QUALITATIVE DATA ANALYSIS WITH NVIVO

Sara Miller McCune founded SAGE Publishing in 1965 to support the dissemination of usable knowledge and educate a global community. SAGE publishes more than 1000 journals and over 800 new books each year, spanning a wide range of subject areas. Our growing selection of library products includes archives, data, case studies and video. SAGE remains majority owned by our founder and after her lifetime will become owned by a charitable trust that secures the company's continued independence.

Los Angeles | London | New Delhi | Singapore | Washington DC | Melbourne

WINDOWS & MAC

3rd EDITION

QUALITATIVE DATA ANALYSIS WITH NVIVO

KRISTI JACKSON & PAT BAZELEY

⑤SAGE

CONTENTS

FIGURES

TABLES

ABOUT THE AUTHORS

Kristi Jackson is a Qualitative Senior Scientist at Optum (www.Optum.com), where she supports a broad range of qualitative studies in Patient Reported Outcomes (PRO). PRO studies are designed to better understand patients' experiences related to conditions, their treatments, and the healthcare system. She has a background in evaluation research and in 2002 she founded Queri (www.Queri.com) to provide resources and coaching to NVivo users world-wide. With over 25 years of experience in qualitative research design, data collection, analysis, reporting, and stakeholder relations, she is an expert in a diverse array of qualitative methodologies. Her theoretical frames tend to be sociological, and her research interests include conceptualizations of qualitative research transparency and the constantly changing spaces where qualitative researchers and technologies meet.

Pat Bazeley is Director of Research Support P/L and Adjunct Professor in the Translational Research and Social Innovation group at Western Sydney University. Since graduating in psychology, she has worked in community development, project consulting and in academic research development. For almost 30 years, Pat has been providing research training and serving as project consultant to academics, graduate students, and practitioners representing a wide range of disciplines across Australia and internationally. Her particular expertise is in helping researchers to make sense of qualitative, survey, and mixed methods data, and to use computer programs for management and analysis of data. Pat's research has focused on qualitative and mixed

methods data analysis, the development and performance of researchers, and the wellbeing of older women. She has published books, chapters, articles, and reports on these topics. She serves on the Editorial Boards of the *Journal of Mixed Methods Research* and *Qualitative Health Research*, and was 2015–2016 President of the Mixed Methods International Research Association.

PREFACE TO THE THIRD EDITION

WHAT MAKES THIS BOOK INNOVATIVE?

Along with the materials from the second edition that researchers found most helpful, we incorporated a wealth of new information and approaches in this third edition:

- Easy-to-use instructions and screen shots that explicitly assist both Windows and Mac users.
- Rich, methodological discussions in the first half of each chapter to help prepare you to think qualitatively in relation to the technology in the second half of the chapter.
- Discussions that complement the NVivo Help so you understand why and when you might use various tools instead of just how to use them.
- Explanations regarding the most sophisticated options and creative combinations of tools.
- A multipronged approach to help all users understand the Queries in NVivo:
    - Specific examples in the context of each chapter.
    - A chapter on Queries that provides a brief textual and visual orientation to each one.
    - Screen shots that map the Query interface options in both Windows and Mac.
- A new concluding section of each chapter with Takeaways to help you reflect on the material in the chapter and to assist instructors who use the book in methods courses.

- A new chapter on Twitter, Facebook, YouTube, and web pages, based on the burgeoning analysis of data generated in online communities.
- Pointers to relevant materials in other Chapters, including page numbers when relevant.
- An expanded set of online resources (https://study.sagepub.com/jackson3e), including videos, sample projects and a range of supplementary materials that exceed the size limitations of the book.

This third edition of *Qualitative Analysis with NVivo* is designed for qualitative researchers who work on their own and are looking for support. It is also ideal for qualitative researchers working in teams, instructors incorporating NVivo into their qualitative methods courses, and users transitioning from earlier versions of the software. We carefully crafted the chapters to accommodate a range of learning styles via conceptual discussions, specific clicks, visualizations, research ideas, examples from other researchers, and sample project data. In addition to our 40+ years of combined experience working with a range of NVivo users, in this third edition we also drew from the expertise and feedback of many QSR Platinum NVivo Trainers to help clarify our narrative and expand on our examples (see the Acknowledgements page for names and contact details).

HOW TO USE THIS BOOK

The average user of any software program typically accesses only a small portion of its capabilities; this is no doubt true for users of NVivo also. If you are using NVivo for a small descriptive project, you can work without having to learn complex procedures, but if you are undertaking complex analytical tasks, you can find the additional tools you need. Choices about what tools to use and how to use them is entirely up to you. Although the chapters of this book can be fluidly followed in chronological order, you might find yourself jumping around among them based on your needs. The table below shows the structure to guide your customized journey.

ORGANIZATION OF THE BOOK

Start here if you are …	Chapter
… serious about using the book strategically and need to know how to install the software, create a project, and develop Maps, Memos, Annotations, Memo Links, See Also Links, and Hyperlinks.	1. Where to begin?
… interested in getting a better handle on how all of the pieces of the NVivo Project fit together and the implications this has on the way you format Files. This will also help you eliminate tools that you do not need.	2. Designing an NVivo Project
… ready to learn all the basics of coding in NVivo and also want tips and tricks for thinking about how to develop your codes.	3. Coding foundations

(Continued)

(Continued)

Start here if you are ...	Chapter
... confident with the basic skills of creating and managing Nodes but want to learn about all the bells and whistles, including (but not limited to) management of Node hierarchies, automation, and text mining.	4. Advanced coding
... comfortable with the tactics you will use in the database to code and want to dive into the ways NVivo matches any quantitative or demographic data with the qualitative data.	5. Cases, Classifications, and comparisons
... taking a mixed methods approach and already understand the way NVivo handles qualitative data (primarily through coding), Cases, Classifications, Attributes, and Values, but want to apply and extend this knowledge (including surveys combining qualitative and quantitative data).	6. Surveys and mixed methods
... unclear about the way NVivo helps find patterns in your data (usually based on the prior work you do to read, write about, and code your data).	7. Querying data
... diving into NVivo with the intent of conducting a literature review or want to see the unique issues in handling pdf Files.	8. Literature reviews and pdf Files
... focusing on the most common, non-text data types.	9. Working with multimedia Files
... interested in strategies for examining user-generated content in online communities.	10. Twitter, Facebook, YouTube, and web pages
... planning for the structure and process of a team project and want to begin with some tips before learning the technical details of managing a database.	11. Teamwork

ORGANIZATION OF EACH CHAPTER

Conceptual introduction followed by clicks

As we argue in the opening section of the first chapter, we ardently support an understanding of methods-with software as mutually constituting activities. This position is in alignment with current understandings about the social shaping of technology and encourages researchers to move beyond simple binaries such as researcher/technology, method/software, and manual/digital (Jackson, 2017). Despite this position, we purposefully (and somewhat warily) separate most of the methodological/theoretical discussions in each chapter from the descriptions of NVivo tools. This structure is based on two factors that swayed our approach in this third edition of the book:

- The commitment to help both Windows and Mac users in a single publication while making it easy for users of each platform to ignore irrelevant material without constantly flipping back and forth through pages.
- Feedback from qualitative methods instructors who use this book in their courses and want to more easily direct students to the appropriate section of the chapter, depending on whether they need methodological help and guidance or assistance with specific software tools.

Four sections

The following guide to the four subsections within each chapter will help you find relevant material if you have a specific question or issue to investigate about a topic (e.g., coding).

- **Section 1** introduces the purpose of the chapter and sets the stage for the subsequent conceptual and methodological detail. We end this introductory section with a brief explanation of related material in other chapters to help redirect your attention, in the event that another chapter is more closely related to your immediate needs.
- **Section 2** explores conceptual and methodological grounding through a range of traditions in qualitative research practice. Much of this material is designed to prompt ideas about handling data whether you use Qualitative Data Analysis Software (QDAS) or not. This section is not intended to be exhaustive but provides enough diversity and variation in methodologies and strategies to help avoid cookie-cutter approaches to handling qualitative data. We sometimes address methodological debates and we also occasionally articulate our stances on professional practice. The online resources (https://study.sagepub.com/jackson3e) will help you dig more deeply into the literature.
- **Section 3** details the NVivo tools that can facilitate your analysis and provides instructions on clicking through the most frequently used options. Instructions common to Windows and Mac users are in purple font and where they diverge you will follow grey font if you are using Windows and black font if you are using Mac. Furthermore, we provide and update these instructions in the online resources. Both Mac and Windows users can download a Click Guide to all of the instructions pertaining to the material we cover in the book (https://study.sagepub.com/jackson3e).
- **Section 4** wraps things up with Takeaways including:

  ○ Key points from the chapter.
  ○ Tips, challenges, and warnings relating to tools covered in the chapter.
  ○ Pointers to applicable videos.
  ○ Practice questions that help reinforce the methodological and technical material while exploring the terrain where researchers and technologies meet.

ONLINE RESOURCES

The website provides a wealth of additional material that will be updated as the NVivo interface changes. You will find a complete compendium of clicking instructions, videos, sample projects, and other supplementary materials (https://study.sagepub.com/jackson3e).

ONLINE RESOURCES

This book is supported by a wealth of carefully curated online resources that support your learning and research, available at **https://study.sagepub.com/jackson3e**

Watch screencast video tutorials on how to navigate NVivo, with top tips from co-author Kristi Jackson about how to use the main tools the software offers.

Learn how to master NVivo with clear, up to date, click by click instructions that show you how to use the software in Mac and Windows.

Explore NVivo at your own pace with sample project files from authors.

Gain insight from watching videos of co-author Pat Bazeley discussing tips and hints for using NVivo.

Connect with a network of experts from the NVivo community who can help you tackle your project head on.

Read handy guidelines on how to use NVivo that offer practical support and information about coding qualitative data.

ACKNOWLEDGEMENTS

PUBLISHER

The authors welcome the opportunity Sage provided to create a new and improved third edition of this book and appreciate the work of our editor, Jai Seaman, to guide us through the process.

MAC INSTRUCTIONS

The commitment to develop a book that specifically assists both Windows and Mac users came to fruition in large part thanks to our colleague and friend, Clare Tagg. The Mac instructions in the book and the logical order of the material were influenced by her keen eye for detail and her balanced view of user experience. Clare's contact information is provided below if you would like to reach her.

