

Introduction to Nvivo – a tool for qualitative data analysis

2024-03-13

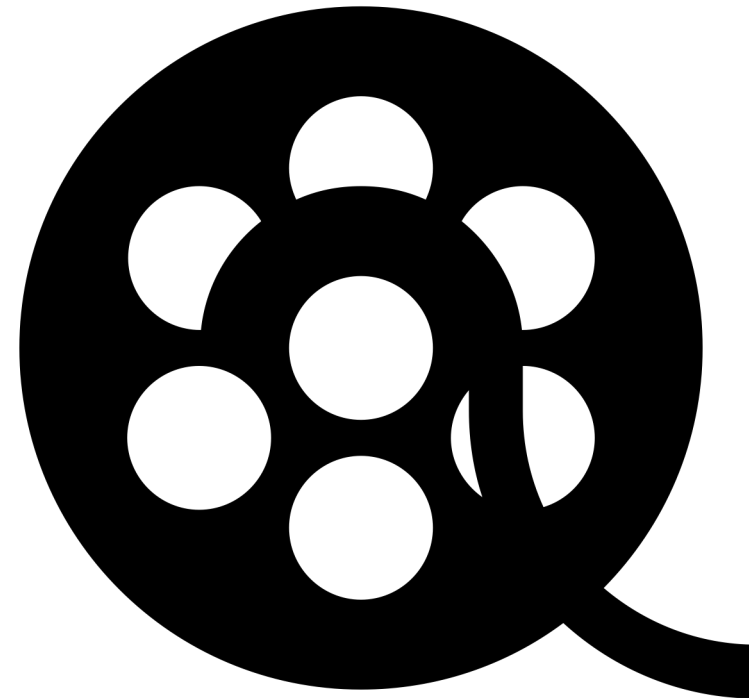
sara.landerdahl.stridsberg@mdu.se

Librarian, Mälardalen University

Housekeeping rules

This presentation will be recorded.

Questions will be answered after the presentation. Please use the Q & A (Frågor och svar)



Agenda

- Brief introduction to QDA software and Nvivo
- Things to consider when creating a project
- Import and organize files
- Memos
- Coding
- Annotations and links
- Cases and case classifications
- Queries
- Visualization
- Reports

Qualitative Data Analysis Software



Qualitative Data Analysis Software (QDA Software) or Computer-assisted qualitative data analysis software (CAQDAS), is software that assist researchers in performing qualitative analyses.



There is a large variety of QDA software, both free and payed licenses. Some are specialized in analyzing text and other aimed at video mark up. Common to all CADQDAS or QDA software is that they are used to organize, manage and analyze information.

Nvivo

NVivo is a qualitative data management, coding and markup tool. It is designed to organize, analyze and create a better understanding of unstructured or qualitative data such as interviews, survey responses, articles, social media or other types of online material.

With Nvivo you can:

- import data from a wide range of sources
- mark up text, video and audio
- ask questions to your data to identify themes and draw conclusions
- visualize your data



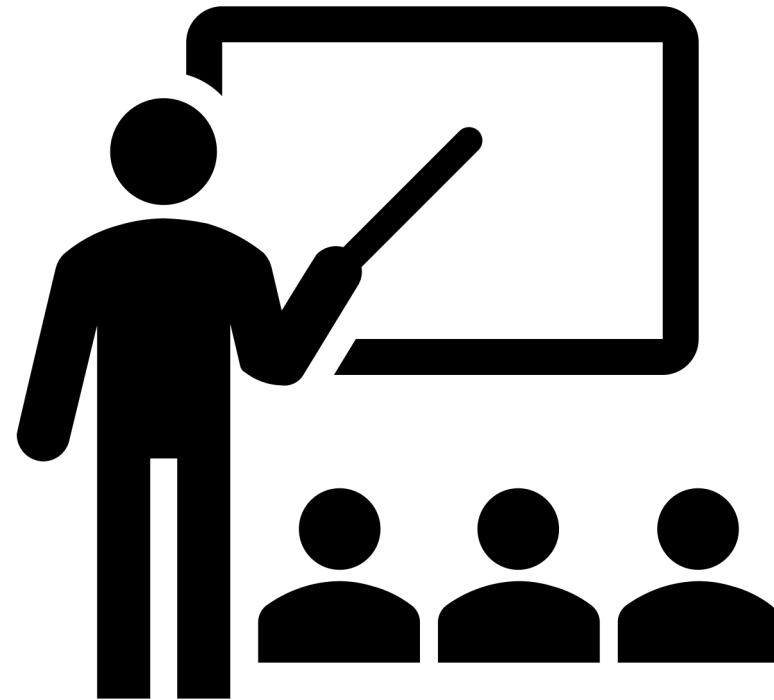
NVivo manual (version 14)

Windows:

<https://help-nv.qsrinternational.com/14/win/Content/welcome.htm>

Mac:

<https://help-nv.qsrinternational.com/14/mac/Content/welcome.htm>



Things to consider when creating a project

Where to save

- Your NVivo project should be saved on your local computer, not on a network location or USB stick.

