, and the object may be a country or bloc of countries (e.g. SADEC) (Babbie & Mouton, 2004, p. 281). 14 See Burden (2006). 15 One who tells a "story" (or in Greek a "history") is taken to be wise and learned.

Finally, he applied focus group discussions. Schurink (2004c, p. 2) defines “group” as a number of individuals with the same background, interests, values and norms, who interact with one another in such a way that each person influences and is influenced by the other persons. “Focus” means that the discussion in the group is limited to the specific theme under investigation. A focus group interview can thus be described as a purposive discussion of a specific topic or related topics by eight to ten individuals with a similar background and common interests. Focus groups are typically used where the group process itself can illuminate the research issue. Focus group discussions provide a social context for research and thus an opportunity to explore how people think and talk about a topic; how their ideas are shaped, generated or moderated through conversations with others (Ritchie & Lewis, 2004, p. 37).

Capturing, storing and securing data

All the interviews were audio-taped and transcribed by a company that specialised in transcriptions. The transcriptions were e-mailed to the researcher and their hard copy versions were couriered to his office, where he locked them away after each was properly indexed. This enabled him to easily refer back to them as and when required.

In the light of the important role **field notes** play in qualitative research, he tried to be as detailed as possible. He also ensured that he would have about two hours between each interview to write an account of what he had heard or observed during the interviews.

The field notes were descriptive and reflective and included a short synopsis of the career history of each participant, their current roles in the company, marital status and language. He reflected on his methodology and his observations of the participants, that is whether they were relaxed about or inhibited by his seniority in the company, and how his interview style affected them. He also reflected on whether their experiences and perspectives were related to any abstract theoretical concept of redesign. In addition he noted their recommendations regarding the company's current downsizing.¹⁶

He compiled a **project diary** to capture the deployment of the study, **auto-ethnographical sketches** describing his experiences and thoughts on downsizing, and **memos** in which he noted his ideas and insights on the meaning of the data.

DATA ANALYSIS

Data was analysed with the aid of the ATLAS.TI 5.0. According to Muhr (2004, pp. 1-3) ATLAS TI 5.0 it is a powerful workbench for the qualitative analysis of large bodies of textual, graphical, audio and video data. It offers a variety of tools for accomplishing the tasks associated with any systematic approach to understand data, e.g. data that cannot be meaningfully analysed by formal statistical approaches. ATLAS offers tools to manage, extract, compare, explore and reassemble meaningful pieces from large amounts of data in a creative and flexible yet systematic way.

As there was nobody readily available to give the researcher an overview of ATLAS, he studied the examples throughout the manual and concluded that coding would be easy. However, it turned out that the logic he had to follow in the actual coding was very complex. Trusting that the theoretical constructs would assist him, he completed the literature review. However, this created more confusion and exposed him to accusations of engaging in analytic induction¹⁷. Thus the theoretical concepts were set aside and a pure grounded theory approach was followed, that is, coding was used as the only means of establishing what the interviews revealed about the phenomenon. So, as not to lose touch with the richness of the data he complemented ATLAS coding with manual coding.

From the codes he selected, he started developing themes. He also revised the coding approach on the basis of insights he had gained from the first exercise. After this the coding started all over again. A picture of the new downsizing process was slowly emerging. Now he developed more descriptive codes. After he had defined core categories the new downsizing process took on more precise features.

He then detected a problem with the coding in that he felt that he was not certain whether ATLAS assisted him to identify all the relevant codes. This led to his decision to transfer all the codes with their associated quotations to a word document. This was subjected to manual coding, which brought new insights. He transferred the outcome of the manual coding to a new word document and used the new document to update the code file in ATLAS. He proceeded with the manual extraction of core categories and updated all documents again. This resulted in yet another new picture of downsizing. When ATLAS stopped yielding new information, we realised he had exhausted the data.

Open Coding

Strauss and Corbin (1998, p. 101) define open coding as the analytic process through which concepts are identified and their properties and dimensions discovered in the data. According to De Vos et al. (2005, p. 346) open coding pertains specifically to the naming and categorising of phenomena through close examination of the data. Without this first, basic analytical step the remainder of any analysis is difficult, if not impossible.