REVIEWERS

We are thankful for the assistance of some of the QSR Certified Platinum NVivo trainers who work with individuals and organizations around the world as instructors, coaches, and mentors. They carefully reviewed the chapters, pointed out gaps in our explanations, improved the language, and added examples from their research to bring the instructions to life. Together, Kristi, Pat, and these additional trainers/consultants

represent many decades of experience working with or teaching others how to use NVivo. This book benefited from our combined expertise and our evolving collaboration. We provide basic contact information for all those involved in the development of this edition, in the event you would like to reach out for additional training or consultation. Contributors in alphabetical order by first name:

- Amma Buckley   a.buckley@curtin.edu.au
- Anuja Cabraal   anuja.cabraal@gmail.com (http://anujacabraal.wordpress.com/)
- Ben Meehan   benm@qdatraining.eu (www.qdatraining.com)
- Christina Silver   christina.silver@qdaservices.co.uk (www.fivelevelqda.com)
- Clare Tagg   clare@taggoram.co.uk (www.taggoram.co.uk)
- Claude Julie Bourque bourque.cj@gmail.com (http://ca.linkedin.com/in/cjbourque)
- Elif Kuş Saillard   elif@namqda.com (www.namqda.com)
- Fiona Wiltshier   fiona@concorsco.com (www.concorsco.com)
- Hideki Nakazato   nakazato@konan-u.ac.jp (researchers.adm.konan-u.ac.jp/html/208_en.html)
- Jenine Beekhuyzen   jenine@adroitresearch.com.au (www.adroitresearch.com.au)
- Jennifer Patashnick   jennifer.patashnick@qdaservices.com
- Kristi Jackson   kjackson@queri.com (www.queri.com)
- Laura Lagendyk   laura@quoteswork.ca (www.quoteswork.ca)
- Linda Sweet   (www.flinders.edu.au/people/linda.sweet)
- Lyn Lavery   lyn@academic-consulting.co.nz (www.academic-consulting.co.nz)
- Marie-Hélène Paré   info@mariehelenepare.com (www.mariehelenepare.com)
- Pat Bazeley   (www.researchsupport.com.au)
- Patsy Clarke   patsy@qualitania.com (www.qualitania.com)
- Stuart Robertson   info@robertsoneducational.com (www.robertsoneducational.com)

In addition to these independent trainers, the staff at QSR International (developers of NVivo) have been responsive and helpful as we crafted this independently written and published book. We would especially like to thank Silvana di Gregorio for her thoughtful review and excellent suggestions throughout. Nearly two decades of collegial interactions with Silvana have proven again and again that her professionalism and her camaraderie are top notch. We offer our sincere gratitude for her attention to the book.

ADDITIONAL THANKS

Kristi Jackson: I took more than one 'dissercation' while working on my PhD; journeys under the guise of a vacation that provided opportunities to write intensively without distractions. This book followed suit with some 'bookations'. Thanks to these playful, supportive, and low-maintenance friends/colleagues, I was able to survive the long hours. I adore and appreciate all of you:

1

WHERE TO BEGIN?

Maintaining a craft-like approach to research can help to open up critically imaginative ways of working with computers (as techniques of representation) and avoiding the tendency for these programmes to become black-boxes or demonised gadgets. (Hinchliffe, Crang, Reimer, & Hudson, 1997: 1123)

SECTION 1.1: INTRODUCTION TO QUALITATIVE RESEARCH WITH NVIVO

Before diving into NVivo, it is important to understand the contexts in which this software evolved and the various arguments researchers have made about the role of software in qualitative research. You are likely to hear a range of perceptions about the utility of the software (or problems with using it). Having a background in this debate will help you decide where you stand and will provide some ideas as you start shaping your claims about the use of NVivo in your research. After this introduction, we encourage you to play with your ideas and your data (this could be supplementary data, like literature). You do not need an exceptionally clear idea about where you are going yet. This chapter is simply designed to get you started and get you thinking.

In this chapter you will

- Learn the basic arguments exchanged between camps regarding the utility of software like NVivo (summarized via the metaphors of snake oil, silver bullet, and cart/horse).
- Find out why we advocate a methods-with mantra (Jackson, 2017) rather than a methods-first mantra.
- Consider strategies for getting started and thinking about your data.
- Discover how to install the software.
- Understand how to get familiar with the software by exploring the Sample Project.
- See how to create a Project of your own.
- Learn tactics for reflecting on your ideas with Maps, Memos, See Also Links, and Hyperlinks.

Qualitative research

Qualitative methods are a powerful choice when you want to understand details of a process or experience, need more information to determine the boundaries or characteristics of the issue being investigated, or assess – for a variety of reasons – that the best information available is non-numeric (e.g., text or visual). The questions that could benefit from a qualitative approach emerge from many fields such as criminal justice, education, finance, health care, marketing, organizational development, public policy, sports, and user experience. For example:

- After participating in an alternative drug treatment programme, what do incarcerated young adults think about their opportunities after release?
- How does a customized, after-school biology programme for girls influence their interest in a career in science?
- How do company reports explain 'negative news' (e.g., losses, legal challenges, declining share values) to shareholders?
- What are physician perceptions of barriers to diagnosing and treating diabetes among immigrants?
- Why does a specific marketing strategy for fire alarm/smoke detectors work well in urban areas but not in rural areas?
- When organizational leaders incorporate meditation practices into their businesses, how do relationships between employees change?
- What processes need to be in place for health impacts to be considered when infrastructure development is being planned?
- What factors are taken into account before a professional gymnast considers moving away from home for intensive coaching?
- How do NVivo users perceive the relevance of a new software tool?

The diversity of fields and multitude of questions are part of the thrill of qualitative research and you will find questions that invite qualitative data and analysis around every corner as you continue building your expertise.

This 'big tent' also brings unique challenges, primarily regarding the many choices that need to be made about how to handle the data. Choices will vary depending on whether the research involves, for example, exploration, description, comparison, pattern analysis, theory testing, theory building, or evaluation. Another important choice is the methodology or combination of methodologies used, and these are constantly evolving and sometimes overlapping. They include action research, conversation analysis, ethnography, life history, grounded theory, and phenomenology. Methodologists routinely urge researchers to assess the fit between purpose and method, with the choice to use a qualitative approach being determined by the research question and purpose, rather than by prior preference of the researcher (Maxwell, 2013; Richards & Morse, 2012). The same is true regarding the use of NVivo, where tools used should be informed by the goals of the research rather than just ease of use, visual appeal or familiarity.

Origin and evolution of NVivo

Most researchers engaged in qualitative data analysis have heard of Qualitative Data Analysis Software (QDAS) or Computer Assisted Qualitative Data AnalysiS (CAQDAS) and know that NVivo is one of the options for storing, managing, and analysing qualitative data. However, few qualitative researchers are aware of how long the software has been around or know the ways in which it has been discussed alongside (or in comparison with) 'manual' methods. While you need not be an expert in the history of the various camps that debate the dangers and opportunities of using QDAS, it is wise to understand the general lay of the land and the

traditions that inform the diverse uses of NVivo. In this chapter we discuss some of this background to help you begin situating yourself amidst the diversity and we provide suggestions to help you clarify your qualitative approach and get excited about your unique research. We end by walking you through some basic steps to write about and map your research plans to help you sort through and frame your early thoughts with your research questions and your data.

The current version of NVivo is based on the work of Lyn and Tom Richards, who began developing the software in 1981. They founded Qualitative Solutions and Research (later becoming QSR International) in 1995 and since that time NVivo has retained the core features of handling text data via coding, writing, linking, adding demographics, searching for patterns, and reporting or exporting data. Since the construction of these early tools, the subsequent software developers incorporated additional capabilities to analyse a wide range of data types (pdf files, audio, video, images, surveys, reference managers, web pages, social media, etc.) with increasingly complex searches and modes of output (textual, numeric, and visual – via graphs, charts, and maps).

Three metaphors

Depending on the people you know who use NVivo, the kinds of research they do and whether you are a novice or have considerable experience with qualitative research, your impressions of the software will vary. Your use and discussion of the software will be influenced by your theoretical frameworks and research questions, the colleagues with whom you work, the types of data you handle, the modes you intend to use for communicating your results, and the stakeholders who are interested in the implications of your research. When you read accounts of QDAS – including arguments about the potential dangers and opportunities of using it – you will become aware of three metaphors in the literature. As with most metaphors, these carry a grain of truth. However, the oversimplification and subsequent strategic use of these metaphors by many authors to justify their own positions have nearly robbed them of their merits and have often turned them into clichés.

The silver bullet

The enthusiasm of the early adopters regarding the potential of QDAS was articulated by Miles and Huberman (1994), who argued that the flexible, recursive, and iterative capabilities of software provided unprecedented opportunities to challenge researcher conceptualizations. The Richards (1994) agreed and stated that as they began developing NUD*IST (subsequently becoming NVivo) their analysis 'became far surer, with provision for constant interrogation of themes. The processes of building and interrogating themes gave an impression of constant working at theory built up and peeled back in onion skin layers' (p. 164). Despite the cautions, warnings and limitations that were articulated by these same scholars, their claims have been problematically oversimplified and reiterated too narrowly. When you receive marketing materials or review research articles that describe the use of QDAS, beware of statements that argue or infer that QDAS inevitably leads to more transparent, rigorous, credible,

or accurate research. Follow the trail of such citations and you will find they are not based in trustworthy research, a comprehensive theory, or a conceptual framework.

The snake oil salesman seeks profit, not remedy

The *snake oil* metaphor was perhaps an inevitable (and sometimes warranted) push-back on the use of computers to assist with qualitative research. Early in the evolution of QDAS, Seidel (1991) warned about the 'dark side' of such software because it might prompt researchers to overemphasize volume of data or distance researchers from data. Agar (1991) said he 'kept having nightmares about two studies – a lousy computer analysis and a beautiful analysis done by hand – where the community of researchers would immediately gather around the [computer] printout and celebrate its form rather than its content' (p. 185). However, both Seidel and Agar raised these possibilities as part of the overall picture, not as an inevitability of using QDAS. Agar argued that QDAS has 'powerful and positive consequences for what we do' (p. 182) and Seidel was one of the first qualitative researchers to begin building QDAS, writing extensively on the benefits of such software. As with the overstated benefits of QDAS in the literature, use caution when reading claims that QDAS inevitably leads to more sloppy, corrupted, quantified, or mechanized research. (For a detailed example of the appropriation of these early claims, their modification and subsequent misuse, see Jackson, Paulus, & Woolf, 2018.)

Don't put the cart before the horse

Many qualitative researchers make a reasonable claim that the software can be used appropriately only insofar as it follows (rather than leads) the research methodology. The Five-Level QDA® method (Woolf & Silver, 2017) is perhaps the most detailed example of a resource that helps researchers articulate methodological strategies and walks them through the appropriate tactics in the software in order to satisfy the ultimate goals of those strategies. In many respects, this approach is in sync with the early developers of QDAS who were crafting tools that satisfied the research practices already used via 'manual' methods. The logic of this approach appeals to qualitative researchers who do not use software, those who do, and a wide array of experts in methodology. However, a (sometimes unintended) consequence of the cart/horse metaphor is that qualitative researchers who eschew the use of software for a wide range of reasons are able to justify their avoidance by putting QDAS in a permanent back seat. This methods-first mantra is slowly becoming less viable.

Our stance: *methods-with* software

The early tools developed in QDAS were an immediate and direct result of attempts to translate manual methods (using paper, pencil, highlighters, and Post-it notes) into digital tools that provide similar tactics to mark, tag, and sort. Part of the reason the methods-first metaphor continues to thrive is because of this evolution. In our research and in our consultation

with other qualitative researchers who use NVivo, we almost always begin by asking about the design and logic of the study (including the methodology) before determining which software tools to use and how we will use them (as many tools are multi-purpose). However, to assume that there is a one-directional and linear relationship between human thought and tool production (or use) is outmoded and no longer an accepted view within the sociology of technology. Researchers in a wide array of disciplines are looking more closely at the ways society and culture influence the construction of technologies and how these technologies also influence society and culture. To accept this view means accepting that our qualitative work is sometimes influenced by NVivo.