Language

- Nvivo supports Chinese, English (UK), English (US), French, German, Japanese, Portuguese and Spanish. However your content can be in any language, but some functionalities such as stops words when doing a word frequency query won't work.

Autosave or not?

- Set reminders for saving if you don't use autosave

Enable user logs

- If you are more than one working on the same project



<https://help-nv.qsrinternational.com/14/win/Content/projects-teamwork/save-and-copy-projects.htm> (Windows)
<https://help-nv.qsrinternational.com/14/mac/Content/projects-teamwork/save-and-copy-projects.htm> (Mac)

Teamwork

Many projects involve multiple researchers working together. There are three ways that NVivo allows you to manage collaborative work :

- Collaboration Cloud - an add-on module allowing teams to collaborate in real-time on NVivo projects.
- NVivo Collaboration Server - installed on a server at your institution. It allows multiple users in the network, on their local NVivo installations (Windows only), to work on the same project at the same time.
- Manual – cooperate manually by creating a project master file and giving a copy to each team member. They work on their copies independently then return them for you to merge into the master file.



<https://help-nv.qsrinternational.com/14/win/Content/projects-teamwork/teamwork.htm> (Windows)
<https://help-nv.qsrinternational.com/14/mac/Content/projects-teamwork/teamwork.htm> (Mac)

Key terms in Nvivo



- File
 - include the materials you want to analyze and your ideas about them, i.e. data, documents, material, project items, survey or transcripts
- Codes (Nodes)
 - You code files in order to collect in one place—called a code—all the content related to themes you identify.
- Cases
 - objects of study, units of analysis or units of observation (people, places, organizations or artifacts)
- Classifications
 - attributes of your cases or files, for example characteristics, demographics or descriptors

NVivo workspace

Title bar

Ribbon

Navigation view

Detail view

List view

The screenshot shows the NVivo workspace interface. On the left is the navigation view with a tree structure. The main area is split into a list view (Interviews) and a detail view (Dorothy's interview text). The top ribbon contains various toolbars for document editing and analysis.

Name	Codes	References
Barbara	44	198
Betty and Paul	13	41
Charles	38	136
Dorothy	39	128
Helen	14	50
Ken	17	56
Margaret	35	78
Maria and Daniel	43	150
Mary and James	42	111
Richard and Patricia	35	101
Robert	31	96
Susan	47	146
Thomas	28	112
William	47	106

Interviews

Interview with Dorothy on April 21st, 2009, in Williston, North Carolina. Dorothy is a retired department store clerk.

Q.1. Connection to Down East

Henry
What is your connection to Down East?

Dorothy
Well, I've lived in this area – well, I've lived in this house since '63. I was house next door. I know both of my sets of my grandparents were born here. And I would assume their parents. And I would imagine most of them worked on the water farmed.

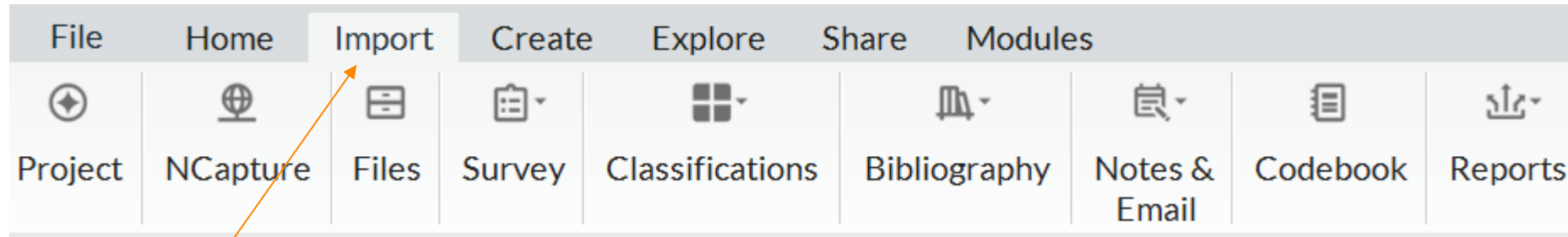
Henry
Is this, where we are today, is this inherited family land that's still part of the family?

Dorothy
Yes, yes. I know both my grandparents were born and raised further on down the road toward the shore. And this land here, I don't know who it belonged to at the beginning, but they could go in and clear a plot of land and claim it. And that's what my granddaddy and two of his brothers did.

