INTRODUCTION

In 1996 Maree, Joubert and Prinsloo identified the grounded theory method of research as a workable research method for criminological research. They gave an exposition of the methodological substructure that illustrated a tapestry of different scientific philosophical perspectives, such as the qualitative approach, interactionistic perspective (symbolic interactionism) and the grounded theory approach. This article aims to present a practical application of the methodological layout of the grounded theory method of research by referring to a research project undertaken between 1992 and 1995 on the modus operandi of the bank robber (Maree 1995).

SYNOPSIS OF KEY CONCEPTS

Theoretical sampling: Theoretical sampling is a process. The researcher’s decision to generate theory when studying a specific phenomenon is the first lane of control of the grounded theory research process. The researcher initiates the study from an angle where a known concept illustrates the essential characteristics of the structures and processes of the phenomenon. The researcher’s point of departure was created by these concepts (Glaser & Strauss 1967:45). After the researcher’s initial decision about the topic, the data themselves indicate what information should be collected in order to generate a theory. Questions and comparisons unfold through analysing, thereby guiding the researcher to generate relevant categories, properties and dimensions.

Theoretical sampling is cumulative because concepts and their properties are interrelated through the interplay of data collection and analysis. Sampling leads and increases the depth of focus. In the initial sampling a researcher is interested in generating as many categories as possible. Eventually the focus shifts to the development, density and saturation of categories. Consistency, which refers to the systematic gathering of data in each category, is an important aspect of sampling. Theoretical sampling ensures that the researcher becomes aware of the variations, processes and density of the unfolding categories. Viewed from this perspective and based on Strauss and Corbin’s (1990:178) argument, theoretical sampling needs planning although it retains some degree of flexibility.

Coding: Within the grounded theory research process three types of coding procedures can be identified: open, axial and selective coding.

Open coding is an interpretation process in which data are broken down, conceptualised and put together in new ways by means of analysis. This process gives the researcher the opportunity to gain new insights when studying the data for interpretation. The purpose of open coding is to identify concepts and categorise phenomena, which leads to the emergence of categories with certain characteristics and dimensions. During the open coding process the researcher must be on the look out for constantly recurring information as well as additional information that could lead to new discoveries.
Axial coding - Strauss and Corbin (1990:96) define axial coding as "a set of procedures by which data are put back together in new ways after open coding, by making connections between categories. This is done by using a coding paradigm involving conditions, context, action/interactional strategies and consequences."

Axial coding takes place after the open coding process. The researcher's focus is mainly on the coded themes and not necessarily on the data. Categories are related to subcategories and these relationships tested against data. If these deductive hypothesis/propositions are not supported by data, it is necessary to implement them alternatively or to reject them.

Selective coding is a process by which core categories are selected and systematically related to other categories, these relationships are validated and categories that need further refinement and development are filled in (Strauss & Corbin 1990:116).

This type of coding is likely to occur during the later phases of the study and different stages can be identified: The first stage is the conceptualisation of a story that entails the core category. Secondly, additional categories are unified around a central "core" category by means of a paradigm. The third stage shows the relationship between categories on a dimensional level. During the fourth stage relationships between core categories and other categories are validated against the data. The fifth stage includes the incorporation of additional categories for the purpose of verifying and developing the emerging theory (Strauss & Corbin 1990:118). In reality these stages are interrelated and the researcher moves back and forth between them.

Canons and procedures of the grounded theory method: Novice researchers are advised to consult Basics of qualitative research, grounded theory procedures and techniques by Strauss and Corbin (1990) for an analytical description of the different steps that need to be carried out. Below follows a summary of the canons and procedures identified by Strauss and Corbin (1990):

- Grounded theory emphasises the interrelated processes of data collection and analysis.
- The basic units of analysis are concepts.
- Categories are to be developed and their interrelatedness identified.
- Sampling occurs on theoretical grounds.
- Analysis by means of constant comparisons takes place.
- Patterns and variations are to be accounted for.
- Process must be built into theory.
- Writing theoretical memos is an integral part of grounded theory.
- During the research process hypotheses on relationships among categories are developed and verified as much as possible.
- Broader structural conditions must be brought into the analysis however microscopic the focus of the research.

PRACTICAL APPLICATION

Campbell (1986), Van der Wal (1992) and other researchers are not agreed on the exposition of the research process when writing monograms and theses. Taking the procedures identified by Strauss and Corbin (1990:253) into consideration, and the practical experience obtained during a research project in Criminology, the authors are of the opinion that aspects of sampling, data collection, analysis and validity need to be addressed.