Therefore, as an alternative to the methods-first mantra, we advocate a *methods-with* mantra (Jackson, 2017). This view acknowledges the potential for mutual influence between researcher and software and urges us to let go of the fear that the software is hijacking the process. We still need to learn more about the contexts in which software influences us and with what results. Unfortunately, few studies have explicitly sought to carefully explore the spaces where qualitative researchers and technologies meet (for exceptions see Gilbert, 2002; Jackson, 2014; Saillard, 2011). Some of our reflective questions in the Takeaways section of each chapter are designed to help you think more reflexively about the role of NVivo in your work.

SECTION 1.2: CONCEPTUAL GROUNDING IN QUALITATIVE RESEARCH PURPOSES AND NVIVO

Getting ready for qualitative analysis

If you feel comfortable and familiar with qualitative research, you will see many places where NVivo mimics the handling of qualitative data through highlighting, writing notes, and connecting ideas. If you are new to qualitative research, you will learn a lot about handling qualitative data as you experiment with different software tools. While we will provide you with tips and tricks and pragmatic issues to address, much of what you learn will come through patience and experimentation.

Understand your methods

If you are coming to NVivo without first meeting qualitative methodology or methods, then you are strongly advised to read some general texts or introductory texts from within your own discipline. Then use the recommended reading lists in those texts to further explore the methodological choices available to you. Qualitative methods are a rich, diverse, and complex sphere of knowledge and practice.

Develop questions

Qualitative research often begins with a vaguely defined question or goal. It may well begin 'with a bit of interesting "data"' (Seale, Gobo, Gubrium, & Silverman, 2004: 9). Record your

early reflections as you set out. In NVivo, you can create a Memo (a research journal) to record them. They will help you maintain focus as you work, and then later to evaluate the direction you are taking. Keep notes about thoughts you have around those questions as you read, discuss, observe, or simply reflect on issues as they arise, and date these. Keeping a record will allow you to keep track of your ideas and to trace the path those ideas have taken from initial, hesitant conceptualizations to final, confident realizations.

Visualization techniques (Mind Maps and Concept Maps in NVivo) and thought experiments can also help to clarify what might be useful questions (Bazeley, 2013; Maxwell, 2013). They can facilitate your examination and framing of various camps in your areas of research or how particular theories might overlap. As you work, your initial Maps might help refine your questions (or generate new ones), so more deliberate (purposive) data gathering can occur. These visual explorations become part of your data and can be explored, managed, and tracked within NVivo. Later in this chapter we help you explore journaling and mapping tools for thinking about your project before getting to the nuts and bolts of setting up a project.

Identify assumptions

> Previous knowledge is a prerequisite to gaining understanding. Qualitative researchers who investigate a different form of social life always bring with them their own lenses and conceptual networks. They cannot drop them, for in this case they would not be able to perceive, observe and describe meaningful events any longer – confronted with chaotic, meaningless and fragmented phenomena they would have to give up their scientific endeavour. (Kelle, 1997: paragraph 4.2)

Previous knowledge brings with it assumptions about what you might find. Rather than deny their existence, you should recognize them, record them, and become aware of how they might be influencing the way you are thinking about your data – only then can you effectively control (or at least, assess) that impact. Maxwell (2013) recommends creating a 'researcher identity memo' to explore personal goals, recognize assumptions, and draw on experiential knowledge. You could add such a Memo to your research notes or create a conceptual map that captures what you are expecting to see.

Explore existing data

Data relevant to your project often exist before you make new data. Try starting with one or more of the suggestions listed here.

- *Observations of yourself and of others.* Field notes or diary records could play a significant early role. Adapt the instructions for creating a Project journal to create documents in which to record your observations.
- *Data already in the public sphere.* Examples include newspapers, novels, radio, internet, or archived data. These can provide valuable learning experiences as you master both software and analysis strategies.

- *Expository or research literature.* The belief that an inductive approach to inquiry requires researchers to come to their data without having been influenced by prior reading of the literature in their field and without bringing any theoretical concepts to the research is generally no longer seen as feasible, nor is it broadly supported. Strauss and Corbin (1998: 47) declared: 'Insights do not happen haphazardly; rather they happen to prepared minds during interplay with the data.' In many fields, qualitative researchers are expected to gain a firm grasp of the relevant literature, and for university-based research, prior understanding of the literature on the topic is an essential element of a funding application or doctoral research proposal.

How NVivo will support your analysis

NVivo provides you with a set of tools that will *assist* you in undertaking an analysis of qualitative data. The use of a computer is not intended to supplant time-honoured ways of learning from data or to diminish the role of the qualitative researcher in exploring and inter-preting rich data. NVivo was created by researchers who used precisely these kinds of manual methods. The many benefits of this technology include the ability to:

- mimic manual strategies for handling qualitative data;
- develop an efficiently searchable warehouse of data that records the choices made during analysis and can be examined and re-examined with relative ease;
- increase the efficiency of the more mundane and administrative tasks in organizing data;
- extend the longevity and reusability of data because it is not stuck in a shoebox under someone's bed, with prior insights long forgotten;
- push the boundaries of what qualitative researchers are able to do manually by providing a few tools that open new opportunities;
- improve the efficiency and effectiveness of teamwork through consistent processes that capture and combine individual work in one comprehensive Project.

NVivo continues to be developed with extensive, qualitative researcher feedback to support researchers in the diverse ways they work with data.

The average user of any software program typically accesses only a small portion of its capabilities; this is no doubt true for users of NVivo also. If you are using NVivo for a small descriptive project, you can work without having to learn complex procedures, but if you are undertaking complex analytical tasks, you can find the additional tools you need. Choices about what tools to use and how to use them are entirely up to you. There are, nevertheless, some common principles regarding the most effective use for many of the tools, regardless of methodological choices. For example, the labels used for coding categories will vary depend-ing on the project and the methods chosen, but the principles employed in structuring those categories into a branching coding system are common to many methods where coding takes place. These common principles allow us to describe in general how you might use the vari-ous tools. It is then your task to decide how you might apply them to your project.

Using NVivo during the analysis of qualitative data will help you:

- Manage data – to organize and keep track of the many messy records that go into making a qualitative project. These might include not just raw data files from interviews, questionnaires, focus groups or field observations, but also published research, images, diagrams, audio, video, web pages, other documentary sources, rough notes and ideas jotted into memos, information about data sources, and conceptual maps of what is going on in the data.
- Manage ideas – to organize and provide rapid access to conceptual and theoretical knowledge generated in the course of the study, as well as the data that support it, while at the same time retaining ready access to the context from which those data have come.
- Query data – to ask simple or complex questions of the data, and have the program retrieve from your project all information relevant to determining an answer to those questions. Results of queries are saved to allow further interrogation, and so querying or searching becomes part of an ongoing enquiry process.
- Visualize data – to show the content and/or structure of cases, ideas, concepts, sampling strategies, timelines, etc., at various stages of the interpretive process, and to visually represent the relationships among these items in a range of (often interactive) displays.
- Report from the data – using contents of the qualitative project, including information about and in the original data sources, the ideas and knowledge developed from them, and the process by which these outcomes were reached.

Although specific tools such as Nodes, Memos, and Cluster Analyses were sometimes designed with one strategy in mind, you will discover that these and other software tools can be adapted for multiple strategies. The tools are not so isolated or independent in practice and the strategies they support work best when they are carried out as integrated activities.

SECTION 1.3: USING NVIVO TO GET STARTED ON YOUR RESEARCH

We start by providing basic installation information, to ensure you are able to access the software, and we introduce you to two sample Projects to which we will be referring throughout the book. Then, in the remainder of this chapter, we help familiarize you with the software via the Sample Project and our introductory videos and then walk you through the creation of your own Project. In the process, we help you develop good practices for thinking and writing by:

- creating a Project journal;
- visualizing ideas in a Mind Map and assumptions in a Concept Map;
- importing and thinking about a pdf (or Word) file;

- writing an Annotation;
- developing a Memo;
- connecting a Memo to a File with a Memo Link;
- creating a web of connections between your evidence and your ideas with See Also Links;
- connecting your data or ideas to items outside of the project with a Hyperlink.

We also detail the steps for saving and creating backup Projects and if you do not work through this chapter in one sitting, you might skip to the final instructions about backups when you are ready to take a break.

NVivo terms used in this section

Annotation

Concept Map

Memo

Memo Link

Mind Map

NVivo Project

Hyperlink

See Also Link

Install the software and become acquainted with NVivo

Upgrading from an earlier version on the same computer

If you have an earlier version or the trial version of NVivo on your computer, you do not need to remove it before installing your new licence of NVivo. All you will need to do is enter and activate a new licence key to extend your existing licence. If, however, you have more than one version of NVivo on your system, your computer will default to open the most recent software, even if you launch from a project created in an earlier version. NVivo will then walk you through the steps to convert your older project so it can be used in the new version.

- As a result, you will have two copies of the same project in two different versions of the software. NVivo adds the name of the version to the end of the name of your Project so you can distinguish them easily, or you can rename the Project (see Chapter 11 for details about Project names, pp. 327–328).
- If you convert a Project to the new version of NVivo, you cannot reopen or resave that new copy of the Project in an earlier version of the software.

How to follow our instructions

- For NVivo clicking instructions we use purple font to indicate steps you will take in the software.
- When click instructions diverge, we use grey font for Windows users and black font for Mac users.
- When the screen shots from Windows and Mac are similar, we will use one or the other as a visual. When they are different we will label the Figure to indicate Windows or Mac.
- When a tool is available in only the Windows or Mac version of NVivo, we indicate this in the section heading with parentheses. We will also occasionally do so in the body of the text.
- To help acquaint you with these instructions, we provide two, brief videos in the online resources (https://study.sagepub.com/jackson3e) that serve as a 'Primer for following the click instructions.'

Download, install, launch, and activate

If you have not yet done so, use these instructions to download, install, launch, and activate the software (which requires an internet connection). If you were using the trial, you do not need to uninstall and reinstall the software. All you will need to do is to enter and activate a new licence key to extend your existing version.

1.a.

⇒ **www.qsrinternational.com** › **NVivo** › **Learn More** › **Select Free Trial** or **Buy Now**.
⇒ Follow the instructions to › **Download** › **Install** › **Launch** › **Activate**.

If this is the first time you launch the software, you will be asked for your name and initials to help track the work you do in the software.

- This prompt for the current user occurs once only, unless you change the default to ask for the user each time.
- More about the potential need to change this default and instructions for doing so are in Chapter 11 on Teamwork (pp. 325–326).

1.b.

⇒ After launching the software › **Sample Project** **/ Create a Copy of Sample Project** › provide a new name › **Save**.
⇒ **Quick Start Steps tab** (right hand side of the screen) › **Let's Get Started with NVivo for Windows** › watch the video.

Sample data

Two sample projects are provided throughout the book to help bring the conceptual and methodological issues to life. One project is referred to as the 'Sample Project' or the 'Environmental Change Project' and is included in NVivo; the other is an example from Pat's research and is referred to as the 'Researchers Project'. Before you begin playing with these projects, the following information will help you understand them.

