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# Data Analysis

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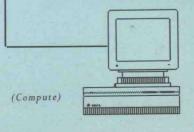


# Qualitative Data Analysis

A User-Friendly Guide for Social Scientists

IAN DEY





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A user-friendly guide for social scientists

Ian Dey



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### **Preface**

A new book on qualitative data analysis needs no apology. By comparison with the numerous texts on statistical analysis, qualitative data analysis has been ill-served. There is some irony in this situation: even a single text might suffice for the standardized procedures of statistical analysis; but for qualitative analysis, oft-noted for the diffuse and varied character of its procedures, we might reasonably expect a multiplicity of texts, not just a few. Teaching a course on methods makes one especially aware of this gap. This book is my contribution to filling it, and I hope it will encourage – or provoke – others to do the same.

A contemporary text on qualitative data analysis has to take account of the computer. The days of scissors and paste are over. While those steeped in traditional techniques may still harbour suspicions of the computer, a new generation of undergraduates and postgraduates expects to handle qualitative data using the new technology. For better or worse, these students will not give qualitative analysis the same attention and commitment as quantitative analysis, if only the latter is computer-based. This book is written primarily for them. I hope it may also be of some interest to other researchers new to qualitative analysis and to those using computers for this purpose for the first time.

Although the methods presented here assume the use of specialist software to support qualitative analysis, those seeking an introduction to individual software packages must look elsewhere (for example, Tesch 1990). My intention is to indicate the variety of ways in which computers can be utilized in qualitative analysis, without describing individual software applications in detail. No one application – including my own package, Hypersoft – will support the whole range of procedures which can be employed in analysing qualitative data. The researcher will have to choose an application to support a particular configuration of procedures, and one of my aims is to permit a more informed choice by identifying the range of analytic tasks which can be accomplished using one software package or another.

The challenge of developing a software package to analyse qualitative

data has been a useful stimulus to clarifying and systematizing the procedures involved in qualitative analysis. It has also allowed me to write a text informed by what we can do with the computer. In my view, the advent of the computer not only enhances, but in some respects transforms traditional modes of analysis.

The book is based on my experiences as a researcher and teacher as well as a software developer. My research has involved a variety of qualitative methods, including observation, in-depth interviewing and documentary analysis; and through it I have learnt some of the procedures and paradoxes of qualitative analysis. As a teacher, I have become convinced of the merits of 'learning by doing', a perspective which has informed the skills-based methods course I have taught over the last few years with my colleague, Fran Wasoff. For those interested in skills acquisition, a text which provides a variety of task-related exercises and small-scale projects for students would be an invaluable asset. But this is not my aim in this book. Experience of teaching qualitative methods has also persuaded me of the value of a clear and uncomplicated introduction providing essential background knowledge and helping to structure the learning experience. This is what I hope this book will do.

A text introducing computer-based qualitative data analysis may need no apology, but my decision to illustrate analytic procedures using everyday material – mostly humorous – probably does deserve some explanation. The shortest explanation is that it works. Methods courses are notoriously dull. Pedagogical devices which work well enough for substantive issues can fail to engage students sufficiently in a course on methods. Students quickly tire of reading about methods, when what they want is to acquire and practise skills. In recent years I have been involved in teaching a methods course which aims to stimulate student interest and maintain motivation. One lesson I have learnt in teaching this course is that the problems students work on should be interesting and entertaining as well as instructive: that methods can be fun. We have used everyday material and humorous examples in our methods course, and it never fails to stimulate students' interest and engage their attention. I think this is a question of Mohammed coming to the mountain, rather than the mountain coming to Mohammed. It is better to introduce qualitative analysis on students' terms, rather than one's own. Students unfamiliar with research find familiar examples reassuring. They can relate to the material without effort. Because they can relax and even enjoy the substantive material, they can concentrate better on procedures and process. If students can easily grasp research objectives, and quickly become familiar with the data being analysed, they are more likely to find qualitative analysis a manageable and rewarding challenge.

In this book, I have mainly used humour as the medium through which to discuss the methodological problems of qualitative data analysis. Apart from offering light relief, humour is a subject we can all relate to. Whereas substantive issues are likely to be of minority interest, humorous exemplars are accessible to all. We can analyse humour from any number of perspectives – anthropological, linguistic, psychological, sociological and so on. This is a significant advantage in a text which is addressing methodological issues germane to a number of subjects and disciplines. Humour might be thought distracting, but in fact I want to reduce the distractions which can derive from using substantive topics and issues as exemplars. By using humour as the subject of analysis, I want to ensure that attention remains focused on how to analyse data, and not on what is being analysed. Needless to say, the examples used are not intended to be taken too seriously. My main examples, from Victoria Wood and Woody Allen, are chosen for their entertainment value rather than any academic import.