Q.2. Connection to Down East natural environment

Henry
Are there particular places Down East that are important to you? I mean, you talk about how special the whole area is. Are there particular parts of it that are particularly important?

Import and organize files



- Import your data, using the options on the Import tab
- Organize your files in folders

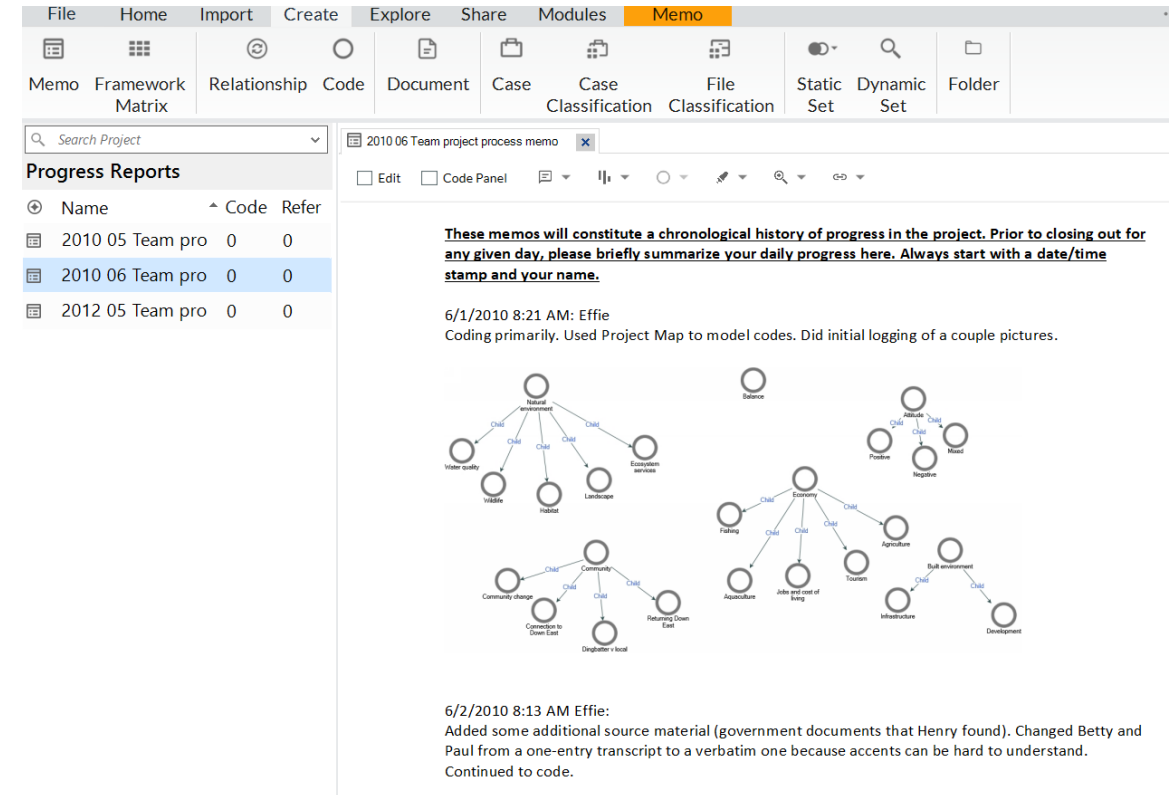


<https://help-nv.qsrinternational.com/14/win/Content/concepts-strategies/bring-in-sources-and-get-organized.htm> (Windows)
<https://help-nv.qsrinternational.com/14/mac/Content/concepts-strategies/bring-in-sources-and-get-organized.htm> (Mac)

Journaling with memos

Memos could work as a research journals, or as annotations about for example a file or a code.

Memos is a way to keep your analysis separate from (but linked to) the material you are analyzing.



The screenshot shows the Memo application interface. The top menu bar includes File, Home, Import, Create, Explore, Share, Modules, and Memo. Below the menu is a toolbar with icons for Memo, Framework Matrix, Relationship, Code, Document, Case, Case Classification, File Classification, Static Set, Dynamic Set, and Folder. A search bar is located below the toolbar. On the left, a 'Progress Reports' table is visible:

Name	Code	Refer
2010 05 Team pro	0	0
2010 06 Team pro	0	0
2012 05 Team pro	0	0

The main window displays a memo titled '2010 06 Team project process memo'. The memo content includes a bold instruction: **These memos will constitute a chronological history of progress in the project. Prior to closing out for any given day, please briefly summarize your daily progress here. Always start with a date/time stamp and your name.**

The first entry is dated 6/1/2010 8:21 AM by Effie, describing coding and the use of Project Map to model codes. Below the text are three hierarchical diagrams representing project maps. The first diagram shows 'Natural environment' branching into 'Water quality', 'Viable', 'Habitat', 'Landscape', and 'Ecosystem services'. The second diagram shows 'Economy' branching into 'Fishing', 'Agriculture', 'Tourism', 'Infrastructure', and 'Development'. The third diagram shows 'Community' branching into 'Community change', 'Community', and 'Relating Down East', with further sub-branches.