Environmental Change Project

The _Environmental Change Down East_ Project explores the attitudes of individuals in 13 communities in an area of North Carolina known as 'Down East'. The goal of the data collection and analysis was to foster dialogue among stakeholders (residents, land developers, legislators, business owners, etc.) regarding community planning, land use, and sustainable development. This Project accompanies every licence as an embedded sample.

Researchers Project

The _Researchers_ Project comprises focus groups, extracts from interviews, and some other sources designed to help answer the questions of what brings people to engage in research, and what it is about their experience that keeps them researching. This Project is available in the online resources (https://study.sagepub.com/jackson3e)

In addition to these two Projects, we pull from a broad array of other studies from our own experiences, research from the literature, and research stories and examples from our colleagues. In a few instances, we also provide a vignette to help illustrate a point. When available, we provide references, but these examples tend to come from our memories of collegial conversations rather than materials that can be perused in greater detail in another publication.

NVivo's basic interface

In our subsequent instructions on clicking through the software, we almost always begin with one of the screen locations shown in Figures 1.1 and 1.2. Knowing these terms will be helpful because they also serve as the foundation on which most Project items are built.
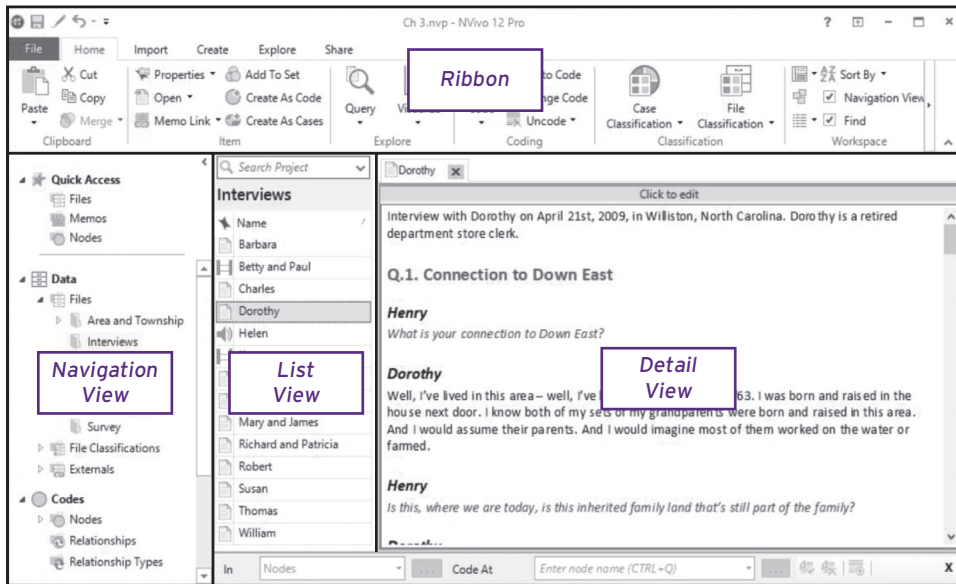
Figure 1.1   NVivo for Windows main interface: *Ribbon*, *Navigation View*, *List View*, *Detail View*
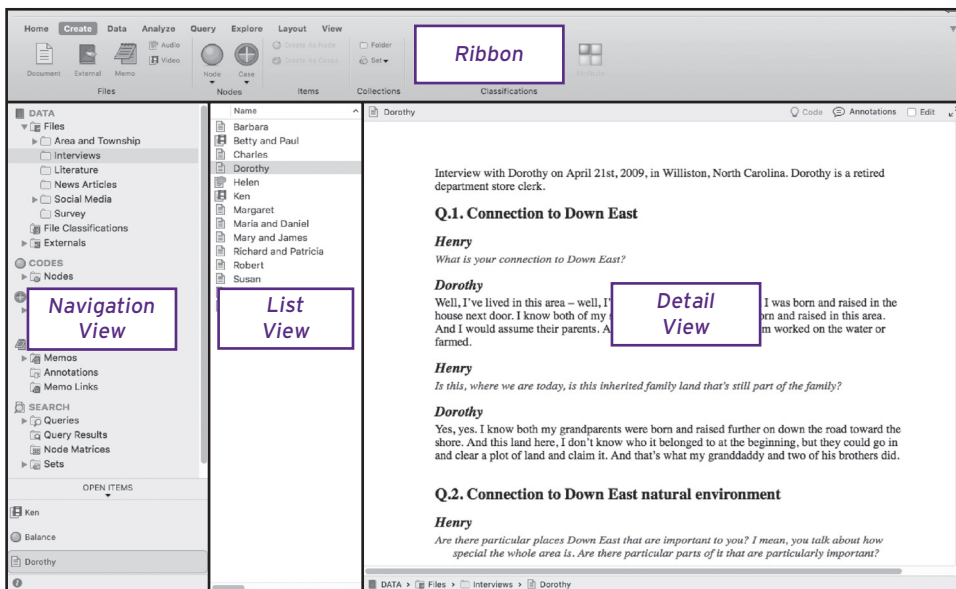
Figure 1.2   NVivo for Mac main interface: *Ribbon*, *Navigation View*, *List View*, *Detail View*

In the *Navigation View* on the left side of the screen (Figure 1.3) there are standard buttons and subfolders (Windows users also have a customizable Quick Access area).
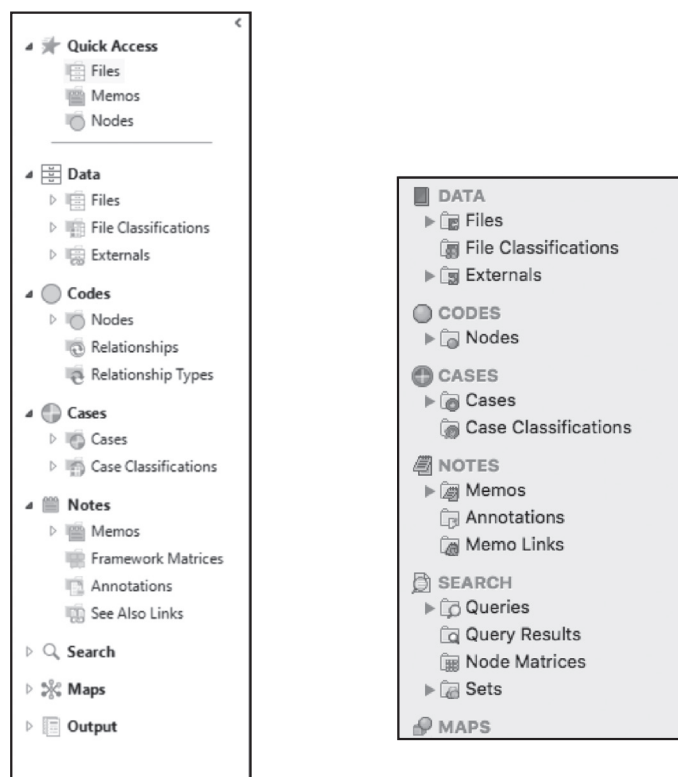
Figure 1.3 *Navigation View* in Windows (left) and Mac (right)

- **Data** are neatly organized in Files (e.g., transcripts, audio, video, surveys, social media).
- **Codes** are organized to help you examine conceptual or thematic Nodes that run across your Files (e.g., *Communication, Time, Trust, Vaccination).*
- **Cases** contain qualitative data as well as demographic and/or quantitative data for your units of analysis (e.g., *Barbara, Dorothy, Susan).*
- **Notes** help store your ideas and are sometimes linked to Files or Nodes (e.g., your Memo for *Initial Interpretations*).
- **Search** allows you to ask about connections among items in the project, usually through Queries or Sets.
- **Maps** provide an area to explore and express ideas visually.
- **Output** offers pre-established formats for getting data out of the software (Windows only).
  - Items can usually be easily exported from Windows and Mac with a right-click. You will do that later in this chapter.
  - Mac users who do not currently right-click should see the Tips, Challenges, and Warnings subsection at the end of the chapter for guidance.

In addition to this orientation to the screen, visit the online resources (https://study.sage pub.com/jackson3e). Here you can watch a two-minute video, 'Orientation to the NVivo

interface.' We provide a video for Windows users and a video for Mac users. At the same time, you can take stock of the supplementary materials on the companion website that you can access any time.

Now we will help you look more deeply into the project and familiarize yourself with the *Navigation View, List View* and *Detail View* (use Figures 1.1 or 1.2 if needed).

━━━━━━━━━ **1.c.** ━━━━━━━━━

Exploring the Sample Project

⇒   *Navigation View*: **Data** › **Files** › **Interviews**.

Throughout these instructions, keep in mind that items in the *Navigation View* sometimes require an extra step in order to see the subfolders (Figure 1.4).

Windows and Mac users: On the left side of a Folder, click on the right-facing triangle to see subfolders. When displaying subfolders, the triangle points down. Click on this downward triangle to hide the subfolders.

Mac users: In addition to the triangle on the left side of the folder, you will see a 'Hide' and 'Show' option if you move your pointer to the right of the main options (e.g., 'Data', 'Codes', 'Cases:').

Figure 1.4   Showing and hiding subfolders in the *Navigation View*

⇒   *List View*: **Double-click** on **Barbara** (Figure 1.5).

(Continued)

(Continued)
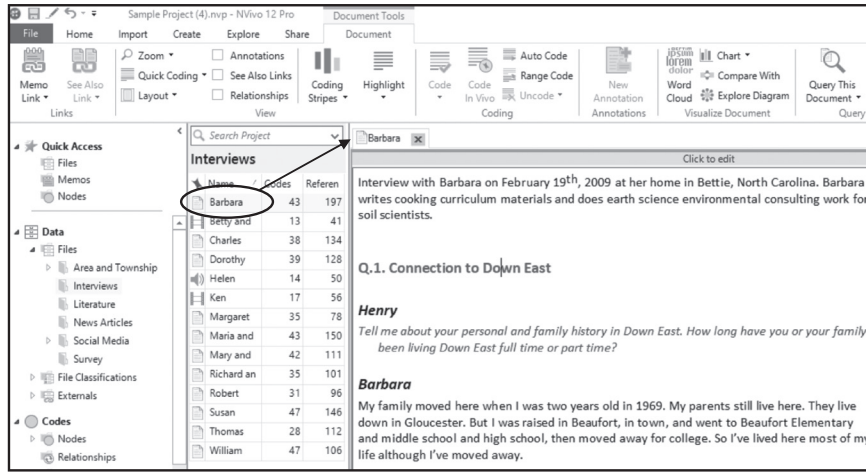
Figure 1.5   Opening *Barbara* in the *Detail View*

⇒ *Detail View*: This File inside NVivo looks similar to the file in Microsoft Word, but NVivo has made a copy of the original file.

⇒ *Navigation View*: **Codes** › **Nodes**.

    ○ Nodes are your concept containers and we will discuss them in detail in Chapter 3.

⇒ *List View*: **Double-click** on the Node, **Community change** (Figure 1.6).
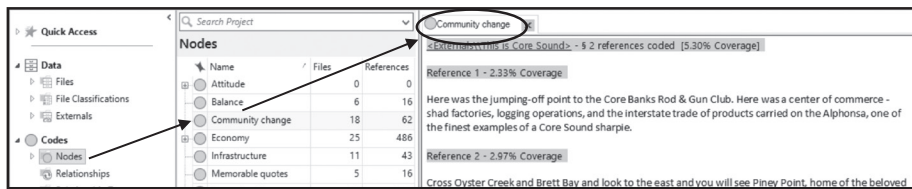
Figure 1.6   Opening *Community change* in the *Detail View*

⇒ *Detail View*: This Node points to passages in various Files that have been coded to the Node (and calls each coded passage a Reference).

