## 5th ECPR Winter School in Methods and Techniques, 26 February – 4 March 2016 University of Bamberg, Germany

Course Description Form [preparatory short course, 7.5 hours, 26-27 February]

### 1. Course title

**Introduction to NVivo for Qualitative Data Analysis** 

### 2. Instructor details

Name: Marie-Hélène Paré

Institution: Universitat Oberta de Catalunya

Carrer Dos de Maig, 200, SA 2ª Barcelona. 08013. Spain.

Phone: +34.693.707.150

E-mail: <a href="mailto:mhpare@pragma-solucions.cat">mhpare@pragma-solucions.cat</a>

Web: academia.edu

#### 3. Short Bio

Marie-Hélène Paré is an eLearning consultant who lectures program evaluation in the Master in Health Social Work at the Open University of Catalonia, and a freelance lecturer, consultant, and trainer in qualitative data analysis. She was educated in Quebec, Beirut and Oxford where she read social work. She taught social work at St-Joseph University in Beirut, Lebanon, and has lectured qualitative data analysis in more than forty universities and research centres worldwide. Her methodological interests lie in qualitative data analysis, qualitative evidence synthesis, emancipatory social sciences, indigenous epistemologies, and participatory methodologies.

### 4. Prerequisite knowledge

This is an introductory course on NVivo with no prerequisite knowledge. Knowledge of qualitative research is necessary.

### This course uses NVivo 10 for Windows

### 5. Short course outline (150 words)

This course is designed for participants who plan to use NVivo for the management, coding, analysis and visualisation of qualitative data. The course's content is spread over four modules and includes setting up an NVivo project and organising data; coding data, working with case and attributes; seeking patterns and identifying relationships across data, and presenting findings using graphic displays. The course is entirely hands-on and uses sample data to learn NVivo's basics and advanced features. The course does not cover the methods to analyse qualitative data (i.e. thematic analysis, grounded theory, qualitative content analysis, etc.).

### 6. Long course outline (800 to 1200 words)

NVivo is a software programme for qualitative data analysis. It is a powerful platform that supports text, PDF, video, audio, and picture data; open-ended surveys from Excel and Survey Monkey; bibliographic libraries from Endnote, Zotero, Mendeley and RefWorks; Internet data from web pages as well as social media from Facebook, Twitter, LinkedIn, YouTube; and notes taken with Evernote

and OneNote. NVivo supports a range of inductive, deductive and abductive methods to analyse qualitative data such as thematic and content analysis, single case and cross-case analysis, discourse, conversational and narrative analysis, grounded theory (different schools of), analytical induction, and qualitative research synthesis. The objective of this course is to provide participants with the knowledge and skills to use the basic and some of the advanced features of NVivo in their research. Participants will learn to apply their research design in NVivo, set up a project and organise data, code a range of data type, work with cases and attributes, seek patterns and identify relationships, and generate graphic displays to present findings. The course solely focuses on the functionalities of NVivo and does not cover methods to analyse qualitative. The course is structured around four modules which are detailed below.

#### **Module 1 Data Management**

The course opens with guidelines on how to apply one's research design in NVivo: type(s) of data collected, unit of analysis, cases and variables (when applicable), coding approach, and choice of analytic method. We then create an NVivo project, import and organise interview and focus group transcripts, audio and video recordings, PDF from literature review, survey data, Tweets and Facebook posts, and bibliographical metadata. When using NVivo for literature review, we learn to cross-reference sources that support or contradict a given line of argument, and learn how to show connections between sources and authors.

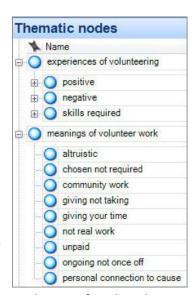


Organising data in folders

Our attention then turns to the transcription possibilities of NVivo, starting with transcribing audio and video recordings in-full, or working only with sequences of data. Looking at picture data, we explore the possibility to comment on a whole picture or only regions of it. We move on to create externals that link an NVivo project to outside information, as well as creating memos to record the analytic process. Module 1 concludes with lexical queries which search for the most cited words, as well as the occurrence and context in which keywords are mentioned across textual sources. We analyse the outputs in word clouds, dendograms, and wordtrees.