The second entry is dated 6/2/2010 8:13 AM by Effie, describing the addition of source material and changes to a transcript. Below the text is a small diagram showing 'Built environment' branching into 'Infrastructure' and 'Development'.



<https://help-nv.qsrinternational.com/14/win/Content/notes/memos.htm> (Windows)

<https://help-nv.qsrinternational.com/14/mac/Content/notes/memos.htm> (Mac)

Annotations

With annotations you can make comments about selected content.

You can make annotations in documents, audio and video files, pictures and PDFs. You can also make annotations about codes and memos.

Barbara

I got a degree in geology. When I came back here with my husband, I had done ple mapping and working with GIS, and so I got a job with a soil scientist here who help to get septic permits – and environmental field assessments, watershed mapping, v delineation.

Henry

What kind of insight has that given you into the area, given your particular professi

Barbara

Well, the one thing is that it's very low. The land is so low and the water table is so it's tough for people to get septic permits. As environmental standards have gottes stringent, some local people that have inherited land are finding that they can't ge or they have but they have to install a very, very expensive pretreatment system, v

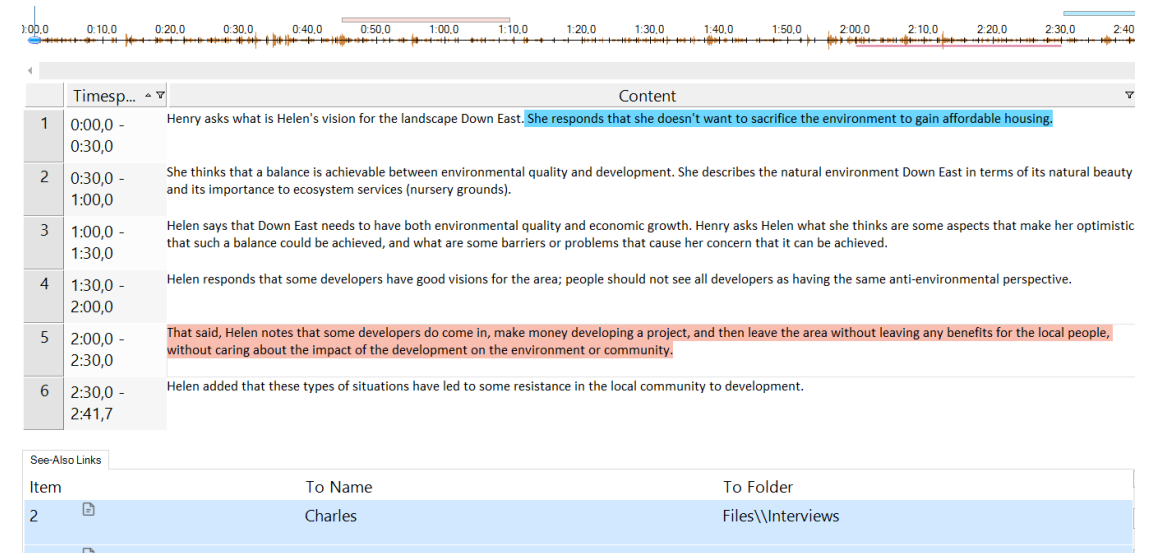
Annotations	
Item	Content
2	GIS: Geographic Information Systems -- using computer software to develop maps



<https://help-nv.qsrinternational.com/14/win/Content/notes/annotations.htm> (Windows)
<https://help-nv.qsrinternational.com/14/mac/Content/notes/annotations.htm> (Mac)

Links

- You can create links between items, for example files, in your project.
- You can also create hyperlinks to online material.



	Timesp...	Content
1	0:00,0 - 0:30,0	Henry asks what is Helen's vision for the landscape Down East. She responds that she doesn't want to sacrifice the environment to gain affordable housing.
2	0:30,0 - 1:00,0	She thinks that a balance is achievable between environmental quality and development. She describes the natural environment Down East in terms of its natural beauty and its importance to ecosystem services (nursery grounds).
3	1:00,0 - 1:30,0	Helen says that Down East needs to have both environmental quality and economic growth. Henry asks Helen what she thinks are some aspects that make her optimistic that such a balance could be achieved, and what are some barriers or problems that cause her concern that it can be achieved.
4	1:30,0 - 2:00,0	Helen responds that some developers have good visions for the area; people should not see all developers as having the same anti-environmental perspective.
5	2:00,0 - 2:30,0	That said, Helen notes that some developers do come in, make money developing a project, and then leave the area without leaving any benefits for the local people, without caring about the impact of the development on the environment or community.
6	2:30,0 - 2:41,7	Helen added that these types of situations have led to some resistance in the local community to development.

