



SECOND EDITION

# QUALITATIVE DATA ANALYSIS WITH NVIVO

PAT BAZELEY & KRISTI JACKSON

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QUALITATIVE DATA  
ANALYSIS WITH NVIVO



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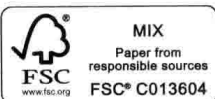
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# About the authors

Pat Bazeley (PhD, Macquarie University) provides research training and consulting through her company, Research Support P/L, to academics, graduate students and practitioners from a wide range of disciplines in universities and government agencies both within Australia and internationally. Additionally, she has a part-time appointment as Associate Professor in the Centre for Primary Health Care and Equity at the University of New South Wales. Since graduating in psychology she has worked in community development, project consulting and in academic research development. Her experience with research design and methodology broadly across the social sciences includes over 20 years of providing training in the use of QSR software for qualitative and mixed methods research. Her research and publications focus on qualitative and mixed methods data analysis, and on the development and performance of researchers.

Kristi Jackson (MEd, University of Vermont) was Vice President of an evaluation research firm in Denver, Colorado until 2002, when she founded *Queri*, a qualitative research consulting company. *Queri* provides assistance to large entities (e.g., the Centers for Disease Control and Prevention, the National Institutes of Health, and the US Government Accountability Office) as well as many small, nongovernmental organizations in rural and urban settings. Her conference presentations and published papers often focus on the implications of the growing importance of qualitative data analysis software, and she is currently studying conceptualizations of qualitative research transparency among researchers who do and do not use this genre of software. In her 17 years of experience as an evaluation researcher, she served as principal investigator, co-investigator or advisor on a diverse array of qualitative research projects, primarily in education and health.

# Preface to the second edition

Since the publication of the first edition of this book, the world of qualitative data analysis has changed yet again. The tools in NVivo have adapted to the increasing popularity of mixed methods research, research involving use of multimedia, and the greater involvement of teams in qualitative projects. They have adapted, as well, to a world-wide increase in the digitization of data and new modes of digital communication, for example, through social media sites such as Facebook, LinkedIn, Twitter and YouTube. While the impact of these advancements in the software required additions to this book, another wave of change also informs this edition. Where the emphasis in early qualitative data analysis software was on coding as a primary strategy, this emphasis is progressively shifting to provision of tools to facilitate thinking, linking, writing, modelling and graphing in ways that go beyond a simple dependence on coding. As a response to these many developments, in this edition we include new chapters on working with multimedia sources, datasets from surveys, and data from social media sites; using NVivo for your literature review; ways to leverage visualizations to explore your data and communicate your findings; and on strategically using NVivo in the context of team research.

One of the consequences of our need to include new material in this edition of the book, compared to the first, is a subtle shift in focus from approaches to undertaking a qualitative project in the context of one or another methodological approach, supported by NVivo, to a more direct focus on the tools NVivo provides and how these can support qualitative research more generally. For readers who found the first edition helpful methodologically as well as technologically and who notice the change (and for others who would benefit from help with methods), Pat offers the extended alternative of a book dedicated to providing down-to-earth help for researchers working with qualitative data, *Qualitative Data Analysis: Practical Strategies* (Sage, 2013). Each book is, in many ways, a companion to the other. Our primary goal in this book remains, however, to help you *thoughtfully* make use of the software as you apply it strategically to your data.

Qualitative data analysis software, and NVivo in particular, has become increasingly flexible in adapting to the demands of modern research projects. An

unfortunate but unavoidable consequence of increasing flexibility is increased complexity. QSR International, the developers of NVivo, have responded by providing guidance for users in various forms – video tutorials, webinars, and extensive, detailed on-line Help – all of which are extremely valuable if you know what to ask for, and for stimulus in using the software. They are less helpful in providing guidance as to what tools to choose for a particular research problem, and in guiding the user through the strategies needed to work right through a research task without becoming lost in the multiple options available.

The multiplicity of approaches to analysis of qualitative data poses particular problems not only for writers of Help files and tutorials, but also for a book of this nature, with the purpose of walking you through a project: How best to organize and sequence the tasks and the introduction of different tools? As there is no standard pathway through a project, we don't expect everyone to work straight through this book. Nevertheless, the book is organized along broad sequential stages in working from raw data through conceptualization to strategies for analysis. We attempt, therefore, to take you right through a series of actions to complete necessary steps along the most common pathways travelled with each primary tool, source of data, or approach, but you will need to step forward or back at various times to find the instruction, suggestions or discussion *you* most need for particular points in *your* project. At the same time, at each step we point you to where you might find additional ideas and assistance in case your journey requires a digression or raises a complication.

Following the chapter-by-chapter sequence will take you through all the elements you need to consider: this might be the best general approach for someone new to the software. Those who already have some knowledge of the software from earlier versions might use the brief description of each chapter or the table of contents to identify where they might find the major discussion of a particular topic within the chapters. A more detailed index is provided, of course, at the end of the book. A companion website ([www.sagepub.co.uk/bazeleynvivo](http://www.sagepub.co.uk/bazeleynvivo)) accompanies the book, providing you with access to sample data, additional technical help, links to useful resources, and updates to information in this book. The Help files provided by QSR are both detailed and comprehensive, and they are always updated as the software is updated. They can be consulted, therefore, to resolve any discrepancies between our instructions or screen shots and the software that might result from ongoing updates to the software.<sup>1</sup>

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<sup>1</sup> The current version of the NVivo software, at the time of writing, was version 10 for Windows. Check the companion website also for supplementary notes to assist with features changed or added in later versions.