During open coding the data are broken down into discreet parts. These are then closely compared for similarities and differences, after which questions are asked about the phenomenon embedded in the data. In fact, grounded theory is often referred to in the literature as the **constant comparative method** of analysis (Glaser & Strauss, 1967).

The researcher analysed the e-mail texts and the transcripts of the personal interviews by breaking them into distinct units of meaning per line of text and then identified key words or phrases in the participants' accounts of the phenomenon under investigation. He tried to establish a link between a passage of text of any length and some general phenomenon.

Axial Coding

Axial coding is the process of relating categories to their sub-categories (Strauss & Corbin, 1998, p. 123) to create code families. The term “axial” derives from the fact that coding occurs around the axis of a category, linking categories at the level of properties and dimensions. De Vos et al. (2005, p. 348) define axial coding as a set of procedures whereby data are put back together in new ways after open coding, by making connections between categories. This is done on the basis of a coding paradigm that involves conditions, context, action/interactional strategies and consequences. Though open and axial coding are distinct analytic procedures, the researcher alternates between the two when he or she engages in analysis.

He continued using ATLAS for axial coding as it expedited and eased abstraction. He was also acutely aware of researchers' concern with computer-assisted qualitative data analysis, and therefore took care to avoid the fragmentation of the textual material and the de-contextualisation of the data.

Selective Coding

Selective coding is not very different from axial coding, but takes place at a higher, more abstract level of analysis. De Vos et al. (2005, p. 349) mention that selective coding entails the process of selecting the core categories, systematically relating them to other categories, validating those relationships, and filling in categories that need further refinement and development. These

¹⁶ This information was invaluable during the coding process. ¹⁷ “...AI and analogous theory-building approaches ostensibly seek to capture aspects of the social world from the perspective of actors and allow the revision of hypotheses and conceptual structures through the analysis and elimination of negative cases. In doing so it attempts to maintain faithfulness to empirical data gathered from a relatively small number of cases” (Gill & Johnson, 2002: 157).

steps are not necessarily taken in linear sequence, nor are they distinct in actual practice (Strauss & Corbin, 1998).

The researcher performed selective coding and defined the core categories (super codes) electronically by means of ATLAS, and transferred the codes and the associated quotations to a word document to determine whether the correct codes had indeed been allocated to the quotations. The results were afterwards verified by means of manual coding, which led him to re-allocate certain codes and re-phrase some categories. These changes were transferred to the ATLAS file. Hereafter he reviewed both the categories and the core categories. Where appropriate, their definitions were amended. The selective coding was the most important step towards defining a model for organisational redesign. The next step was the first focus group discussion.

FIRST FOCUS GROUP DISCUSSION: EVALUATION OF THE CODES

The first focus group discussion was conducted at the company's headquarters. The purpose was to clarify the codes, categories and core categories. To this effect the researcher developed a schedule containing the concepts, categories and core categories to guide the discussion.

He used brainstorming and the nominal group technique to identify new codes, categories and core categories. **Brainstorming** is meant to overcome the pressures of conformity through the interaction of creative alternatives. The technique generates ideas by specifically encouraging any and all alternatives, while withholding any criticism of these (Bergh & Theron, 2003, p. 249).

The **nominal group technique** restricts discussion during the decision-making process, hence the qualifier "nominal". Although group members share the same physical space, as in common meetings, they operate independently. More specifically, a problem is presented to the group and then the following steps take place (Bergh & Theron, 2003, p. 249):

- The members meet as a group, but before any discussion takes place, each member independently writes down his or her ideas on the problem.
- This silent period is followed by each member presenting one idea to the group. Each member takes a turn, going around the table, presenting a single idea until all ideas have been presented and recorded (usually on a flip chart). No discussion takes place until all ideas have been recorded.
- The group then discusses the ideas for clarity and evaluates them.
- Each group member silently and independently puts the ideas in rank order. The final order is determined by the aggregate ranking of the ideas.

Brainstorming and the nominal group technique facilitated the critical review of the categories and core categories, and placing the latter in sequence, which was simultaneously the first step towards defining the model. The focus group discussion was tape-recorded and later transcribed by a company that specialises in the transcription of interviews. The transcriptions were e-mailed to the researcher, and the hard copies were couriered to his office. He analysed the transcriptions of the focus group discussion by means of open, axial and selective coding to determine whether the current codes needed updating. As new concepts, categories and core categories emerged, he updated all the codes and added the new ones.