⇒ *File*: **Open Project Event Log** (this tracks every action taken in the Project and can help you problem-solve; we will show you how to turn this on when you create your own Project).

Windows users

As you open items in the Project, they will continue to stack in tabs in the *Detail View* (Figure 1.7). You can leave many items open and access them via their tabs. You can also close any item by clicking on the X in any tab.
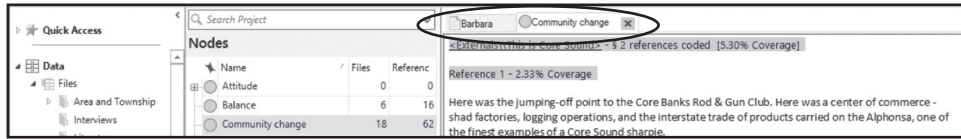
Figure 1.7   Open items in the *Detail View* with individual tabs (Windows)

Mac users

As you open items in the Project, they will continue to stack at the bottom of the *Navigation View* in the Open Items list (Figure 1.8). You can leave many items open and access them with a single click. You can also close any item by clicking on the X to the right of the item name. Mac users should also be aware that the *Menu bar* at the top of the screen provides additional options (e.g., File … Window, Help). We will occasionally send you to the *Menu bar* to access software features.
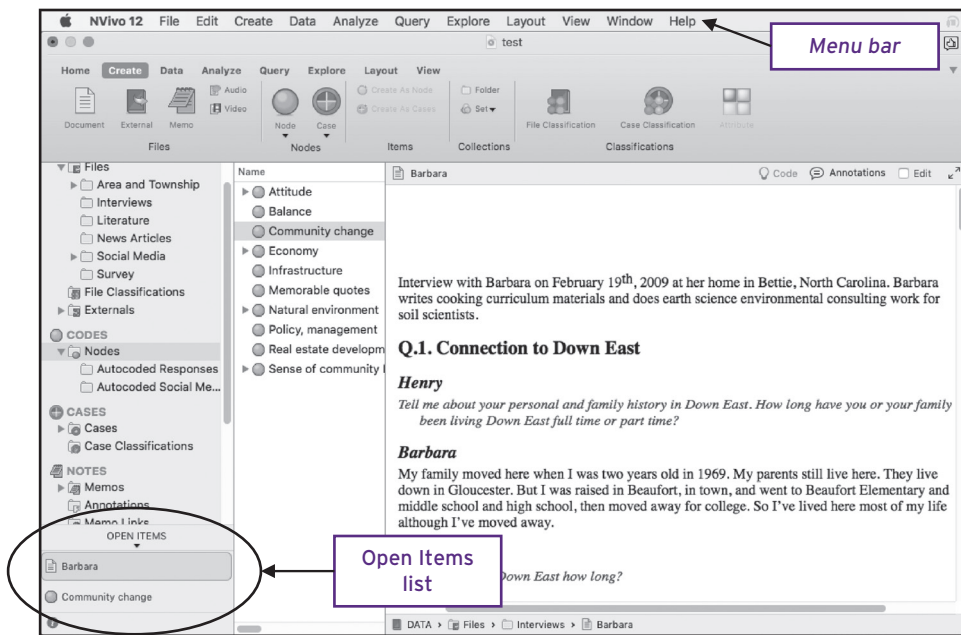
Figure 1.8   The 'Open Items' list in the *Navigation View* and the *Menu bar* above the *Ribbon* (Mac)

Continue exploring the *Environmental Change* Project

Continue clicking around in items in the *Navigation View* to get a sense of the tools and their locations – although the rest of the book will click you through these tools with specifically

focused chapters. In addition, you can watch our video on 'The main tools in NVivo' in the online resources (https://study.sagepub.com/jackson3e) for an extended tour of these tools and a guide to the chapters where you will find additional information about these tools. After opening a few items (some of which will make sense and others which might look strange), you will have a general sense of a fully populated Project. You will continue in the remainder of this chapter by creating your own Project from scratch (even if you have not yet finalized your research questions or collected the data to answer your research questions). When you are ready, exit the Sample Project.

━━━━━━━━━━━━━ **1.d.** ━━━━━━━━━━━━━

Exit the Sample Project

⇒ *File:* **Close.**
⇒ *Menu bar*: File › **Close**.

This will close the project without closing the software. If you want to quit working in NVivo until another time you can close the Project and the software simultaneously:

⇒ **Select** the X on the upper right.
⇒ *Menu bar*: **NVivo12** › **Quit NVivo.**

Create your own Project

Your Project begins from the time you start asking questions – from the thought that X, Y, or Z might be something interesting to investigate. This is also a good time to start using software!

- Early use of software ensures you do not lose precious early thoughts. Indeed, sketching ideas and writing even rough notes will help to clarify thinking as you plan your project.
- Starting early will give you a gentle introduction to the software and a chance to gradually develop your skills as your Project builds up. This is better than desperately trying to cope with learning technical skills in a rush as you become overwhelmed with data and the deadline for completion is looming.
- Starting with software early acts as a reminder that data collection and data analysis are not separate processes in qualitative approaches to research.

So, let's start now! We will help you create a new Project and record your preliminary ideas in a Project journal, Mind Map, and Concept Map. You will then import a pdf or Microsoft Word document, and create Annotations, a Memo, and a See Also Link to start writing about ideas prompted by the document.

━━━━━ **1.e.** ━━━━━

Creating a Project

It is *very important* that you only work with NVivo Projects on your hard drive unless you have purchased **NVivo for Teams**. There are instances of projects getting corrupted if you work off an external drive, server, or jump drive (unless you are using NVivo for Teams, Chapter 11, pp. 318–319). Don't panic: you can save backups to an external drive or a server and we show you how to do this at the end of this chapter. However, as you work through the instructions below to create a Project, we recommend that you save it in your Documents folder.

⟹ **Launch NVivo** › **Blank Project** / **Create new project** (Figure 1.9).
⟹ Provide a name in the **Title** /**Save As window**.
⟹ Add a **Description** for the Project (these can be changed later).
⟹ NVivo assigns a matching **File name** (or **Path**) for the Project file.
⟹ Check the box to **Write user actions to project event log** (you can turn this on and off later).
⟹ Identify the location of your Project (default is usually the **Documents** folder unless you recently used another location to save an NVivo Project).
⟹ **OK** / **Create.**
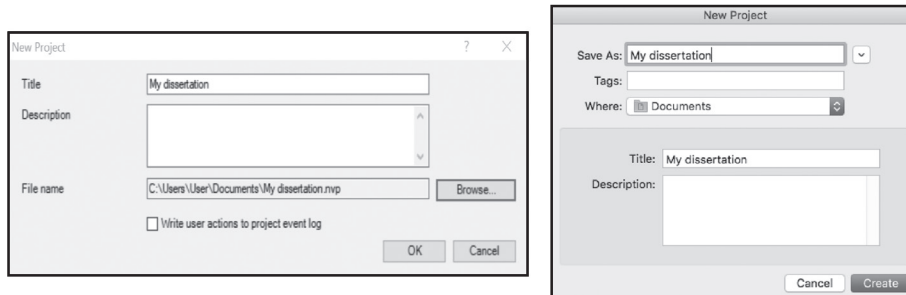
Figure 1.9 Creating a Project in Windows (left) and Mac (right)

⟹ Profiles and passwords: If you want to customize User profiles or establish Password protection, see Chapter 11 on Teamwork (pp. 324–326).
⟹ Save your project regularly, but if you have not taken an action in the Project since your last save, the option to 'Save' will be greyed out.

○ *File:* **Save.**
○ *Menu bar*: **File > Save.**

Windows users will discover that every 15 minutes NVivo will ask if you want to save your changes in case of power failure or crash. When you are working on your own Project, it is strongly recommended that you save each time you are asked, unless you are simply experimenting, do not want to save your changes, or you are in the middle of an Undo operation.

One or many Projects?

Your research may have a number of components:

- data generated from different sources (rural and urban; companies A, B, and C);
- data from different phases of the project (pilot phase and main data collection; wave 1, 2, and 3 of interviews);
- data of different types (literature, observations, interview transcripts, a dataset, pictures or video, web pages).

NVivo provides data management tools that allow you to compare or isolate different components within your Project. What this means in practice is that it is best to incorporate all those components into a single NVivo Project, rather than make separate Projects for each component. Having everything together in one NVivo Project will allow you to gather together all you know on any topic, regardless of the source, and to make instant comparisons across different Files, phases, types of data, or Cases. If you wish, you will still be able to interrogate just one component of the data by placing relevant Files within a specific subfolder, or by identifying that component as belonging to a defined Set or having a specific Attribute Value. (Chapters 2 and 5 will show you how to create and use Folders, Sets, and Attribute Values to manage your data.)

Journaling

In an NVivo Memo, you can journal any insights gained as you shape your research questions and your approaches to analysing the data. These reflections can alert you to include certain kinds of people in your sample, to collect information in alternative ways, or to explore a broader (or narrower) context. Begin by recording the questions, assumptions, or other ideas you are bringing to the Project. The following prompts might help:

- Why are you doing this research?
- What do you think it's about?
- What are the questions you're asking, and where did they come from?
- What do you expect to find and why?
- What have you observed so far?

Qualitative researchers typically keep a journal to document how they have moved from initial forays in their research to arrival at their conclusions; hence some refer to the journal as an audit trail for the study. Lyn Richards (2015) compares the journaling process to keeping a ship's log with its careful account of a journey, and provides detailed suggestions about what might be recorded there:

- How insights were triggered and ideas were developed.
- Fleeting ideas that are captured before additional data and ideas march into your consciousness.

- Lists of things you want to do at another time.
- The core concepts amidst the sometimes overwhelming options you could (but perhaps shouldn't) pursue in the data to answer your research questions.
- How you pulled together the evidence to support your conclusions.

Unlike the ship's log, however, the journal can be a private document and you might also record your frustrations and your joys as you work through your research. Perhaps the best advice of all, as you focus on ideas and your responses to them (rather than dry description), is to enjoy the journaling task. Write freely without worrying about formality of style or 'correctness' of thoughts. Writing 'often provides sharp, sunlit moments of clarity or insight – little conceptual epiphanies' (Miles & Huberman, 1994: 74).

In NVivo a journal is a Memo, and it will always be available for modification as you are working in the Project. You will be able to establish links (Memo Links and See Also Links) from your written ideas to entire Files or to the specific passages which prompted those thoughts. Additionally, you will be able to code the journal as you write it, making it easy

1.f.