SAMPLING

Identifying the research question and research group: At the onset of the study a research question must be formulated which identifies the phenomenon to be studied (the modus operandi of the bank robber) and specifies what to focus on and what the researcher wants to know about the subject. In the application of
the grounded theory the research question centres on action (criminal behaviour - execution of a bank robbery) and process (the bank robber’s planning influenced by action/interaction, and socioeconomic factors).

At this point the researcher is actually doing theoretical sampling, a process of data collection where the data itself indicates which particular information needs to be collected to generate a theory. To collect data about the bank robber’s *modus operandi*, the sources of information were identified and sampled, guided by the research question. According to Brink (1991:15) the researcher undertaking a qualitative study identifies respondents/subjects according to the specific needs and qualities of the research project and the ability of a respondent/subject to provide information about the research question. However, for this specific topic the criminologist was confronted with a dilemma. Because of ethical issues and legal responsibilities, the researcher could not take part or directly observe the planning and execution of a bank robbery. Therefore, convicted bank robbers were identified as the main sources of information. Including offenders who served a prison sentence had several advantages. The Department of Correctional Services has the infrastructure to identify different categories of offenders, such as bank robbers, and the Department also has documentation available for the verification of factual information. A representative sample is not required because the selection of subjects is saturated when the whole spectrum to be studied is covered or when no additional information comes to the fore (Taylor & Bogdan 1984:83).

**DATA-COLLECTION**

**Data-collection technique:** The type of information the researcher requires determines the choice of a data-collection technique. In the case of bank robbery, the researcher could not take part in or observe the original planning and execution of such a crime therefore participant observation was not considered a suitable method. The only alternative to collect richly descriptive and detailed information about a specific topic from the offender, such as the execution of a bank robber, is through interviewing (Lofland & Lofland 1984:12). Taylor and Bogdan (1984:80) also see the in-depth interview as a suitable data-collection technique when studying persons or events that are inaccessible by any other technique.

Therefore, the advantages of the interview as a data-collection technique will be highlighted (Heyink & Tymstra 1993:298):

- The respondent has the opportunity to address aspects that he or she deems to be important for the study.
- Misunderstandings about questions asked and answers given can be clarified immediately.
- The flexibility and adaptability of the interview situation offer the researcher the opportunity to develop hypotheses/propositions.
- Based on confidence, security and the establishment of a mutuality of purpose a "rapport" builds up between the researcher and the subject.
- The interview is a "wide-bond method" which indicates that the relevance of different themes can be checked at short notice.
- The interview is a suitable technique for collecting data on feelings, attitudes, intentions and motivations for behaviour.

Qualitative interviews, on the other hand, are time-consuming. Taylor and Bogdan (1984:88) suggest that the duration of an interview should be approximately two hours although Schurink (1988:146) postulates that interviews could take between two and four hours. The writers do not support the idea of lengthy interviews because the subject can be overtaxed and less likely to concentrate. Subsequent interviews can alleviate this problem. Qualitative interviews require particular skills of a researcher, such as intense...
concentration, alertness, sensitivity and observation.

**Focused semistructured in-depth interview:** A focused semistructured in-depth interview centres on the studied phenomenon (the *modus operandi* of the bank robber) where the interviewing process is directed by guidelines. These guidelines focusing on questions and topics to be discussed without formulating specific questions in a particular specific sequence, are characteristic of qualitative studies. Openness and flexibility or adaptability are standard requirements for grounded theory (Strauss & Corbin 1990:26).

The semistructured interview, like the unstructured interview, allows the subject to respond freely. The semi-structured interview is directed by guidelines consisting of themes, and/or questions, which should be addressed during the interview (Berg 1995:33).

In researching the *modus operandi* of the bank robber, themes focusing on the actions of the bank robber as offender were identified, such as: Planning a bank robbery - planning a suitable target; location of the target; specific day and time; arms and violence.

**Course of the semistructured interview:** Appointments were made with subjects through the relevant authorities. At the onset of the interview, the researcher introduced herself and stated the purpose and expected duration of the interview (± one and a half hours), the confidentiality of information and the crucialness of each subject's voluntary participation.

The researcher recorded the interviews with the subjects' permission. Because of the sensitivity of the information provided by the subjects, they controlled the tape recorder. The advantage of this procedure is that subjects can still respond on sensitive issues, such as uncharged offenses, without incriminating themselves. By completing an information form covering demographic details of each subject at the start of the interview, the researcher had the opportunity to verify information with documentary sources.

**Data-collection instrument:** Qualitative research, under which grounded theory resorts, needs a human instrument during the collection of data. This human instrument is the researcher, who personally collects and analyses data (Whitt 1991:408). Merriam (1988:19) stresses that the researcher "as instrument is responsive to the context; he or she can adapt techniques to the circumstances; the total context can be considered; what is known about the situation can be experienced through sensitivity to nonverbal aspects; the human instrument can process data immediately, can clarify and summarise as the study evolves and can explore anomalous responses."

