

SA108 Introduction to NVivo for Qualitative Data Analysis

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Marie-Hélène Paré is eLearning consultant and lectures program evaluation in the Master in Health Social Work at the Open University of Catalonia and a freelance methodologist in qualitative data analysis. She was educated in Quebec, Beirut and Oxford. A clinician by training, she worked for several years in psychosocial care with survivors of war rape and war trauma in humanitarian emergencies for MSF, MDM and UNRWA in war-torn countries. She moved to academia to research community participation in MHPSS which she researches using mixed methods. Marie-Hélène has lectured qualitative data analysis in more than forty universities and research centres worldwide. She teaches qualitative data analysis at the ECPR Method School since 2009 and also teaches at the IPSA-NUS Summer School at the National University of Singapore.

Prerequisite knowledge

No prerequisite knowledge of NVivo required. Knowledge of qualitative research necessary.

This course uses NVivo 12 Pro for Windows

This is a bring-your-laptop course for **NVivo 12 Pro for Windows**. You can download the 14-day free trial [here](#). This course is unsuitable for NVivo for Mac as this version is incomplete compared to Windows. You can run NVivo 12 Pro for Windows on a Mac using Apple Boot Camp or Parallels if, and only, your Mac meets the system requirements [here](#). You must ensure that NVivo works well on your machine regardless of the OS used as no technical assistance will be provided at the Summer School by the instructor, teaching assistants, ECPR staff, or CEU IT services. Please see the software installation instructions in the section Software and hardware requirements below.

Short course outline

This course is designed for participants who plan to use NVivo for the management, coding, analysis and reporting of qualitative data. The course content is spread over four modules and includes setting up a project; organising and classifying data; managing a literature review; coding and analysing textual, multimedia and internet data; and reporting qualitative findings using visualisations. The course is entirely hands-on and uses sample data to learn NVivo's basic and advanced functionalities. The course does not cover how to analyse qualitative data using specific analytic methods such as thematic analysis, grounded theory, or content analysis. If you are looking for such course, see the course *Advanced Qualitative Data Analysis* at the ECPR Winter School in Bamberg.

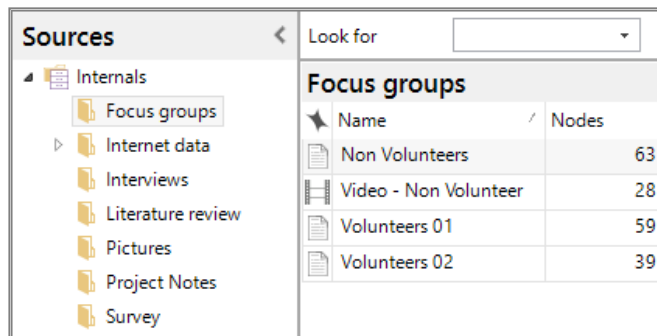
Long course outline

NVivo is software programme for qualitative data analysis. It is a powerful platform that supports text, multimedia, pictures, and PDFs; open-ended surveys from Excel and Survey Monkey; bibliographic meta-data from reference manager software; social media data from Facebook, Twitter, LinkedIn, YouTube as well as webpages; notes taken with Evernote and OneNote; and emails of Outlook. NVivo supports a range of inductive and deductive methods to qualitative analysis such as thematic and content analysis, within and cross-case analysis, discourse, conversational and narrative analysis, grounded theory, analytical induction, and qualitative evidence synthesis. The objective of this course is to provide participants with knowledge and skills to use the basic and advanced features of NVivo in their own research. The course content is spread over four modules and includes setting up a project; organising and classifying data; managing a literature review; coding and analysing text, multimedia and internet data; seeking patterns and discovering

relationships; and reporting qualitative findings using visualisations. Details of the four modules are presented below.

Module 1 Data Management

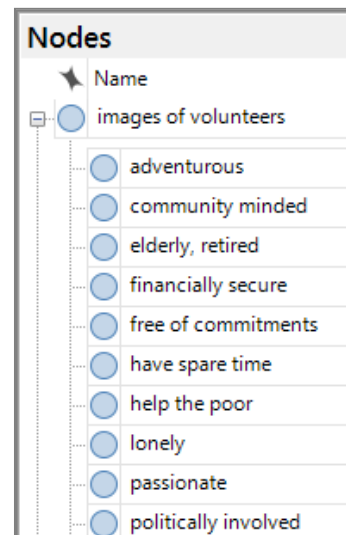
The course opens with an introduction of the NVivo interface, its structure and underlying logic. We create an NVivo project, import, organise, and classify data. We learn to manage a literature review using annotations, cross-references, and memo links for easy access and retrieval. Our attention then turns to handling multimedia data starting with the generation of verbatim transcripts, video summaries and picture logs.