Dimensional Analysis¹⁸ and Conditional Matrix¹⁹

According to Goulding (2002, p. 79), Schatzman (1991) developed a method called dimensional analysis, which moves interpretation from a descriptive to an explanatory level in order to identify

the relationship between and across emerging phenomena. Dimensional analysis uses as its foundation conditions, process, context and consequences that can be shown to have an effect on the story of the informant. The purpose of this method is to provide a structure for analysis and explanation. It assists the researcher in moving a particular observation of a situation towards a more abstract presentation.

Applying dimensional analysis the researcher scrutinised all the data until a critical mass of dimensions was assembled that represented emerging pathways with explanatory power. (Grounded theory employs similar strategies for describing process and developing theoretical frameworks). He then placed the data in a framework of (1) causal conditions, (2) the phenomenon, (3) intervening conditions and (4) interactional strategies. The next step was the creation of a conditional matrix.

The researcher scanned management studies for an example of the use of a conditional matrix and found it in Partington (2000). Partington used it in mode 2 management research, but applied a structured approach to grounded theory building. This adaptation proved to him that theories of management action that satisfy the demands of mode 2 management research can differ from the integrated sociological theory for which grounded theory was originally developed.

Partington (2000, p. 95) indicates that S-O-R theory is concerned with how people's understanding of their environment leads to action. In management research this features in the mediating role of the manager between environmental stimulus and behavioural response. On the face of it the assumptions behind grounded theory's symbolic interactionist underpinnings match the S-O-R orientation because it is concerned with understanding social processes and interactions from the social actor's point of view. According to symbolic interactionists a stimulus to act undergoes a process of interpretation before a response (an act) is forthcoming (Bryman, 1988, p. 54). This view is broadly in line with the premises of S-O-R theory.

However, when applying grounded theory, the difference between S-O-R and symbolic interactionist theory regarding the **conception of causality** must be taken into consideration. Whereas S-O-R theory attributes a central role to causality, symbolic interactionist theory links causal conditions to action not through cognition but more indirectly via "phenomenon", "context" and "intervening conditions", each of which may include elements of cognition. (The complexity of the symbolic interactionist view of the role of causality in theory, is reflected in Strauss and Corbin's (1990) model.) Another consideration when applying grounded theory is the **eight-layered conditional matrix**, which covers all components of the paradigm model, not only in the responses of individuals to stimulus information in organisations, but also in the full kaleidoscope of sociological contexts.

The researcher's task is to grasp the process of interpretation by which actors assign meaning to their actions. A problem for grounded theorists using interview data in management cognition studies is that such data are not based on observed events, but on research participants' second-hand accounts of these events. The issue here is not whether research participants are deliberately or unwittingly more "logical" or "socially desirable" but that the "reality" sought by the interviewer entails a causal S-O-R mechanism removed from his or her intermediate reality and from what he or she is supposed to observe (Partington, 2000).

Taking these issues into account, the researcher believe it is possible to develop an improved grounded theory framework that matches the requirements of S-O-R research. This can be done by simplifying Strauss and Corbin's (1990) model, and by aligning it more closely with causal aims (Partington,

2000). This adaptation should produce a framework that embraces the study of the interpreted behaviour of people in all social science disciplines and social contexts. The framework's structuring of the social context of organisations and its central focus on management action significantly simplifies the model. The adaptation should also reduce the eight concentric circles of the conditional matrix to the following four circles: (1) external organisational context, (2) internal organisational context, (3) individual and collective managerial cognition and (4) action. This will align the paradigm model (S-O-R model of causal tendency) with the conditional matrix. Finally, an ontology is needed that will accommodate the development of causal theory while acknowledging the lack of absolute causal certainty inherent in social processes. Interview-based causal-theory-building research has to be anchored in a theory of reality that allows the specification and refinement of explanations of cause and effect (Partington, 2000).

The simplified conditional matrix enabled the researcher to grasp the interrelationships between the various core categories, and this assisted him in constructing the substantive model.

Towards a Model

A model provides a systematic representation of phenomena by identifying patterns and relations among variables. It explains the relationships between core categories heuristically (Mouton & Marais, 1996, p. 195). Based on this view the researcher constructed a model for organisational redesign consisting of 23 steps. In terms of S-O-R theory, step 1 refers to the external organisational context, step 2 to the internal organisational context, steps 3 to 11 to individual and collective managerial cognition, and steps 12 to 23 to action.