Creating a journal

⇒ *Ribbon*: **Create** › **Memo** (Figure 1.10).
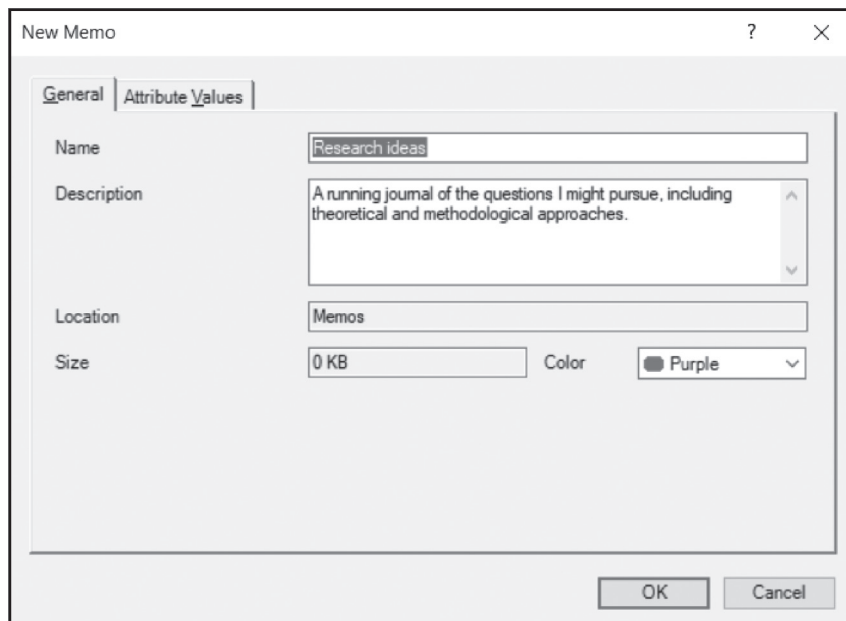
Figure 1.10   Creating a Memo to use as a journal

(Continued)

(Continued)

⇒ **Name** (provide a concise title)
⇒ **Description** (an optional, additional, brief overview of the Memo)
⇒ **Colour** (use as an optional strategy for grouping items, such as Memos about methodology)
    o **OK / Done**.

If you have a journal already started in a document outside of NVivo you can import it into the Project:

⇒ *Ribbon*: **Import** / **Data** > **Memos** > Select the File > **Open** > **Import**.

If you are importing only one Memo, you will encounter the Memo Properties window where you can rename, add a colour, etc. (this can also be done later through the Memo Properties window) > **OK / Done.**

Journal writing, saving, closing, reopening and editing

⇒ *Ribbon*: **Edit** / **Home** > **Insert** > **Insert Date/Time** to keep track of the evolution of your ideas (note the alternative shortcut keys: **Ctrl** / **Cmd** + **Shift** + **T**).
⇒ *Ribbon*: **Edit** / **Home** to adjust **Format** (colour), **Style**, etc.
⇒ *Detail View*: Write some ideas about your expectations for the Project or a list of things to do next as you move forward with your design and analysis.
⇒ *File* / *Menu bar*: **File** > **Save** (although you do not need to save it before you close the Memo, only before you close the Project).
⇒ *Detail View*: **Select** the **X** in your Memo tab (just above your date/time stamp) to close the Memo.
⇒ *Navigation View*: in the Open Items list, **Select** the **X** to the right of the Memo to close the Memo (see Figure 1.8).
⇒ To reopen the Memo:
    o *Navigation View*: **Notes** > **Memos**.
    o *List View*: **Double-click** on the **Memo** to re-open.
    o *Detail View*: **Click to edit** with the blue bar just below the name of your Memo / check box on the far right above your Memo > add more thoughts.

---

to retrieve the ideas you generate on any topic – and this is something you can do with any other Memo or document you create within your Project. No more coloured tags hanging off the sides of pages to help you find those insightful ideas. Perhaps the most important advice is that it does not matter if the typing or the grammar is rough, as long as you get the ideas down. Later, if you can discuss the ideas with a colleague, the conversation is likely to strengthen your reflective thinking about the text and its inter-pretation. Then you can clarify and augment your Memo. Consider coding your Memos as well as coding your other data, to help sort your thoughts thematically and to keep them at the forefront when you read coded data later. We will show you the basics of coding in Chapter 3.

Create a Map

We will show the various Maps, Graphs, and Charts available in NVivo as they become relevant in each chapter. Sketching your ideas about your Project at this stage is a particular form of journaling what you think it is you are asking or doing – great for those who prefer to think and work visually, and beneficial even for those who sometimes struggle to work visually. Maxwell (2013) argues strongly for creating an early concept map to help clarify the conceptual framework or theoretical underpinning of a study. In NVivo, two different types of Maps can be created to pursue this clarity:

- use a Concept Map when you want to visualize concepts or categories in your research questions or theoretical framework and explore the possible links between them;
- use a Mind Map when you want to explore a main idea and visualize a hierarchy or web of topics associated with that idea.

Maps can be used throughout your Project. In this chapter, we will use the Mind Map and the Concept Map as you begin shaping your research. This is a way of reflecting on the assumptions you bring to the Project as well as the concepts, relationships, or patterns you expect to find. This helps clarify your research questions and plan your data collection. If you have already collected data, the Maps can help you start tracking the ideas that are already emerging.

If you find it a struggle to develop a Map, then try some of Maxwell's (2013: 62) suggestions:

- Think about the key words you use in talking about your topic, or in things you've already written about your research.
- Take something you've already written (your research proposal, or a preliminary literature review perhaps) and map the implicit theory within it.
- Ask someone to interview you about your topic, then listen to the tape and note the terms used.

━━━━━━━━━ **1.g.** ━━━━━━━━━

Create a Mind Map (Figure 1.11)

⇒ *Ribbon*: **Explore** > **Mind Map** > Provide a **Name** for your Mind Map > OK / **Done.**
⇒ *Detail View*: Name your Main Idea for this Project.

Connect an Idea

⇒ Select the Idea you created (Main Idea) and add a Sibling or Child Idea to it.
    o Use the icons in the *Ribbon* **> Mind Map.**
    o Use the icons at the top of the *Detail View.*

Alternatively

⇒ With the main idea selected > **Right-click** > **Insert Child Ideas** > **Name** the idea.

(Continued)

(Continued)

⇒ Create a Sibling idea: **Right-click** on an idea › **Insert Sibling Idea** › **Name** the idea.

To move an item from one branch to another:

⇒ **Right-click** › **Cut** › **Right-click** on the destination item › **Paste**.

Create a floating idea

⇒ *Detail View*: In the white space **Right-click** › **Insert Floating Idea** › Label the idea. Floating ideas are used when there is not (yet) an obvious connection to the other ideas.

Create Nodes from a Mind Map

⇒ *Detail View*: **Click** anywhere on white space to ensure the *Detail View* is active.
⇒ *Ribbon*: **Mind Map › Create As Nodes or Cases ›** Select Location **› Nodes › OK.**
⇒ *Detail View*: At the top › Create as **Nodes ›** Nodes **› Select.**
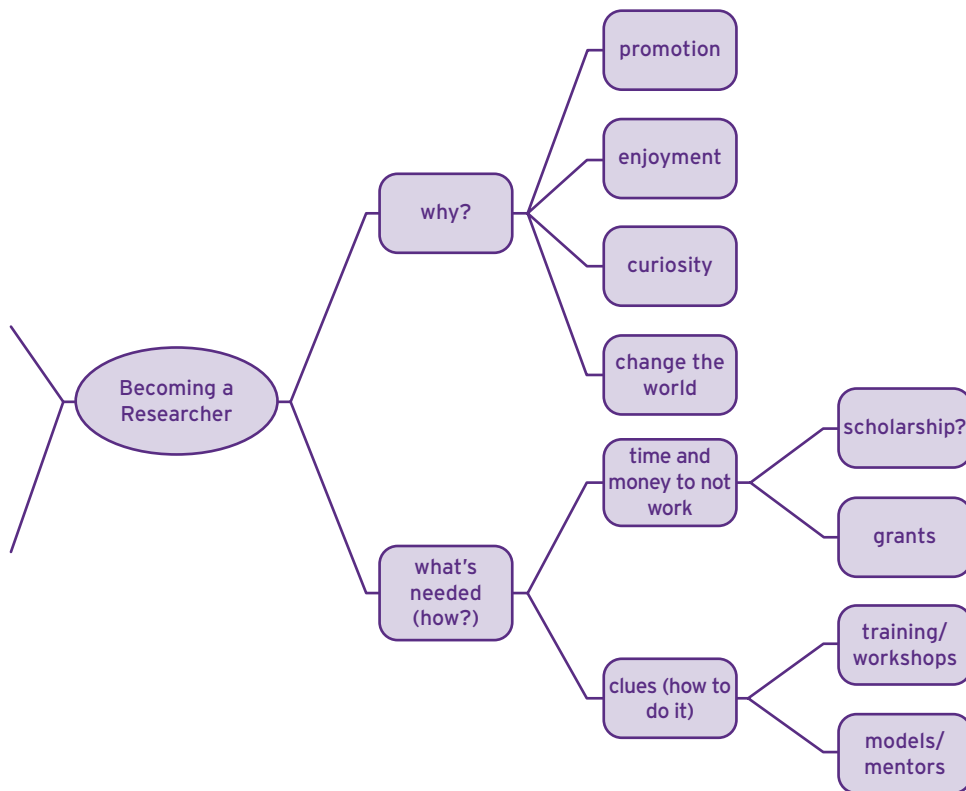
Figure 1.11 Mind Map to launch the *Researchers* Project

Create a Concept Map (Figure 1.12)

⇒ *Ribbon*: **Explore** › **Concept Map**.
⇒ Provide a **Name** for your Concept Map › **OK** / **Done**.

The *Detail View* will open with a collection of Shapes and an empty workspace in which to use them.

⇒ *Detail View*: **Select** a **Shape** and drag it to the workspace area to represent one of your concepts or categories.

The *Detail View* will open with an empty workspace. At the top of the empty Map you will find options to add Shape, Connector, and Project Item.

⇒ Click on **Shape** (sometimes this a is very small icon with no label just above the empty space of the Map) to add one to the workspace area.
⇒ **Double-click** on the Shape to label it. You might want to use different Shapes to represent different categories or theoretical concepts.
⇒ Add another Shape to the workspace, and label it. Add as many as you need to capture all of your concepts.

Managing shapes and connections

To illustrate real or potential connections between concepts or categories, you can add connecting lines between items.

⇒ *Ribbon*: **Concept Map Tools** › switch from Pointer to **Connector** / **Select** a Connector from the menu above the *Detail View*.
⇒ *Detail View*: **Select** one item, then while **holding** the left mouse button, **drag** to another item, to make a connection.

To change the type of Connector:

⇒ **Select** the Connector you want to change.
⇒ *Ribbon*: **Change Connector** /*Detail View*: **Format** pane: **Connector** › **Select** from the drop-down options.

To rearrange items

⇒ *Ribbon*: Switch back to **Pointer** to rearrange items in your Concept Map.
⇒ **Select** any item and hold the left mouse button to drag the item.

Other options

Select any item or items in your Map, to change their colour and border.

⇒ *Ribbon*: **Concept Map Tools** › Format Shape / *Detail View*: **Format Tab** › **Select Fill**, **Border Colour**, and **Border Width** to modify the appearance of the item.

If your mapping has prompted fresh thoughts about your Project, record those in your Project journal. Maps can be copied and pasted into the Project journal, as well.