See-Also Links		
Item	To Name	To Folder
2	Charles	Files\Interviews



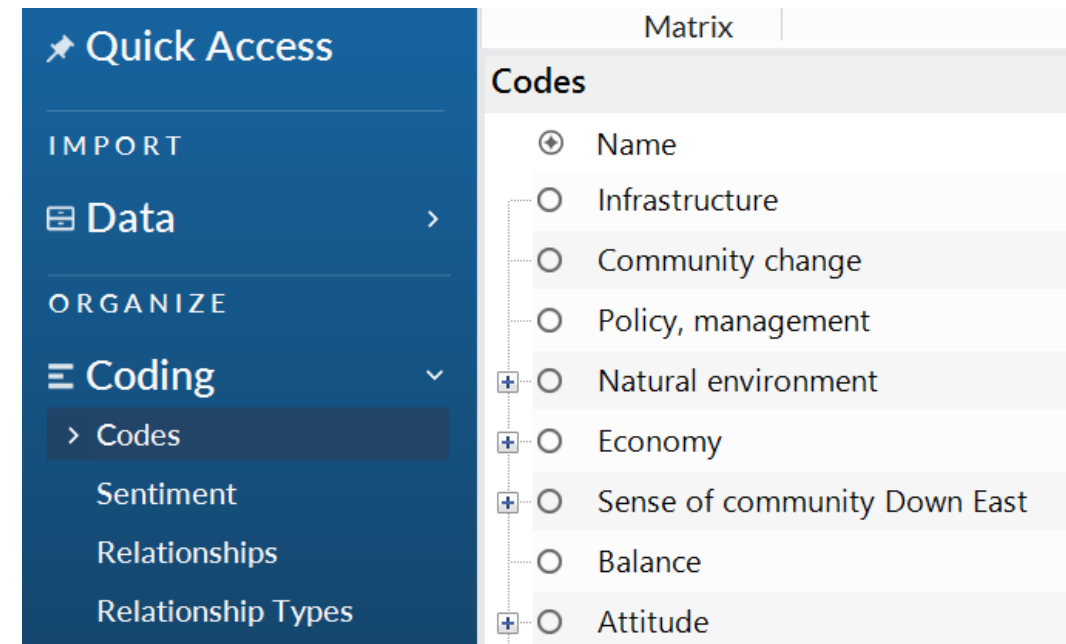
<https://help-nv.qsrinternational.com/14/win/Content/notes/links.htm> (Windows)
<https://help-nv.qsrinternational.com/14/mac/Content/notes/links.htm> (Mac)

Demo



Codes

- Codes brings together in one place all the references to specific themes, emotions or relationships from your data.
- You can code words, sentences or whole files.
- You can create a coding structure in advance or code as you go (in vivo).
- You can use queries to automatically code files based on words or phrases they contain.



Automatic coding



Autocode by using existing coding patterns

Code at least 10 % of your material to "learn" Nvivo, and then let the software continue the work.



Autocode by theme

Nvivo code on its own based on noun phrases

Can be used as a way to check your own coding – have you missed anything?



Code for sentiment – positive or negative



Auto coding is based on algorithms, and you must always check and correct.

Works (best) if your material is in English or any other language supported by Nvivo.

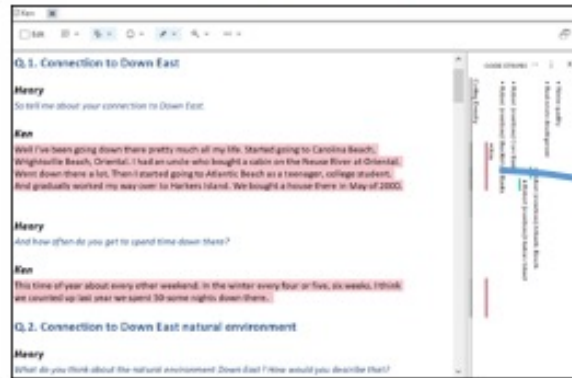
Doesn't understand nuances in language such as sarcasm