He contextualised the model within the existing literature by means of a second focus group discussion.

SECOND FOCUS GROUP DISCUSSION

The researcher requested the group to study the amended model and then discuss each of the steps in terms of its meaning and relation to organisational downsizing. All categories and core categories per step were discussed and verified. Minor amendments were made, that is the names of core categories were changed. The sequence of the downsizing process was also considered, but no change was required. However, the participants felt that the model's name ("Organisational Downsizing") had to be reviewed. To this effect the researcher used the nominal group technique. The participants finally came up with "Organisational Redesign". As no new information emerged after this, he concluded that the process had reached saturation.

Integrating the Constructed Model with the S-O-R Theory

The researcher integrated the four labels of the conditional matrix with the newly formulated model for organisational redesign. The model was perfectly in line with S-O-R theory.

Substantiation²⁰

The researcher substantiated the model by means of **triangulation**, ie, using more than one data collection method or data source, which yields more convincing results than a single method or a single source of data (Potter, 1996, p. 153). He used e-mails, face-to-face interviews, memos, field notes and focus group discussions to gather the data for the study. This variety ensured multiple substantiation of his arguments.

KEY IMPLICATIONS

The researcher's application of grounded theory has various implications, and he now turn to the most apparent ones.

Methodologically, he feels he made the following contributions:

- He applied grounded theory in quite a pure manner, consulting existing theoretical concepts only at the end to consolidate his insights. Although he brings his personal experiences and biases into his studies, he did not include any existing theoretical concepts prior to undertaking the study and also did not apply analytical induction. He found grounded theory to be sufficiently systematic to produce quality findings.
- The 'roadmap' he developed to implement grounded theory is invaluable. In the light of clear guiding steps, he believes that such a 'roadmap' is essential at least in local research. He would like to believe that the one he constructed paved the way to improve the application of the approach in the South African business research.
- Applying a conditional matrix in particular represented an important step forward in the application of grounded theory, as conditional matrixes are generally absent from local and international grounded theory studies (Locke, 2003).
- His application of both electronic and manual coding was an advantage. Manual coding enabled him not only to cross-check the electronic process but also to remain immersed in the data. It also enabled him to add codes to those originally identified by the Atlas software.

CONCLUSION

In conclusion he would like to emphasise the following:

1. While he feels the present study and its resultant model is important, substantial work is clearly still required.
2. Although Strauss and Corbin (1990) give clear, but complicated guidelines on how to execute grounded theory, he struggled to use them for his study. He therefore created a 'roadmap' for himself at the outset of the study to apply grounded theory. There is just too much evidence of research novices who find the application of grounded theory so complex that they are tempted to give up.
3. All of us have different perspectives on research work including its contributions and shortcomings. His view will most certainly differ from those of many readers, which he does respect. He believes that while this piece of research also reflects shortcomings as all social science research studies, that he has to the best of his ability eliminated the well-known ones by applying appropriate techniques and that those that slipped through do not affect validity of his organisational redesign model.
4. His study produced a blueprint for the application of grounded theory by local research novices wishing to explore and explain social phenomena in the qualitative tradition. It also has wider application in that his formalisation of the qualitative approach offers a means to counter the criticism of positivist researchers that qualitative studies lack rigour (see Partington, 2000).
5. He would like to advise future local doctoral students of leadership and change wishing to utilise grounded theory in their research, to take the following at heart:
 - Create a roadmap based on a reading of the literature before beginning with the study. This will help them to understand what grounded theory is, how to execute it and what methods can be used for gathering information. Although grounded theory is extensively discussed, how to execute it is seldom, if ever, spelt out.²¹
 - Use the ATLAS.ti 5.0 software. It is well suited to grounded theory studies.

²⁰ In addition to triangulation we also applied a number of other strategies to secure soundness. These are described fully in Burden (2006). ²¹ See Chapters 3-5 in Burden (2006) of how grounded theory was practically applied.

- Combine manual coding with electronic coding, especially during axial and selective coding. This will facilitate verification of the codes and exposure of additional codes.
- Test the process and see whether it will assist future students who wish to use grounded theory.

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