The researcher can be seen as the first controller of the research project because of his or her knowledge of the phenomenon to be studied and the research method (Glaser & Strauss 1967:45). The researcher also requires a sensitivity to people and a knowledge of human nature. The researcher is influenced by the values of the theoretical lens, for example, symbolic interactionism. Harris (1990:65) conversesthat "The qualitative researcher seeks to enter the world of the participant, and to some degree regards himself or herself as a vessel or vehicle through which the participant makes known an intricate story of a 'slice' of the participant's life."

According to Rew, Bechtel and Sapp (1993:300-301), the following are important characteristics in a person who is to be the primary instrument for collecting data: appropriateness, authenticity, credibility, intuitiveness, reciprocity, receptivity and sensitivity.

**Writing up data:** The most important equipment used by a qualitative researcher is a notebook or field journal. A tape recorder can also be used as supplementary equipment if the researcher takes precautionary measures to eliminate mechanical failure. The use of both a notebook and a tape recorder when interviewing has several advantages. It simplifies
verbatim quotations when writing the research report and gives the researcher the opportunity to concentrate intensively on the conversation and body language or nonverbal behaviour (Lofland & Lofland 1984:60).

ANALYSING PHASE

The analysing phase of the grounded theory method of research is characterised by different coding procedures, namely, open coding, axial coding and selective coding as identified by Strauss and Corbin (1990:57-176). (See synopsis of key concepts.) To explain these processes within the cadre of criminology, the authors will focus on the method of analysing interview transcripts in qualitative data referring to Burnard's (1992:461) contribution as well as practical examples.

As indicated, note taking is an essential part of the analysing process and is the first stage identified by Burnard (1992:461). Note taking on topics addressed takes place after the completion of each interview. Whilst doing the research, the researcher jots down ideas such as categorising data or anything else that attracts the researcher's attention during the initial stages of the analysis. For example, the researcher describes the circumstances under which the interview took place, gives general impressions of the interview and the respondent's attitude and body language, main points of the interview, adjustments in the generated substantial theory, the approval, modification and rejection of propositions, new insights and new areas to investigate.

If possible, transcribing the interview should take place after the completion of the interview (Lofland & Lofland 1984:61-68). After transcribing the interview, the researcher can move to the second stage of analysing interview transcripts. The researcher study-reads through the transcriptions and makes notes on general themes in the transcripts. By doing this the researcher becomes aware of the respondent's frame of reference. The following notes serve as an example:

- The bank robber weighs up different options before identifying a suitable target.
- A major category to do with "target selection" may be emerging.

The actions in Burnard's (1992:462) third stage correspond to Strauss and Corbin's (1990:57-60) procedures characterising open coding. The researcher again studies the transcript and writes down as many headings as necessary to reflect the content, excluding information unrelated to the topic. At this stage categories are generated freely. For example:

Interview transcript: First, I give attention to the escape route... (Open coding: The escape route is important.)

Interview transcript: The possible amount available directs the target... (Open coding: Financial gain.)

Interview transcript: Definitely, not near my place of residence. Somebody would recognise me... (Open coding: Residential area of the bank robber.)

Interview transcript: Around the corner. I arrive from one way and leave in the other... (Open coding: Geographical location.)

Interview transcript: Available parking is important... (Open coding: Parking available.)

Interview transcript: Where is the police station?... (Open coding: Location of the police station.)

During the fourth stage of analysis the researcher surveys the list of categories and groups related categories under high-order headings. For example, the following subcategories can be classified under the heading/category "Target selection":

- Identifying a possible successful get-away route
- Location of the bank

In the fifth stage the new list of categories and subcategories are worked through. Repetitive and related categories are deleted. What Strauss and Corbin (1990:96-115) describe as axial coding then

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emerges as the final list of categories. The sixth stage involves consulting with colleagues who are familiar with the grounded theory method of research and/or experts in the field such as lawyers and police officers, with a view to independently generating categories. All lists are discussed and adjusted. This phase improves the validity or grounding of categories and guards against researcher bias. To ensure that the categories represent the data accurately, the researcher rereads the transcript during the seventh stage and makes the necessary adjustments.

When rereading the transcripts during the eight stage, the researcher uses coloured highlighting pens to distinguish between different parts of the transcript allocated to a category or subcategory. Such colours can be used as follows, for example:

- Importance of the get away route: red,
- Location of the selected target: green.