### **Module 2 Data Coding**

Module 2 presents the different techniques to automatically and manually code data in NVivo. We start by autocoding questions from structured interviews so the responses of each question are gathered in one node. Such data sorting, known as broad-brush coding, is very useful when one wants to examine everything that has been said about a question or theme across a dataset. But the analytic task of coding really starts with the creation of categories which may derive from theory or be inductively created from the data. Accordingly, we create a coding scheme where different types of codes co-exist and which capture ideas in text data, video transcripts, audio recordings, pictures, and social media data. The use of relationship nodes is introduced to formalise relationships between codes when working towards hypothesis generation or falsification. Module 2 concludes with mapping the coding process in models and graphs.



Development of a coding scheme

### **Module 3 Data Analysis**



Grouping cases in sets based on attributes

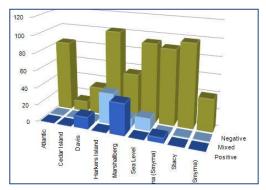
Module 3 is concerned with the preparation and the conduct of qualitative data analysis through seeking patterns and identifying relationships across the data. We first set up the case and variable structure from Excel which results in the cases being listed in a case structure with their variables assigned. With the case list set-up, we turn to the NVivo search tool which is time-saver functionality when one wants to quickly locate project items based on their name, creation date, or attribute values. We search for cases that match specific sociodemographics and grouped these in sets so we can later compare what, and how much, was said for specific codes across sets of respondents.

We then move on with coding-based queries which retrieve data based on patterns of codes co-occurrence, proximity, sequence, or exclusion. We first run coding queries that search for data coded at some nodes but only when mentioned by respondents of a given profile. For cross-case analysis, we run matrix queries which cross-tabulate cases with codes and we interpret the results using different numerical readings: coding density, number of cases, relative percentage, etc. Our interpretation is recorded in memos and is linked back to theory. Module 3 concludes with running group query to find out association between items across the data.

		A: Positive 🔻	B: Mixed ▼	C: Negative ▽
1 : Atlantic	V	0	0	82
2 : Bettie (Straits)	V	73	0	84
3 : Cedar Island	Y	0	0	12
4 : Davis	V	14	0	32
5 : Gloucester (Straits)	V	34	8	144
6 : Harkers Island	V	0	36	101
7 : Marshallberg	7	37	10	54
8 : Otway (Straits)	V	4	8	58
9 : Sea Level	V	0	14	92
10 : Smyrna (Smyrna)	V	6	0	88
11 : Stacy	V	0	0	97
12 : Straits (Straits)	Y	3	0	40
13 : Williston (Smyrna)	7	0	0	38

Cross-case comparison using matrix query

### **Module 4 Data Visualisation**



Presenting findings with charts

Module 4 proposes different graphic displays to effectively communicate one's research findings. We first discuss the rationales for choosing certain displays against others. We learn how to generate models, charts, graphs, dendograms, and maps. Moving on to building a solid audit trail to back up results and substantiate one's claims, we learn how to export results out of NVivo so these can be used in Word, Excel, and PowerPoint. The usefulness of generating nodes summary reports, which provide 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 a particular emphasis on the golden rules for successful data management, splitting and merging project files in a master project, and the measurement of intercoder reliability.

# 7. Day-to-day schedule (Friday 26 February to Saturday 27 February)

	Topics	Details	
Friday	Data management	Set up a project and organise data	
afternoon	Data coding	2. Transcribe audios, prepare picture logs	
		3. Cross-reference sources for literature review	
		4. Link a project to external information	
		5. Record the analytic process in memos	
		6. Run lexical queries	
Saturday	Data coding	Autocode structured data	
morning	Data analysis	2. Create codes inductively	
		3. Manage a coding scheme	
		4. Hypothesis generation / falsification	
		5. Generate case list	
		6. Assign variables to cases	
Saturday	Data analysis	1. Search items in a database	
afternoon	Data visualisation	2. Group items in sets	
		3. Run coding and matrix queries	
		4. Link interpretation back to theory	
		5. Present findings with visualisations	
		6. Export content out of NVivo	

# 8. Day-to-day reading list

This course is based on the book by Bazeley & Jackson 2013. *Qualitative Data Analysis with NVivo* (2nd ed.). You must obtain the book before the Winter School as the University of Bamberg library does not hold a copy.