Demo

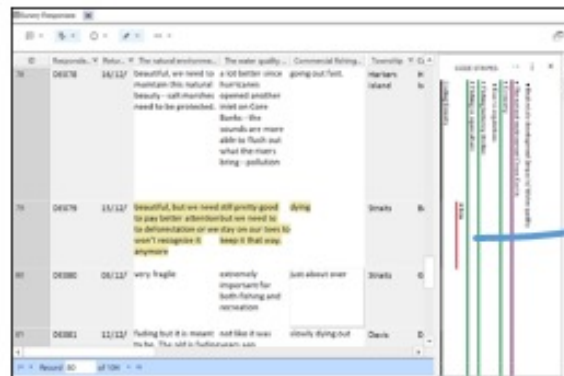


Cases

Ken's one-on-one interview



Ken's survey responses



Ken's comments in a focus group



Ken's case

Attribute	Value
Township	Cedar Island
Community	Cedar Island
Generations Down East	3 or more
Commercial Fishing	No
Recreational Fishing	Yes
Income Tied to Resources	no, never
Opinion - Pace of Development	too fast
Age Group	60 - 69
Gender	Male
Education Level	Completed undergraduate college



<https://help-nv.qsrinternational.com/14/win/Content/cases/cases.htm> (Windows)
<https://help-nv.qsrinternational.com/14/mac/Content/cases/cases.htm> (Mac)

Create cases

Create cases manually

- If you have a smaller number of cases
- working with different types of qualitative data

Create cases automatically

- Useful if you are working with a large number of cases
- Works with interviews, focus groups, surveys and social media

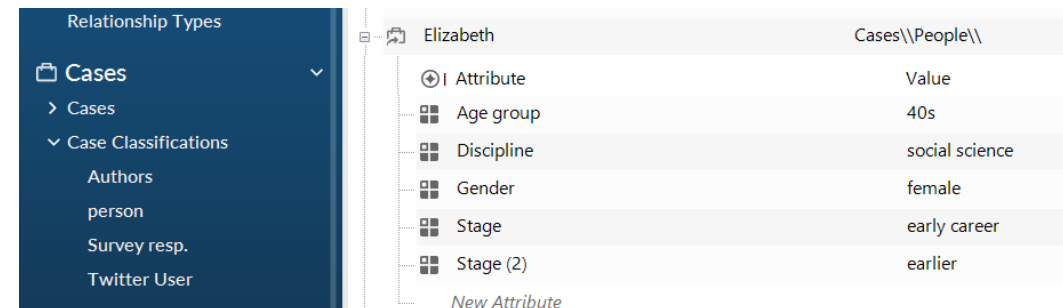


<https://help-nv.qsrinternational.com/14/win/Content/cases/create-cases-manually.htm> (Windows)
<https://help-nv.qsrinternational.com/14/mac/Content/cases/create-cases-manually.htm> (Mac)

<https://help-nv.qsrinternational.com/14/win/Content/cases/create-cases-automatically.htm> (Windows)
<https://help-nv.qsrinternational.com/14/mac/Content/cases/create-cases-automatically.htm> (Mac)

Classification

- You can classify both cases and files
- You can classify manually, by using Nvivos predefined classifications or by importing a case classification sheet