(Continued)

(Continued)
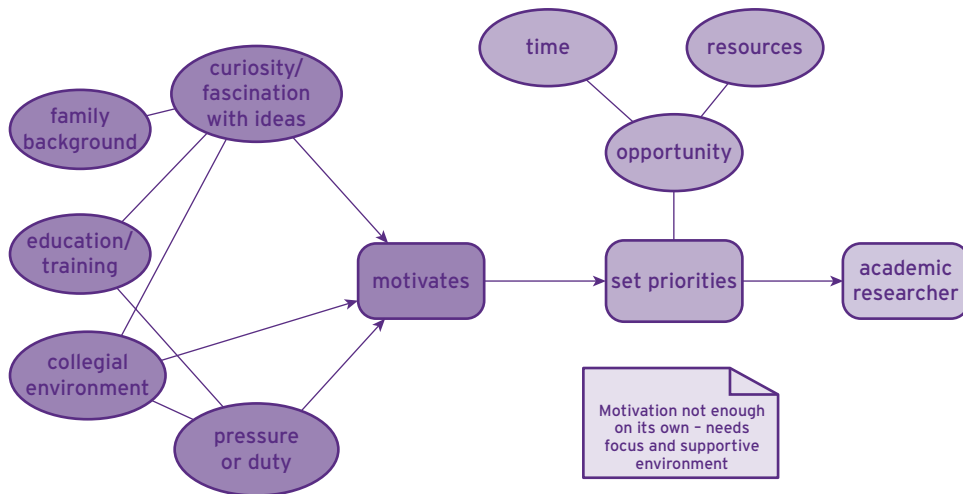
Figure 1.12 Becoming a researcher: preliminary Concept Map

Import and reflect on a data item

Now you are ready to import and explore a document. Consider using any of the following:

- an article or report;
- notes from your reading;
- the text of a preliminary interview;
- field notes from a site visit;
- the transcript of (or notes from) a conversation about your research with a colleague or your dissertation advisor or supervisor; or
- text from a web page.

We provide the types of Files that can be imported in the context of specific chapters, but a complete list of the various formats for qualitative data that can be incorporated into an NVivo Project can be found in the online resources (https://study.sagepub.com/jackson3e). With the exception of YouTube videos (Chapter 10) and non-embedded audio and video (Chapter 9), NVivo makes a copy of the Files when you import them. Changes you make to the File in NVivo will not be reflected in the original, and changes in the original will not update into the NVivo copy.

Text File types that can be imported include *****.doc and *****.docx (Word files), *****.txt (text files), *****.rtf (rich text files), and *****.pdf (portable data format files). If you use a pdf file at this stage, make sure it is one that allows you to copy specific text onto your clipboard. Identify a file or two that you are interested in importing, thinking through and writing about, and make sure they are closed but accessible through your computer.

Importing and viewing a text-based document

⇒ *Navigation View*: **Data** › **Files** (to establish the location where the Files will import).
⇒ *Ribbon*: **Import** › **Files** / **Data** › **Documents** › **Select** the File(s) › **Open** › **Import** › **OK** / **Done**.
⇒ *List View*: **Double-click** on the File to open in the *Detail View*.

Your first reading of a document should be rapid but purposeful, directed but not bound by your research questions. The idea is to get a sense of the whole, so as you begin to identify specific points or issues in the data, you will see them in the context of the whole (see Bazeley, 2013: chapter 4). Reading right through before you start coding is especially important if it is some time since you gathered this particular item of data, or if your recent work on it was piecemeal. Many people prefer to scribble on hard copy at this stage, on scrap paper, or in a notebook, but there is a real advantage in making notes on the computer – they do not get lost, and you have tools to help connect them with other Project items if you wish.

Mark text with Annotations

As you read (or later, as you code) in NVivo, you might Annotate words or phrases in the text. Annotations in NVivo are similar to a comments field or a footnote in Microsoft Word. Whereas Memos are more useful for storing (often extensive) reflective thoughts and ideas from the text, Annotations are useful for adding (usually brief) comments or reminders about a particular segment of text. You might use them to:

• clarify an acronym;
• note the intonation of the voice at a point in the conversation;
• identify a translation or transcription problem;
• comment on some aspect of the discourse.

An Annotation in the *Environmental Change* Project

In the *Environmental Change* study, Susan refers to herself as an 'Islandberger' in her response to the first question in the interview. The researcher notes, with an Annotation, that Susan has strong ties to both Harkers Island and Marshalberg, and that locals have developed hybridized names to express these ties. Fellow researchers will therefore know that they will not find 'Islandberg' in a list of nearby cities.

━━━━━━━━━ **1.i.** ━━━━━━━━━

Annotating text

⇒ *Detail View*: **Select** a word or a few words in the passage to be Annotated (usually short) › **Right-click** (on the highlighted text) › **New Annotation**.

⇒ A space for typing will open at the base of the *Detail View* (Figure 1.13).

⇒ A box will open in the *Detail View*.

⇒ Type your Annotation.

⇒ *Detail View*: Passages with an Annotation will be indicated with a blue highlight (click anywhere in the *Detail View* to release your selection to see this).
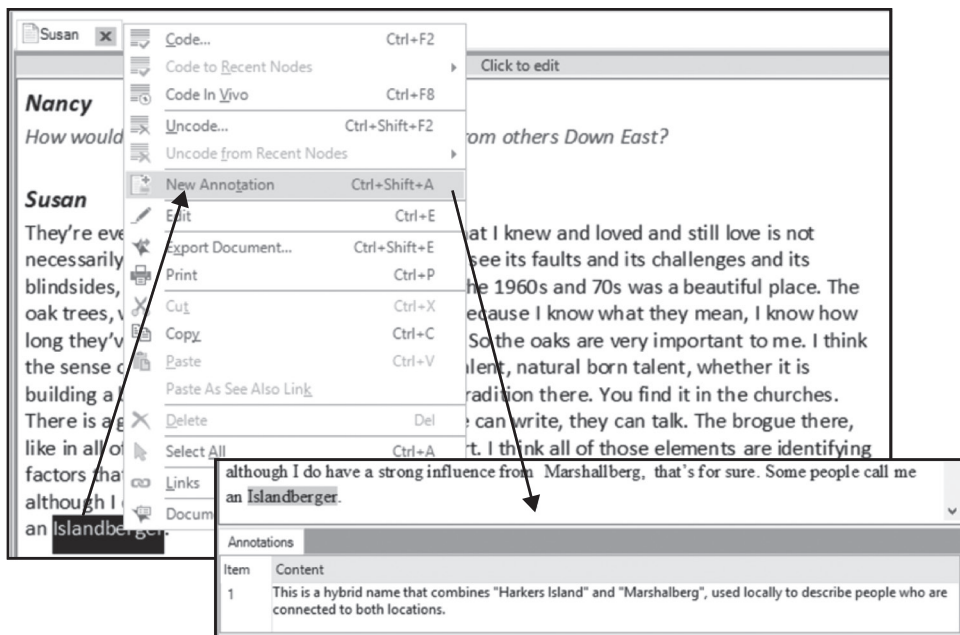
Figure 1.13   Creating an Annotation (Windows)

To turn Annotations off or on

⇒ *Ribbon*: **Document** › check or uncheck **Annotations.**

   o *Detail View*: **Click** anywhere in the blue highlighted text to see the matching comment at the bottom of the screen; or

   o **Select** the number next to a comment to see the associated blue highlight in the text (which will turn a darker blue).

⇒ *Detail View*: At the top, **select Annotations.**

   o *Detail View*: **Click** anywhere in the blue highlighted text to see the matching comment; or

   o **Select** a comment to see the associated blue highlight in the text (which will turn a darker blue).

Reflect on a specific File using a Memo Link

You can use a Memo to reflect on the data you imported, but, depending on the nature of your data, you might also create a Memo that is linked to a particular File. This allows a quick pathway between the File and the Memo (although, as an alternative, you could also develop a naming scheme that simply allows you to find the Memo that is associated with a particular File efficiently in the *Navigation View*). There are two key restrictions to note when using a Memo Link:

- A Memo Link does not allow you to jump from a specific place in a Memo to a specific place in a File.
- Each File in NVivo can be assigned only one Memo. A File and a Memo are monogamous when it comes to a Memo Link.

These restrictions do not apply to a See Also Link (covered later).

Because a Memo Link will focus on a particular File, rather than on overarching concepts or a list of things to do at another time, they have a different use, including:

- field notes generated during data collection about the participant whose File is linked, such as unrecorded comments, observations, and debrief discussions with a co-interviewer;
- a summary of the main points in the File, or notes about your overall impressions from the File;
- thoughts about the meaning or significance of statements in this File such as inconsistencies or unique metaphors.

Whether you decide to create a Memo for particular Files in your Project or simply use a general journal will be a matter of methodological choice and/or pragmatic decision-making and will vary from Project to Project. A link between a File and a Memo is not necessarily useful for all Projects. For example, for data where responses are brief, it may be more useful to record a summary of key issues for each File (or Case) in a single combined 'issues' journal, and to use a separate journal for reflecting on what you are learning from various Cases and for noting common themes to explore. For any Project dealing intensively with rich data for a small sample, however, the Memo for each File becomes a valuable resource holding a reminder of key points learned, interpretive thoughts, and ideas to follow up in later analyses.

1.j.

Creating a Memo Link to a File

⇒ *Navigation View*: **Data** › **Files** › **Select** a File › **Right-click** › **Memo Link** › **Link to New Memo**.
⇒ **Name** the Memo › **OK / Done**.

(Continued)

(Continued)

⇒ Date and time stamp your entry › **Ctrl** / **Cmd** + **Shift** + **T**.
⇒ Record your ideas about that **File** in the **Memo** and come back to it any time to review and revisit your interpretations.

     o *List View*: **Select** the **File › Right-click › Memo Link › Open Linked Memo** (or **Ctrl / Cmd** + **Shift** + **M**).
     o At the top of the *Detail View*: **Click to Edit / Tick Edit** if you want to edit/ augment your existing thoughts.

Link ideas with evidence, using a See Also Link (Windows only)

Although the Memo Link provides quick access to your Memo, it does not link specific ideas to specific passages. This extra specificity is available in one of our favourite tools, the See Also Link. You can use this to jump to a specific place in a File from a location in another File or Node (not available in the Mac). An additional bonus is that the File containing the links can be exported to an MS Word document and the associated See Also Links also export as endnotes in the document. This provides a far better solution than copying and pasting text directly from a File into a Memo. Pasting text rather than linking is problematic, because

- the segment has become disconnected from its identifying File and context;
- any coding on that text will be pasted as well, generating double retrievals when you review the coding. (You can fairly easily Uncode all the coding from a Memo if this occurs.)

1.k.

Create, view, and export a See Also Link (Windows only)

Create a See Also Link

⇒ Read an interesting passage in a File that gives you an idea and **Copy** it (remember it is now on your Clipboard as you do a few additional things).
⇒ *Navigation View*: **Notes** › **Memos**.
⇒ *List View*: **Double-click** on an existing **Memo**, such as your Project journal, to open it › **Select Click to edit** at the top of the *Detail View*.
⇒ *Detail View*: Write your interpretation or idea in the Memo (Figure 1.14) › **highlight** what you wrote (or a key phrase in your writing) › **Right-click** on this material › **Paste As See Also Link**.