Two other advantages accrue from using humour as a subject for analysis. Humour often turns on ambiguities in meaning, and therefore raises some of the central problems in analysing qualitative data. In particular, it precludes a merely mechanical approach to analysing data. Humour is also an experience which suffers from dissection: analysis kills humour, just as surely as vivisection kills the frog. This underlines the limits (and limitations) of analysis, which can describe, interpret and explain, but cannot hope to reproduce the full richness of the original data.

Familiarity with the data is also important because it is a prerequisite of qualitative analysis. This presents a problem in teaching qualitative analysis, which typically deals with large volumes of data. My 'solution' is to teach analytic procedures through very limited sets of data, with which students can become thoroughly familiar. Although this has drawbacks, I think it gives more feel for what qualitative analysis is about. It avoids students being overwhelmed by a mass of material, and gives them more confidence that they can analyse data effectively. It also helps to focus on method, and counter the almost fetishistic concern with the sheer volume of material produced by qualitative methods. Using limited data in this way may seem like dancing on the head of a pin; but, after all, it is learning the dance that matters, and not the pin.

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### x Qualitative data analysis

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### Introduction

- Q. What colour is snow?
- A. White.

To most of us, the answer 'white' may seem satisfactory, but to an Eskimo it would seem a joke: Eskimos distinguish between a wide variety of 'whites' because they need to differentiate between different conditions of ice and snow. So it is with qualitative data analysis: in a recent review of the field, Tesch (1990) distinguishes over forty types of qualitative research (Illustration 1.1). Just as the Eskimos distinguish varieties of white, so researchers distinguish varieties of qualitative analysis. There is no one kind of qualitative data analysis, but rather a variety of approaches, related to the different perspectives and purposes of researchers. To distinguish and assess these different perspectives fully would be a formidable and perhaps rather fruitless task, particularly as the boundaries between different approaches and their relation to what researchers actually do when analysing data is far from clear. But is there a basic core to qualitative research, as there is a basic colour 'white', from which these different varieties are derivative?

varieties are derivative?

Different researchers do have different purposes, and to achieve these may pursue different types of analysis. Take a study of the classroom, for example. An ethnographer might want to describe the social and cultural aspects of classroom behaviour; a policy analyst might want to evaluate the impact of new teaching methods; a sociologist might be most interested in explaining differences in classroom discipline or pupil achievement – and so on. Different preoccupations may lead to emphasis on different aspects of analysis. Our ethnographer may be more interested in describing social processes, our policy analyst in evaluating results, our sociologist in explaining them. This plurality of perspectives is perfectly reasonable, remembering that social science is a social and collaborative process (even at its most competitive), in which (for example) descriptive work in one project may inspire interpretive or explanatory work in another (and vice versa).

### Illustration 1.1 Different approaches to qualitative research

action research case study clinical research cognitive anthropology collaborative enquiry content analysis dialogical research conversation analysis Delphi study descriptive research direct research discourse analysis document study ecological psychology educational connoisseurship and criticism educational ethnography

ethnographic content analysis ethnography ethnography of communication ethnomethodology ethnoscience experiential psychology field study focus group research arounded theory hermeneutics heuristic research holistic enthnography imaginal psychology intensive evaluation

interpretive interactionism interpretive human studies life history study naturalistic inquiry oral history panel research participant observation participative research phenomenography phenomenology qualitative evaluation structural ethnography symbolic interactionism transcendental realism transformative research

Source: Tesch 1990: 58

Given the multiplicity of qualitative research traditions, one might reasonably wonder whether there is sufficient common ground between the wide range of research traditions to permit the identification of anything like a common core to analysing qualitative data. On the other hand, the very notion of 'qualitative' data analysis implies, if not uniformity, then at least some kind of family kinship across a range of different methods. Is it possible to identify a range of procedures characteristic of qualitative analysis and capable of satisfying a variety of research purposes, whether ethnographic description, explanation or policy evaluation is the order of the day? The relevance and applicability of any particular procedure will, of course, depend entirely on the data to be analysed and the particular purposes and predilections of the individual researcher.

Having identified a multiplicity of perspectives, Tesch manages to reduce these to three basic orientations (1991: 17–25). First, she identifies 'language-oriented' approaches, interested in the use of language and the meaning of words – in how people communicate and make sense of their interactions. Second, she identifies 'descriptive/interpretive' approaches, which are oriented to providing thorough descriptions and interpretations of social phenomena, including its meaning to those who experience it. Lastly, there are 'theory-building' approaches which are orientated to identifying connections between social phenomena – for example, how events are structured or influenced by how actors define situations. These distinctions are not water-tight, as Tesch herself acknowledges, and her classification is certainly contestable. No one likes to be pigeon-holed (by some one else), and nothing is more likely to irritate a social scientist than

to be described as atheoretical! However, Tesch does suggest a strong family resemblance between these different research orientations, in their emphasis on the meaningful character of social phenomena, and the need to take this into account in describing, interpreting or explaining communication, cultures or social action.