We then use externals to link an NVivo project to outside information, as well as memos where the analytic process is recorded. Module 1 concludes with lexical queries, which search for frequency and context of keywords in textual data. We analyse the outputs using word clouds, dendrograms, and word trees.

Module 2: Data Coding

Module 2 introduces the different techniques to automatically and manually code qualitative data in NVivo. We start by autocoding data from structured interviews, which allows sorting large sections of data in thematic sections. Such data sorting - known as 'broad-brush' coding - is very useful when one wants to examine everything that was said about a specific question or theme across a dataset, without having to open every single piece of interview where the question was asked. Formatting tips in Word accompany this topic.



We move on to manual coding and learn the different techniques to code data inductively; that is, using a bottom-up approach. Key notions underlying the coding process such as coding unit, semantic exclusiveness, and semantic exhaustiveness, are exemplified with the material at hand. The use of relationship nodes is tried out when one wants to formalise associations between the codes for hypothesis generation and/or falsification. Module 2 concludes with visualisations that map the coding process and compare coding across sources and cases.

Module 3: Data Analysis

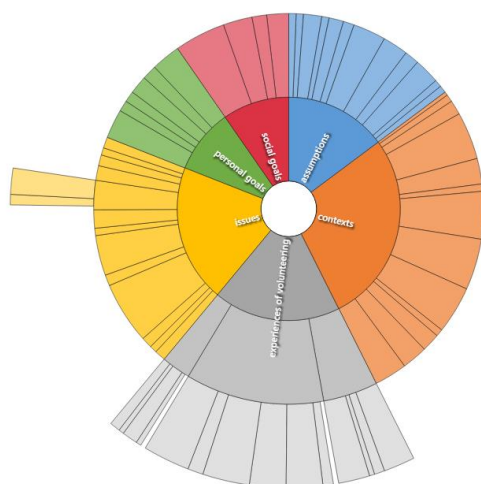
Module 3 covers the range of functionalities to prepare and conduct qualitative analysis. Since social research frequently gather qualitative data as well variable data, so comparisons can be made across cases, settings and contexts, we look at the procedures to create case classifications and assign variables to cases. We then turn to the Search Folder to efficiently retrieves cases that match a specific sociodemographic profile. This allows us to create sets to be used for the cross-case comparison.

	Age	Country	Current job
Anil	40-49	India	Director
Anna	20-29	Aust	Student
Annette	40-49	US	None
Annie	20-29	US	None
Bela	40-49	India	Director
Bernadette	60+	Aust	Retired
Cecilia	20-29	Aust	Supervisor
Dan	60+	US	Retired
David	20-29	US	Student
Devon	20-29	UK	Student

We then move on to coding-based queries which retrieve data based on boolean operators that search for data overlap, inclusion, proximity, or exclusion. We start with coding queries that search for data coded at some nodes but only when mentioned by cases that match specific attributes. For cross-case analysis, we run a matrix coding queries which cross-tabulate cases with codes, and we interpret the results using different outputs: coding density, case number, and relative percentage. Our interpretation is recorded in memos and is linked back to theory. Module 3 concludes with running group query to explore association between coded items across a dataset.

	Cases:Age = 20-29	Cases:Age = 30-39	Cases:Age = 40-49
getting and giving	2	2	2
thanks or recognition	1	3	1
acknowledgement	1	0	0
sense of achievement	3	1	0
skills development	6	0	0
emotions	2	1	3
taken for granted	1	2	3
organisational politics	0	0	0
emotionally difficult	2	0	1
physical endangerment	1	2	0

Module 4: Data Visualisation



Module 4 proposes different graphic displays to effectively communicate one's research findings. We first discuss the rationale for choosing certain displays against others. We learn to generate maps, charts, diagrams, and dendograms. Moving on to building a solid audit trail to back up results and substantiate one's claims, we learn how to export qualitative findings out of NVivo. The usefulness of generating node summary reports, which provide a detailed synthesis of the scope of a node in a project, is also covered. When working with colleagues who don't use NVivo, the possibility to export project data in mini websites using HTML files is presented.

Module 4 concludes with the ABC of coordinating team work with an emphasis on the golden rules for successful data management, splitting and merging project files in a master project, and the measurement of intercoder reliability between coders.

Day-to-day schedule

	Topic(s)	Details
Thursday	Data organisation and exploration	<ol style="list-style-type: none"> 1. Import, organise and classify data 2. Manage a literature review 3. Work with internet and multimedia data 4. Run textual queries 5. Link your project to external information 6. Record the research process in memos
Friday	Data coding and comparison	<ol style="list-style-type: none"> 1. Apply your research design in NVivo 2. Autocode structured data 3. Code data inductively 4. Manage a coding scheme

		<ol style="list-style-type: none"> 5. Generate hypotheses 6. Map the coding process
Saturday	Data analysis and visualisation	<ol style="list-style-type: none"> 1. Search, locate, and group items 2. Run coding and matrix queries 3. Present findings with visualisations 4. Generate summary reports 5. Export content out of NVivo 6. Coordinate teamwork

Day-to-day reading list

The NVivo Pro Started Guide (see [here](#) for download) is the main text of the course. Those who wish to deepen understanding of using NVivo in qualitative research can do the optional readings of Bazeley & Jackson (2013) *Qualitative Data Analysis with NVivo* (2nd ed.). Please note that this book was written for NVivo 10 and the interface and some functionalities are now outdated with version 12.