Viewing the See Also Link

⇒ After following the above instructions, click inside your Memo to release the black highlight. The text associated with the See Also Link will now be highlighted in pink. If you do not see the See Also Link at the bottom of your screen:

     o *Ribbon*: **Document** › check the box next to **See Also Links**.
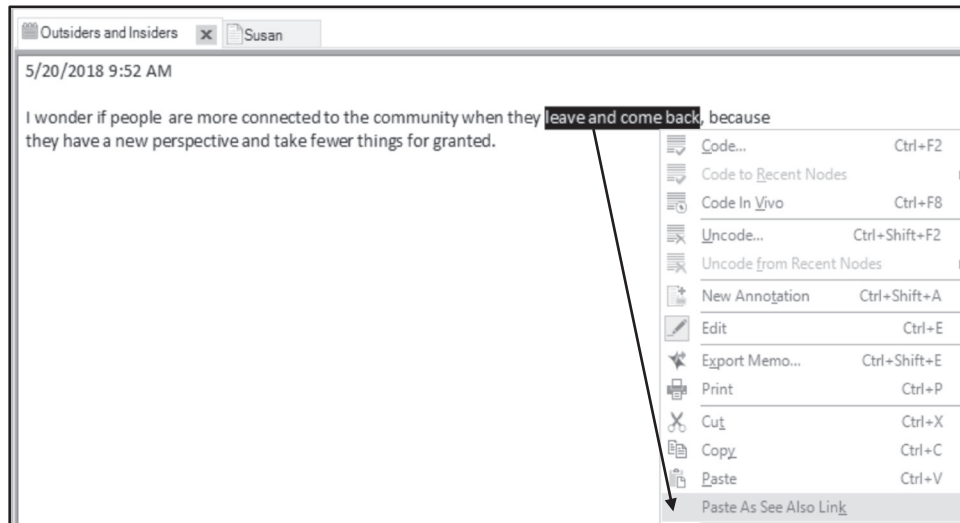
Figure 1.14   Pasting a See Also Link (Windows only) to a specific location (in a File) from a specific location (in a Memo)

⇒   When you do see the See Also Link at the bottom of the screen:

    o   *Detail View*: **Double-click** on the **See Also Link** at the bottom of your screen to jump to the original location.

Exporting the Memo with its associated See Also Links

⇒   *Detail View* (or *List View*): **Right-click** in the **Memo** › (**Export** ›) **Export Memo** › select a location and rename it if you wish.

    o   under **Related Content > Tick** See Also Links.
    o   Tick **Open on Export > OK**.

A See Also Link identifies the File, provides context, and can be viewed or printed along with the ideas you added in your Memo. This helps you pull together the argument you are developing for your article, report, or thesis, along with quotes from the Files. Examples of how you might apply the See Also Link include:

- Link interpretation of text to the passage that gave rise to the interpretation. In the *Environmental Change* Project, this is evident when interpretations of what it means to be local (in the Local identity and knowledge Memo) are linked to what was said in interviews.
- Identify questions or issues that you want to return to later. In the *Environmental Change* Project this is evident in the *EDR Research Journal* (a Memo written by Effie). If you open this Memo, you will find a See Also Link connected to a portion of the interview with *Thomas*, where community newcomers are referred to as 'dingbatters'.

Effie wants to return to this later to examine whether the designation should become a node or not.

- Use the capacity to create a See Also Link from one passage to another in the same document to point up contradictions in a narrative, or where one passage provides an explanation for or expansion of the other.
- Create a See Also Link where the transcript illustrates something you read in the literature. Link from that transcript to the relevant material in a reference document, such as a passage in a pdf article you imported.
- Communicate with and respond to other team members. In the *Environmental Change* Project you will find an entry in the *WWS Research Journal* on 6/4/2010 where Wanda is responding to an observation Henry made in his *HGP Research Journal*.
- Eliminate the need to repeatedly articulate processes or protocols by adding See Also Links to point to where they have been described and/or used. In the *Environmental Change* Project, the *Project protocol memo* contains such a link dated 5/15/2010 to the location where Wanda explains the process she used for assigning pseudonyms.
- Link across documents to build a sequentially ordered picture of an event or a life history through the eyes of one or more tellers, or to trace an evolving idea or saga. When a See Also Link is accessed, the linked item is opened with the selected passage highlighted. That passage might contain another link, allowing a further link in the web of ideas you created.

Connecting across your Project – more on See Also Links

There are two types of See Also Links, and each does something slightly different. The first and most commonly used way of creating a See Also Link is to select a passage of text or part of a media file, copy it, then paste it elsewhere as a See Also Link – as described above. Use this method when you are linking a specific portion of one File to a specific portion of another File. The second way of creating a See Also Link (which is also only available in Windows) is to link a whole Project item to an anchor at a specific location within a File or a Memo. We do not see this used as often, but it could be useful to you.

Create links in your Memos to whole Files, Nodes, or Project Maps to illustrate or provide evidence for what you are reflecting on in the Memo. For example, when you have explored an association within your data using a Query, write about what you discovered in a Memo with a link to the Node that contains the stored Query Results.

—————— **1.l.** ——————

Creating a See Also Link to a whole Project item (Windows only)

⇒ *Detail View*: **Select** text to act as an anchor for the See Also Link > **Right-click** > **Links** > **See Also Link** > **New See Also Link**.

   o **From >** shows the File name for the content you just selected.
   o **To >** provides options of existing items **> Select > OK > OK**.

⇒ The anchoring text will be highlighted in pink to indicate the presence of a linked item, and a tab in the *Detail View*, below the text of your File, will indicate the name and location of the linked item.

⇒ View See Also Links as described earlier. If you export a copy of the File, it will provide the name and location of the linked item for this type of See Also Link, but not the content (because it is linked to an entire item).

Connecting beyond your Project – Hyperlinks

Perhaps your interviewee referred to a report that is online, or to an ongoing blog; the group discussion was based around a book or video; or there is a cross-reference from an article you have imported to one that is on file but which you are not importing into your Project. For such situations, Hyperlinks allow you to make direct connections from a specific location within a File to items that are not in the Project (online data or any digitally stored material on your computer), such as books or reports, pictures, web pages, video or audio files. You can also use Hyperlinks to link from your journal to records of meetings with advisors, emails from colleagues, and other sources of influence on your developing thinking as well, as part of an audit trail for the Project.

━━━━━ **1.m.** ━━━━━

Create and view a Hyperlink

⇒ *Detail View*: **Click to edit** / **Tick Edit** > **Select** the text that will be an anchor for the link > **Right-click** > **Links** > **Hyperlink** > **New Hyperlink** and select one of the following options:

   o   Enter a URL in the window; or

   o   **Browse** your filing system for the object to be linked.

⇒ **OK**.

⇒ To open the Hyperlink, use one of the following options on the **underlined blue text** that marks the anchor for the link:

   o   **Ctrl / Cmd** + **click**; or

   o   **Right-click > Links > Hyperlink > Open Hyperlink**.

Saving and backing up your Project

Save your Project periodically as you work. Of course, you should always save as you exit the Project as well. For safety, you should create backup copies as you work. Our recommendation is to make a backup on your working computer at the end of each day's work, and to copy that to another medium (a disk, memory stick, server, or cloud that is independent of that computer) on a regular basis. You might also want to retain copies from important transition points, for example, before and after a major restructure, before and after

combining the work of team members, or when you've developed key Maps or understandings of the Project. These copies will help you write up the methods section of your final product. They can also help you communicate about how your ideas developed and thus help convince a reader about the legitimacy of your findings.

1.n.

Backing up after you close your Project

⇒ Go into Windows Explorer or your File Manager / Go to Finder > **Copy** the Project > **Paste** into a backup folder and rename or add a date to the backup.

⇒ Windows users might want to match the Title with File (or Path) name (Chapter 11, pp. 327–328).

Backing up your Project while you are working in NVivo (Windows only)

⇒ **File: Save.**

⇒ **File: Copy Project.**

⇒ The **Copy** window identifies the Project you are in and that is about to be copied.

⇒ The **Copy to** window allows you to select a version for your copy.

⇒ The **Location** window allows you to rename the copy

- o We use an international date format (year-month-day) added to the name, so they sort in date order (from oldest to newest).
- o Identify a location place for the copy, and we recommend an external drive. Remember, however, you should never open and work on a Project on an external drive unless you are using NVivo for Teams.
- o Windows users might want to match the Title with File (or Path) name (Chapter 11, pp. 327–328).

Be aware that in the process of copying your Project, NVivo will copy your Project but then return you to the original. In contrast to *Save As* (in Microsoft Word and many other programs), you do not end up in the copy at the end of the procedure.

SECTION 1.4: CHAPTER 1 TAKEAWAYS

Key points from this chapter

- o It is important to think about ways NVivo can follow your methodological choices rather than lead them.
- o We believe that society and culture influence the construction of technologies and that these technologies also influence society and culture. To accept this view means accepting that our qualitative work is sometimes influenced by NVivo.

- Start using the tools in NVivo that are designed to help you think before you start coding:

  - Maps

- Memos
- Links

- Establish a consistent process for saving your Project and creating clearly named backups.

Tips, challenges, and warnings

- Do not work on an external drive unless you have NVivo Server.
- Save and create backups regularly.
- If you rush through the process of writing and thinking you will end up with a messy journal that is likely to be hard for you to understand.
- Start using NVivo early in your research so you can learn the tools gradually and without as much pressure.
- If you are a visual thinker, use Maps to sort through your ideas.
- Whenever you are not sure what to do or where to look for an action when you are working in NVivo, a context-sensitive menu can be accessed by right-clicking in the *Navigation View, List View,* and *Detail View*.
- Mac users are encouraged to use one of the following options to enable a right-click:
  - Purchase an external mouse with a right-click option.
  - In your System Preferences, configure your 'Secondary click' to engage as a right-click with one of three options: Click or tap with two fingers, Click on bottom right corner, or Click on bottom left corner.
  - Press **Control** (**Ctrl) + click** to access right-click options. This works for a 1-button mouse, MacBook trackpad, or with the built-in button on the standalone Apple Trackpad.

- See Chapter 11, pp. 324–326 if you want to set up User profile and Password protection.

Videos and online resources (https://study.sagepub.com/jackson3e)

Videos

- 'Primer for following the click instructions' (Mac, Windows)
- 'Orientation to the NVivo interface' (Mac, Windows)
- 'The main tools in NVivo' (Mac, Windows)

Help files

- *File*: Help.
- *Menu bar*: **Help > NVivo Help.**

Search for any of the following:

- Concept maps
- Create a new project
- Explore the sample project
- Links
- Memos
- Mind maps
- Save and copy projects
- Using NVivo

Practice questions

1   How do you think the software might lead you? Articulate the circumstances in which this might be a good/bad thing.
2   Think about the theoretical framework(s) that underpin your research. Try creating a Concept Map to visualize them.
3   What kinds of Memos (or topics within Memos) are likely to help you with your research?
4   What topics, themes, and patterns do you anticipate finding in your work? Create a Mind Map to diagram them, then turn the ideas into Nodes. Or, create a Memo and write about them, linking to available material (e.g., literature) when available.