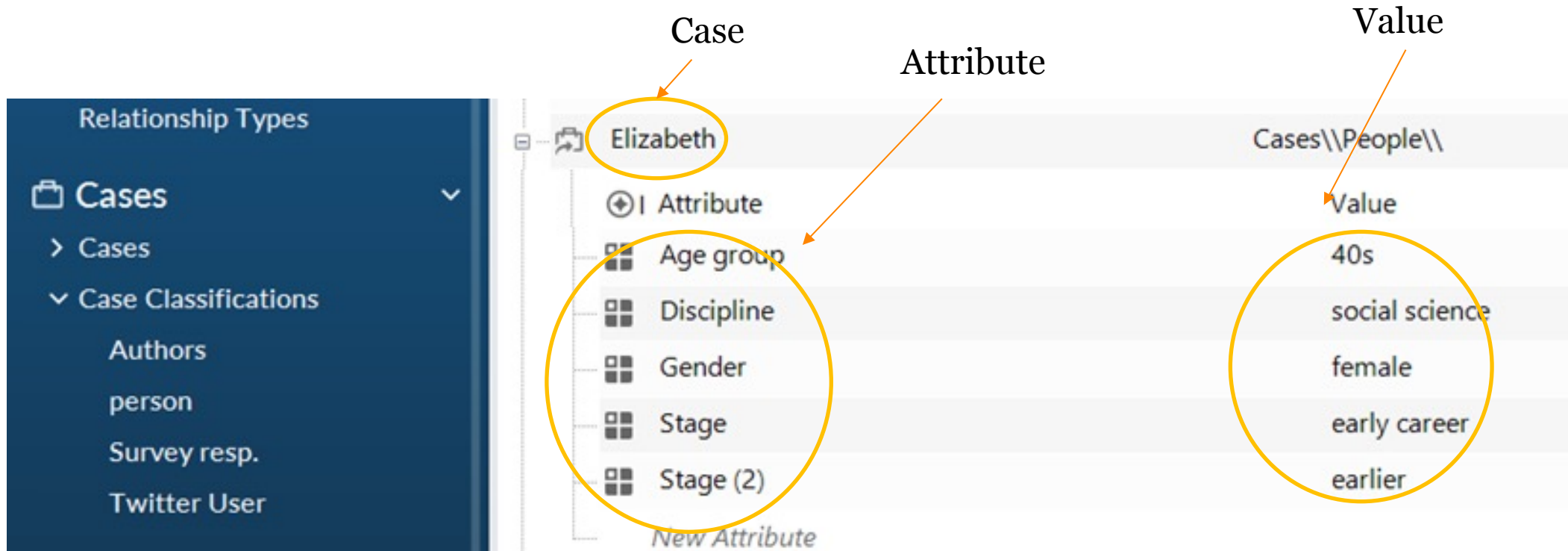


Relationship Types	Case Name	Path
Relationship Types	Elizabeth	Cases\\People\\
+	Attribute	Value
+	Age group	40s
+	Discipline	social science
+	Gender	female
+	Stage	early career
+	Stage (2)	earlier
	<i>New Attribute</i>	



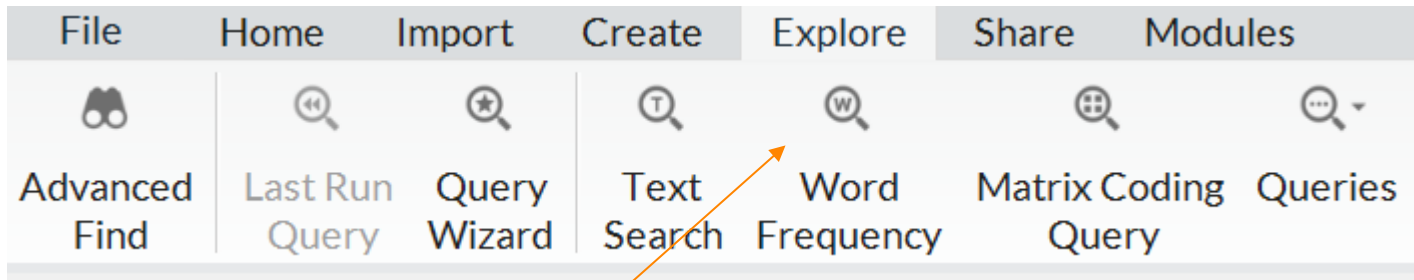
<https://help-nv.qsrinternational.com/14/win/Content/classifications/about-classifications.htm> (Windows)
<https://help-nv.qsrinternational.com/14/mac/Content/classifications/about-classifications.htm> (Mac)

Case, attribute and values



Queries

- Queries help you to explore your data.
- You can query your material to find and analyze the words or phrases in your files and codes.