	Readings (please list at least the compulsory reading for the scheduled day)			
Friday	Data Management			
afternoon	1. Format interview and FG data: chapter 3 pp. 59-61			
	2. Download data from internet: chapter 7 pp. 173-177			
	3. Set up a project and organise data: chapter 2 pp. 24-34; 45-46; chapter 3			
	internals pp. 61-67; chapter 9 survey pp. 195-204; social media pp. 209-216;			
	chapter 11 framework matrices pp. 259-260			
	4. Transcribe multimedia data: chapter 3 pp. 56-59; chapter 7 pp. 154-177			
	5. Link to external data and memos: chapter 2 pp. 36-38; chapter 3 pp. internals 62-			
	63; chapter 4 p. 87			
	6. Import literature review sources: chapter 8 pp. 178-194			
Saturday	Data Coding			
morning	1. Autocode structured data: chapter 5 pp. 108-110; chapter 9 survey: 207-208			
	2. Create codes and coding: chapter 4 pp. 68-94			
	3. Manage a coding scheme: chapter 5 pp. 95-106; 117-119			
	4. Build relationship nodes: chapter 10 pp. 230-234			
	5. Insert annotations and link data: chapter 2 pp. 34-45			
	6. Create case nodes and classifications: chapter 3 pp. 47-56; chapter 6 pp. 122-139;			
	chapter 9 survey: 204-207			
Saturday	Data Analysis			
afternoon	1. Search and group items: chapter 5 pp. 106-107; chapter 6 sets pp. 146-153			
	2. Run lexical, coding and matrix queries: chapter 5 word frequency / text search pp.			
	110-117; chapter 6 matrix query pp. 141-146; chapter 11 pp. 242-259; 260-265			

#### **Data Visualisation**

- 1. Present findings with visualisations: chapter 10 pp. 217-230; 234-241; chapter 2 pp. 28-30
- 2. Generate reports: chapter 11 pp. 265-269
- 3. Export content out of NVivo: chapter 5 pp. 119-121; chapter 6 pp. 139-140
- 4. Coordinate team work: chapter 12 pp. 270-296

### 9. Software and hardware requirements

This is a bring-your-laptop course where you must come with **NVivo 10 for Windows** installed on your laptop. You can download the 14-day free trial for Windows 10 for Windows here.

**DO NOT COME TO THE COURSE WITH NVIVO FOR MAC.** The NVivo for Mac is incomplete compared to the Windows version (see comparison table <a href="here">here</a>). If you want to run NVivo 10 for Windows on your Mac, consult the compatibility options <a href="here">here</a>. It is your responsibility to ensure that NVivo works well on your machine. No troubleshooting will be provided during the course.

Once NVivo is installed on your laptop, you must create a test project to ensure that the software works properly. Follow the instructions below.

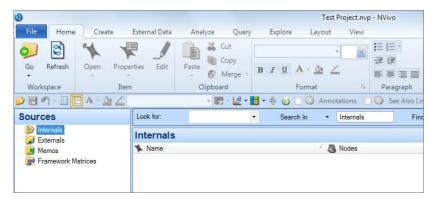
1. On your Desktop, launch NVivo by clicking on the NVivo 10 shortcut icon.



2. In the Welcome interface, below the Get Started heading, click New Project.



3. This will take you to the NVivo interface. If you get here, this means that NVivo is properly installed on your laptop. No further action is required. Close NVivo.



4. If you don't get to the NVivo interface or if the OK button is greyed out at the stage of creating a test project, uninstall NVivo from your computer and reinstall it a second time.

- 5. If, after a second installation, you still can't create a test project <u>you must contact QSR</u> International helpdesk to find out what the problem is.
- 6. To contact QSR, submit a <u>Customer Support Form</u>.
- 7. It is your responsibility to ensure that NVivo runs properly and is installed on time for the course.