	Readings
Thursday	<p>Data organisation and exploration</p> <p>Compulsory text</p> <ul style="list-style-type: none"> • NVivo 11 Pro Started Guide: pp.5-7; 10-14; 17-23; 37-38 <p>Optional text</p> <ul style="list-style-type: none"> • Bazeley & Jackson: format data: 59-61; download data with NCapture: 173-177; import data: (internals) 24-34; 45-46; 61-66; (open-ended surveys) 199-203; (social media) 171-176; 209-211; (multimedia) 154-167; transcription: 167-169; externals: 62-63; literature review: 178-194; links and memos: 34-45; text-based queries: 110-117; 249-250
Friday	<p>Data coding and comparison</p> <p>Compulsory text</p> <ul style="list-style-type: none"> • NVivo 11 Pro Started Guide: pp.24-36 <p>Optional text</p> <ul style="list-style-type: none"> • Bazeley & Jackson: autocoding: 108-110; (datasets) 207-208; codes and coding: 68-94; coding scheme: 95-106; 117-119; relationship nodes: 230-234; cases and variables: 50-56; (from surveys) 122-139; 205-207
Saturday	<p>Data analysis and visualisation</p> <p>Compulsory text</p> <ul style="list-style-type: none"> • NVivo 11 Pro Started Guide: pp.40-42; 43-48 <p>Optional text</p> <ul style="list-style-type: none"> • Bazeley & Jackson: sets: 106-107; 146-153; coding-based queries: 141-146; 242-248; 250-257; cross-case analysis and theory-building: 257- 265; visualisations: (model) 28-30; 217-230; 234-241; reports: 265-269; export content out of NVivo: 119-121; 139-140; team work: 270-296

Software and hardware requirements

This course requires that you run **NVivo 12 Pro for Windows** on your laptop. You can download the 14-day free trial [here](#). DO NOT COME TO THE COURSE WITH NVIVO FOR MAC as this version is incomplete compared to NVivo 12 Pro for Windows. Mac users should consult the compatibility [options](#) and system [requirements](#) to run NVivo 12 Pro for Windows using Boot camp or Parallels on their Mac. You must ensure that NVivo works well on your machine regardless of the OS used as no technical assistance will be provided at the Summer School by the instructor, teaching assistants,

ECPR staff, or CEU IT services. Once NVivo is installed on your laptop, verify that it works properly. Follow the instructions below.

1. Launch NVivo.
2. In the Start screen, in the **New** section, click **Sample Project**.
3. NVivo opens a copy of the sample project which is stored in your default project location.
4. If you can't open the Sample project, contact QSR international by submitting a [support request form](#) online (see section Contact Us Online at the bottom).

NVivo [system requirements](#)

	Minimum	Recommended
Processor	1.2 GHz single-core processor (32-bit) 1.4 GHz single-core processor (64-bit)	2.0 GHz dual-core processor or faster
Memory	2 GB RAM or more	4 GB RAM or more
Display	1024 x 768 screen resolution	1680 x 1050 screen resolution or higher
Operating system	Microsoft Windows 7	Microsoft Windows 7 or later
Hard disk	Approximately 5 GB of available hard-disk space	Approximately 8 GB of available hard-disk space

Literature and studies that used NVivo

- Auld, G. W., Diker, A., Bock, M. A., Boushey, C., J, Bruhn, C. M., Cluskey, M., . . . Zaghloul, S. (2007). Development of a Decision Tree to Determine Appropriateness of NVivo in Analyzing Qualitative Data Sets. *Journal of Nutrition Education and Behavior*, 39(1), 37-47.
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- Hays, R., & Daker-White, G. (2015). The care.data consensus? A qualitative analysis of opinions expressed on Twitter. *BMC Public Health*, 15, 838. doi: 10.1186/s12889-015-2180-9.
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- Wainwright, M., & Russell, A. (2010). Using NVivo Audio-Coding: Practical, Sensorial and Epistemological Considerations. *Social Research Update*, 60(1), 1-4.
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- Zapata-Sepúlveda, P., López-Sánchez, F., & Sánchez-Gómez, M. C. (2012). Content analysis research method with Nvivo-6 software in a PhD thesis: an approach to the long-term psychological effects on Chilean ex-prisoners survivors of experiences of torture and imprisonment. *Quality & Quantity*, 46(1), 379–390