# Chapter outline

*Chapter 1: Perspectives: Qualitative computing and NVivo* – Settle in with a little grounding in the history and relevance of this genre of software to help you prepare for the journey. After considering the potential advantages and disadvantages of using software for this type of work, we take you on a gentle tour of an existing database to start putting things into perspective.

*Chapter 2: Starting out, with a view ahead* – Start a project in NVivo well before collecting or constructing data if you can. Begin with a question and your thinking around that question, or perhaps with a theory. Craft an early model of these ideas, add some literature (or any source material), and start writing memos. Create links to help trace the connections in these early ideas. By starting your project in NVivo earlier rather than later, you will lay a sure foundation for working with data and verifying the conclusions you draw from them.

*Chapter 3: Designing an NVivo database* – Prepare for the work ahead by reflecting on what a 'case' might be in your research and tie this to the strategies you employ as you prepare your data. While the software supports a wide range of text, audio, video, picture, spreadsheet and web page formats, you can do things to prepare the data (text-based files in particular) to maximize the benefit of some of the software tools you might use later.

*Chapter 4: Coding basics* – Discover the day-to-day activities of reflecting on the data and coding as you work through your first sources. Connect this coding process with the strategies you learned for memoing and linking, as ideas take shape. Observe and manage your use of inductive and deductive coding strategies as you learn the basics of creating codes (nodes) and coding.

*Chapter 5: Going on with coding* – Go beyond the basics to start developing a coding system designed to address your research questions. Learn to move nodes, combine and rename them. Consider different conceptual approaches to creating the system and learn some tips to keep you from creating a voluminous, chaotic coding structure. Experiment with automated coding strategies (the auto code and text-mining tools) before taking steps to review your coding by standing back and then coming close.

*Chapter 6: Cases, classifications and comparisons* – Learn how to store demographic and other kinds of quantitative information as attributes of cases. Learn different ways of entering these into your project, and how to use them to make comparisons and examine patterns in your data.

*Chapter 7: Working with multimedia sources* – Seriously consider why you might or might not want to use audio, video, images and web pages as material in your project and prepare yourself for a host of methodological considerations. Then learn how to capture, import, code and link this material and examine the way it exports as either Word or html files.

*Chapter 8: Adding reference material to your NVivo project* – Understand the opportunities and hazards associated with importing and coding pdf files, and see how to import material from bibliographic databases and web pages. Consider the many different reasons why you might use reference material and push your thinking beyond a basic literature review.

*Chapter 9: Datasets and mixed methods* – Explore the new ways you can combine data types in NVivo, in particular through the use of structured questionnaires, web surveys, and social media that typically contain both forced-choice and open-ended fields. Learn how to prepare, import, code and sort such data, and read an assortment of examples to get you thinking further about different types of data and the rationale for using them in NVivo.

*Chapter 10: Tools and strategies for visualizing data* – Apply the visualization tools in NVivo to think through your cases, concepts, relationships and theories. Models, charts, graphs and diagrams can also be used to display your results and communicate findings, and while in the software they also provide you with direct access to the data they represent.

*Chapter 11: Using coding and queries to further analysis* – Consider the corpus of these sophisticated search tools and the various ways you can use them to search for relationships and patterns in the data. This might be the culmination of your analytic journey, or you might experiment with a few queries early on in the project. Learn the framework for the overall structure and purpose of the queries, before turning to other chapters where a contextually grounded example of each of the seven queries is located.

*Chapter 12: Teamwork with NVivo* – Dive into the exciting and challenging experience of team research and learn how NVivo can help with organizing team activities and framing the analytical process. Some tools in NVivo are specifically designed for team research and others should be addressed anew in the context of team research. Practical help includes strategies for tracking team member contributions, ways of coding as a team, combining copies of databases and comparing the coding of different researchers.

# Acknowledgements

We are pleased to specifically acknowledge the original developers of the software, Lyn and Tom Richards, who launched both of us on this journey back in the early 1990s. While we learned and changed from our interactions with other researchers through the years, the entire journey would never have started without Lyn and Tom, their enthusiasm, and especially their vision for qualitative research evidenced in the intellectual foundation of NVivo. More recently, we owe thanks to the many staff members at QSR, especially Marcus Ogden for his tireless responses to our enquiries and suggestions. The march ahead with new ways of thinking about qualitative data is also due to the many dedicated researchers around the world who continue to explore, advance, challenge and discuss the role of software in qualitative research. While we owe a great deal to the collective work of our colleagues and the stimulation of our clients, there are too many to mention specifically. Know that we are thankful for the many ideas you provide in our ongoing conversations; they most certainly helped shape this book. We are indebted, too, to the team at Sage, especially Jai Seaman and Anna Horvai, for their encouragement and support for this second edition of this book.

Writing about constantly evolving software is always time pressured. This collaboration of two long-term teachers of research using software has been built on a shared perspective on what software can and cannot do, and how best to use software to support research. On a more personal level, it has been built on mutual respect, tolerance and good humour. Each of us learned from the other, made demands on the other, and supported the other. For Pat, after a long and intense period of solo writing, this has been a refreshing experience. This collaboration made this revision possible, with friendship surviving a tight time frame not only intact but strengthened: thank you, Kristi!

Starting farther back in her own voyage, Kristi would also like to acknowledge her parents, Buzz and Lainie: thank you for preparing me with perhaps the most important provision for the ongoing journey – endless encouragement to pursue my interests. I also thank one very dedicated and talented Pat Bazeley for such a happy collaboration.



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