Thus encouraged, we can look for a basic core of qualitative data analysis, though not in some consensus about research perspectives and purposes, but rather in the type of data we produce and the way that we analyse it. Is there something about qualitative data which distinguishes it from quantitative data? And if qualitative data does have distinctive characteristics, does this also imply distinctive methods of analysis? My answer to both these questions is a qualified 'yes'. In Chapter 2 I distinguish between qualitative and quantitative data in terms of the difference between meanings and numbers. Qualitative data deals with meanings, whereas quantitative data deals with numbers. This does have implications for analysis, for the way we analyse meanings is through conceptualization, whereas the way we analyse numbers is through statistics and mathematics. In Chapter 3, I look at how we conceptualize qualitative data, including both the articulation of concepts through description and classification, and the analysis of relationships through the connections we can establish between them.

I said my answers were qualified, for though we can distinguish qualitative from quantitative data, and qualitative from quantitative analysis, these distinctions are not the whole story. We can learn as much from how meanings and numbers relate as we can from distinguishing them. In social science, number depends on meaning, and meaning is informed by number. Enumeration depends upon adequate conceptualization, and adequate conceptualization cannot ignore enumeration. These are points I take up in Chapters 2 and 3. My aim is to introduce the objects and methods of qualitative analysis, as a basis for the subsequent discussion of procedures and practice.

It is easy to exaggerate the differences between qualitative and quantitative analysis, and indeed to counterpose one against the other. This stems in part from the evolution of social science, most notably in its efforts to emulate the success of the natural sciences through the adoption of quantitative techniques. The fascination with number has sometimes been at the expense of meaning, through uncritical conceptualizations of the objects of study. Nowhere is this more apparent than in the concepts-indicators approach, where specifying the meaning of concepts is reduced to identifying a set of indicators which allow observation and measurement to take place – as though observations and measurement were not themselves 'concept-laden' (Sayer 1992). The growing sophistication of social science in terms of statistical and mathematical manipulation has not been matched by comparable growth in the clarity and consistency of its conceptualizations.

Action breeds reaction. In response to the perceived predominance of quantitative methods, a strong undercurrent of qualitative research has emerged to challenge the establishment orthodoxy. In place of the strong stress on survey techniques characteristic of quantitative methods, qualitative researchers have employed a range of techniques including discourse analysis, documentary analysis, oral and life histories, ethnography, and participant observation. Nevertheless, qualitative research is often cast in the role of the junior partner in the research enterprise, and many of its exponents feel it should have more clout and more credit. This encourages a posture which tends to be at once defensive of qualitative methods and dismissive of the role of the supposedly senior partner, quantitative research.

Beneath these rivalries, there is growing recognition that research requires a partnership and there is much to be gained from collaboration rather than competition between the different partners (cf. Fielding and Fielding 1986). In practice, it is difficult to draw as sharp a division between qualitative and quantitative methods as that which sometimes seems to exist between qualitative and quantitative researchers. In my view, these methods complement each other, and there is no reason to exclude quantitative methods, such as enumeration and statistical analysis, from the qualitative toolkit.

Reconciliation between qualitative and quantitative methods will undoubtedly be encouraged by the growing role of computers in qualitative analysis. The technical emphasis in software innovation has also encouraged a more flexible and pragmatic approach to developing and applying qualitative methods, relatively free from some of the more ideological and epistemological preoccupations and predilictions dominating earlier discussions. The development of software packages for analysing qualitative data has also stimulated reflection on the processes involved, and how these can be reproduced, enhanced or transformed using the computer. The development of computing therefore provides an opportune moment to consider some of the main principles and procedures involved in qualitative analysis. I outline the general contribution of the computer to qualitative analysis in Chapter 4. In doing so, I take account of how computers can enhance or transform qualitative methods. This is a topic I address explicitly in Chapter 4, but it also forms a recurrent theme throughout the discussion of analytic procedures in the rest of the book.

On the other hand, software development has also provoked concerns about the potentially damaging implications of new technological forms for traditional methods of analysis. Some developers have emphasized the potential danger of the software they themselves have produced in facilitating more mechanical approaches to analysing qualitative data, displacing traditional analytic skills. This concern has highlighted the need to teach computing techniques within a pedagogic framework informed by documented analytic principles and procedures. Paradoxically, however,