### Hardware requirements - as per QSR International

Processor: 2.0 GHz Pentium 4-compatible processor or faster

Memory: 2 GB RAM or more Hard disk: Approximately 4 GB

### 10. Qualitative studies with 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.

Bandara, W. (2006). *Using NVivo as a Research Management Tool: a Case Narrative.* Quality and Impact of Qualitative Research. 3rd annual QualIT Conference. Document No. 1920952918 Retrieved

Bringer, J. D., Johnston, L. H., & Brackenridge, C. H. (2004). Maximising transparency in a doctoral thesis: the complexity of writing about the use of QSR\* NVIVO within grounded theory study. *Qualitative Research*, 4(2), 247-265.

Bringer, J. D., Johnston, L. H., & Brackenridge, C. H. (2006). Using computer-assisted qualitative data analysis software to develop a grounded theory project. *Field Methods*, *18*(3), 245-266.

Hutchison, A. J., Johnston, L. H., & Breckon, J. D. (2010). Using QSR-NVivo to facilitate the development of a grounded theory project: an account of a worked example. *International Journal of Social Research Methodology*, 13(4), 283-202.

Johnston, L. H. (2006). Software and method: Reflections on teaching and using QSR NVivo in doctoral research. *International Journal of Social Research Methodology*, *9*(5), 379-391.

Leech, N. L., & Onwuegbuzie, A. J. (2011). Beyond Constant Comparison Qualitative Data Analysis: Using NVivo. *School Psychology Quarterly*, *26*(1), 70-84.

Rich, M., & Patashnick, J. (2011). Narrative research with audiovisual data: Video Intervention/Prevention Assessment (VIA) and NVivo. *International Journal of Social Research Methodology*, *5*(3), 245-261.

Siccama, C., & Penna, S. (2008). Enhancing Validity of a Qualitative Dissertation Research Study by Using NVIVO. *Qualitative Research Journal*, 8(2), 91-103.

Wainwright, M., & Russell, A. (2010). Using NVivo Audio-Coding: Practical, Sensorial and Epistemological Considerations. *Social Research Update*, 60(1), 1-4.

Wiltshier, F. (2011). Researching With NVivo 8. Forum Qualitative Sozialforschung / Forum: Qualitative Social Research, 12(1). Retrieved from <a href="http://www.qualitative-research.net/index.php/fgs/article/viewArticle/1628/3146">http://www.qualitative-research.net/index.php/fgs/article/viewArticle/1628/3146</a>.

Wong, L. P. (2008). Data analysis in qualitative research: a brief guide to using NVivo. *Malaysian Family Physician 2008*, *3*(1), 14-20. Retrieved from <a href="http://www.e-mfp.org/2008v3n1/pdf/NVivo">http://www.e-mfp.org/2008v3n1/pdf/NVivo</a> in Qualitative Research.pdf.

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

# NVivo videos on YouTube

General videos	'How to' video
NVivo 10 Tutorial: Get up and running with NVivo 10	
What's new in NVivo 10	Importing a document
Introducing NVivo 10 for Mac	<u>Create a new project</u>
Introducing NVivo	Importing audio files
Literature review with NVivo	Importing videos
NVivo and Endnote: improving your literature review	Importing images
Literature review with NVivo	Importing PDFs
	Importing datasets
Tutorial videos	<u>Creating nodes</u>
Working with YouTube data	Coding a document
Working with Twitter data	Coding an audio file
Capturing web data in NVivo	Coding a video
Work with audio, video and images	Coding an image
Work with survey results	Coding PDFs
Work with interviews, articles and other documents	Coding a dataset
Organize material into themes with coding	Importing classifications and attributes
Work with information about people, places and other	<u>Creating nodes from sources</u>
cases	<u>Classifying nodes</u>
Explore your coding	Matrix coding query
Find themes and analyze text	Word frequency query
Visualize your project	<u>Text search query</u>

## 11. Lab requirement

None - the course will not be held in a computer lab.

## 12. Other recommended courses (before or after this course)

The following other ECPR Methods School courses could be useful in combination with this one in a 'training track'. NB this is an indicative list.

## Before this course:

	Course title	Summer School	Winter School
1	Research Designs	X	

### After this course:

	Course title	Summer School	Winter School
1	Expert Interviews for Qualitative Data Generation	X	
2	Issues in Political, Policy and Organizational	X	
	Ethnography		
3	Qualitative Data Analysis: Concepts and Approaches	X	
4	Analysing Discourse I, II	X	