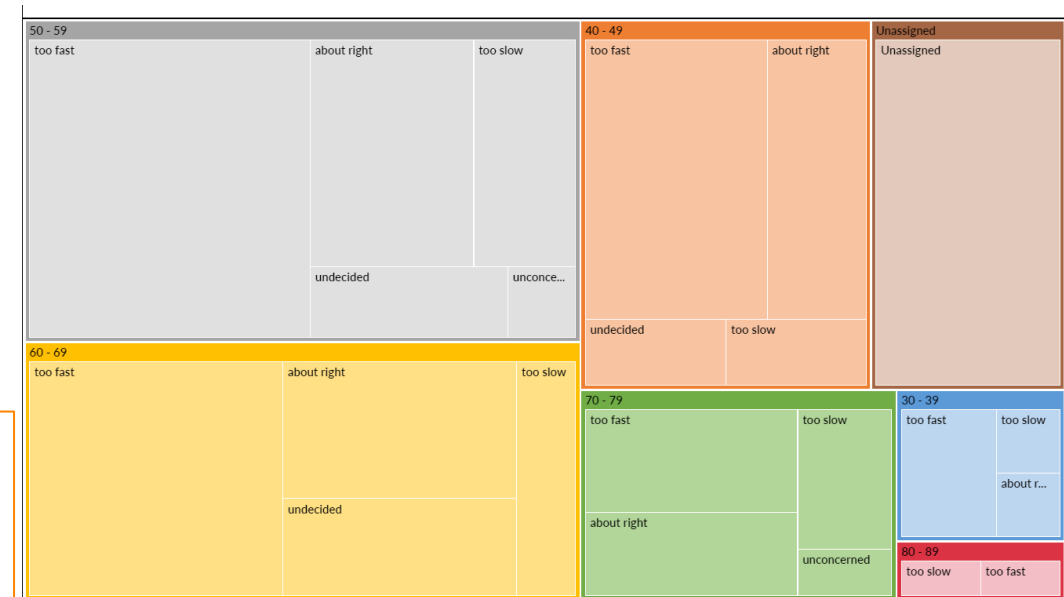
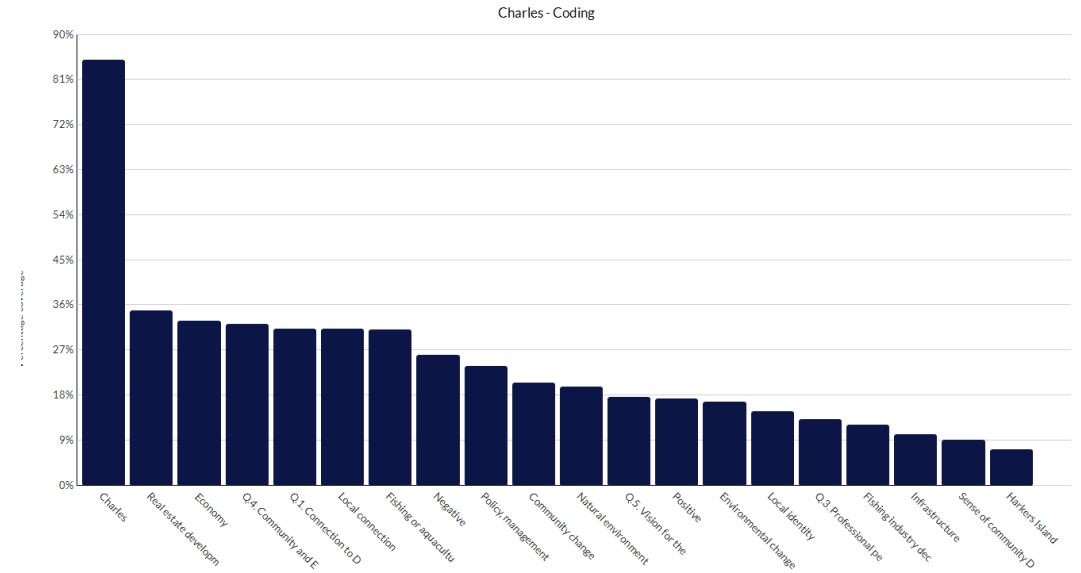
- You find queries under the Explore tab.



<https://help-nv.qsrinternational.com/14/win/Content/queries/queries.htm> (Windows)
<https://help-nv.qsrinternational.com/14/mac/Content/queries/queries.htm> (Mac)

Visualizations

Visualizations helps you to analyze your material, get a greater knowledge of it and to use when presenting your project.



<https://help-nv.qsrinternational.com/14/win/Content/vizualizations/visualizations.htm>

(Windows)

<https://help-nv.qsrinternational.com/14/mac/Content/vizualizations/visualizations.htm> (Mac)

Reports

EXPLORE

- Queries >
- Visualizations >
- Maps
- Reports >
 - Formatted Reports
 - Text Reports

- Formatted Reports**
- Name
 - Case Classification Summary Report
 - Code Summary Report
 - Coding Structure Report
 - Coding Summary By Code Report**
 - Coding Summary By File Report
 - File Classification Summary Report
 - File Summary Report
 - Project Summary Report

Coding Summary By Code Environmental Change Down East 2024-01-22 09:12

Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
Code						
Codes\\Attitude\\Mixed						
Audio						
Files\\Interviews\\Helen						
No	Interview	0,2244	2			
				1	HGP	2010-06-03 21:03
				2	WWS	2010-05-15 23:43
Dataset						
Files\\Social Media\\CarteretCounty on Twitter						
No	Reference	0,0333	6			
				1	WWS	2015-08-06 18:01



<https://help-nv.qsrinternational.com/14/win/Content/projects-teamwork/reports-extracts.htm> (Windows)

Demo



Save your project in an interoperable format



After finishing your project, save it in a format that is possible to open for non NVivo users, for example REFI-QDA, to enable reusability.



<https://help-nv.qsrinternational.com/14/win/Content/projects-teamwork/refi-qda%20standard.htm> (Windows)
<https://help-nv.qsrinternational.com/14/mac/Content/projects-teamwork/refi-qda%20standard.htm> (Mac)

Thank you for listening!