Alternatively, the categories can be identified on a computer, using a word processor and a coding scheme devised by the individual researcher (Burnard 1992:463) or by using different numbers for different categories and subcategories. Numbering can be used as follows, for instance:

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>CATEGORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Location of the selected target</td>
</tr>
<tr>
<td>3.1</td>
<td>Financial gain</td>
</tr>
<tr>
<td>3.2</td>
<td>Crowding</td>
</tr>
<tr>
<td>3.3</td>
<td>Geographical location</td>
</tr>
</tbody>
</table>

Transcript:
The possible financial amount available directs the target. 3.1
A quiet place. There must not be many people close to the bank. 3.2
Around the corner. I arrive from one way and leave in the other. 3.3

The ninth stage represents the cutting out of related parts by clipping multiple photocopies of transcripts. One complete set of transcripts should be kept for reference. Every sentence of the interview is in context and should be connected to the total conversation. To take only a string of words without looking at the context, changes the meaning. The highlighted words are cut out to present a phrase that, on its own, clearly means something different from what it does when read with the highlighted words.

"I want as little trouble as possible but if the police started shooting at me or someone is actually shooting at me...yes, I would have shot."

In stage ten the cut out sections are pasted onto sheets under the appropriate headings and subheadings. The phrase above would resort under the heading "Planning regarding arms and violence".

Selected subjects evaluate the category system and confirm if specific quotations from their interviews fit the categories. Adjustments are made, if necessary. This procedure carried out in stage eleven ensures validity of the contents. Stage twelve can also be used to validate the findings. When writing the report, copies of the completed interviews are kept at hand for clarification purposes.

At this point, stage thirteen, the writing up process commences. The researcher defines themes, categories and/or subcategories. Relevant questions from the data can be grouped as conceptual constructions. All the while original tape recordings and complete transcripts of interviews should be at hand. In stage fourteen examples listed in the table as conceptual constructions are discussed and linked to literature. Burnard (1992:464) identifies two options. Authors prefer to write up findings alongside references to the literature. This section then becomes a presentation of findings and a comparison of literature findings. For example:
The importance of a suitable get-away route

Although the get-away action occurs after the execution of the robbery, the identification of a successful get-away route is indicated as the first and most important aspect the subjects take into account. Based on the data, robbers will not rob a bank if in their view the get-away route appears to be problematic.

Conceptual construction of the importance of a suitable get away route

What is important is the get-away route.
One decides on a get-away route before the execution of the robbery.
If a place is identified by me as a possibility,
I look around for a get-away route. Would it be easy to get away from the place?

Literature findings (Letkeman 1982:220) confirm the subjects' opinions on the importance of the get-away route. Therefore, a suitable get-away route can be declared as the bank robbers' most important consideration when considering a bank to rob.

It is recommended that when writing theses as stage fifteen, the process of axial coding be discussed in a separate chapter. The novice researcher should keep in mind that this way of writing is an analytical differentiation.

ETHICAL CONSIDERATIONS

The qualitative researcher should meet specific criteria regarding ethical considerations (Maree 1995:29-30). Confidentiality about subjects' anonymity, their backgrounds and collected information/data is crucial. It is therefore suggested that, because of the serious nature of the crime, the sensitivity of the matter and violation of anonymity, interviews should not be published in their entirety.

The researcher should be honest about the purpose of the research project, the use of data and findings, and accessibility of people to original transcripts. Subjects form an integral part of the different stages of the research process. They are considered meaningful participants (Whitt 1991:414).

The qualitative researcher has a responsibility to subjects to lessen the effects of the study, foresee problems and consequences and eventually to contribute to scientific knowledge. Researchers should keep in mind that they share some of the subjects' deepest emotions. This information should be handled with circumspection. Reporting to subjects should take place through published medium.

Researchers should create a climate of mutual trust and refrain from making any judgements. Qualitative researchers need to react sensitively to subjects and their subjective range of perceptions regarding criminal offences. Researchers should protect a position of trust by concentrating on the purpose of the study, systematic data collection, analysis and interpretation reflected in a scientific report.

CONCLUSION

The collecting of data is guided by analysis which represents the basic and fundamental canons of the grounded theory method (Strauss & Corbin 1990:179). All the aspects represent an interwoven process. Therefore, the discussion of each step of the research process can mislead the novice researcher. For this reason the following thought processes can assist the researcher for they illustrate a logical line of thought when confronted with the interrelatedness of all the steps of grounded theory.
Sampling
- Identifying research question
- Identifying the research group

Data collection
- Technique
- Instrument

Writing up data

Analysis Process

Validity

In a subsequent article the propositions and substantive theory generated from this study - the modus operandi of the bank robber - will be addressed.

BIBLIOGRAPHY


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