

Introduction to NVivo: Qualitative Coding & Text Analysis

Digital Integration Teaching Initiative

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Qualitative Data Analysis

Professor Whynot, Fall 2025

Qualitative Coding

Qualitative coding is when you create a list of themes, or a **schema**, that you want to highlight in a set of primary/secondary sources. Then, you go through all your sources and highlight particular moments from the text according to those themes.

Agenda

- ❑ What is qualitative coding?
- ❑ What is NVivo?
 - Important NVivo-specific vocabulary and functions
 - NVivo demonstration
 - Understand how to use NVivo as a research tool
 - Learn the differences between NVivo file types and why knowing this is important

Slides and handouts available at: bit.ly/fa25-whynot-intp3970-nvivo

Getting started: Qualitative Coding with NVivo

What is NVivo?

- ❓ NVivo is a **text analysis** and **research organization** software that is available through [Northeastern's Student Hub](#) > Resources > IT Services > Software Downloads.
- ❓ NVivo provides methods for you to annotate and code documents with user-created tags (codes), summarize and visualize these codes, and organize research materials.

What is NVivo Useful For?

NVivo is particularly helpful for organizing and annotating research materials such as:

- ❑ **Primary sources:** any primary sources you may be analyzing such as letters, field notes, or documents from an archive
- ❑ **Secondary sources:** scholarly articles, newspaper articles, book chapters.
- ❑ **Your own notes** about your project (you can even compose in NVivo!)

Other functions of NVivo

- ❑ Create projects that store, organize, and code documents/files
- ❑ Provide a method for you to code your documents with a user-created coding schema (codes)
- ❑ Query, summarize, organize, and visualize information about your coding
- ❑ Conduct forms of computational text analysis, like word counts, on the documents, themselves
- ❑ Conduct social network analysis with social media datasets

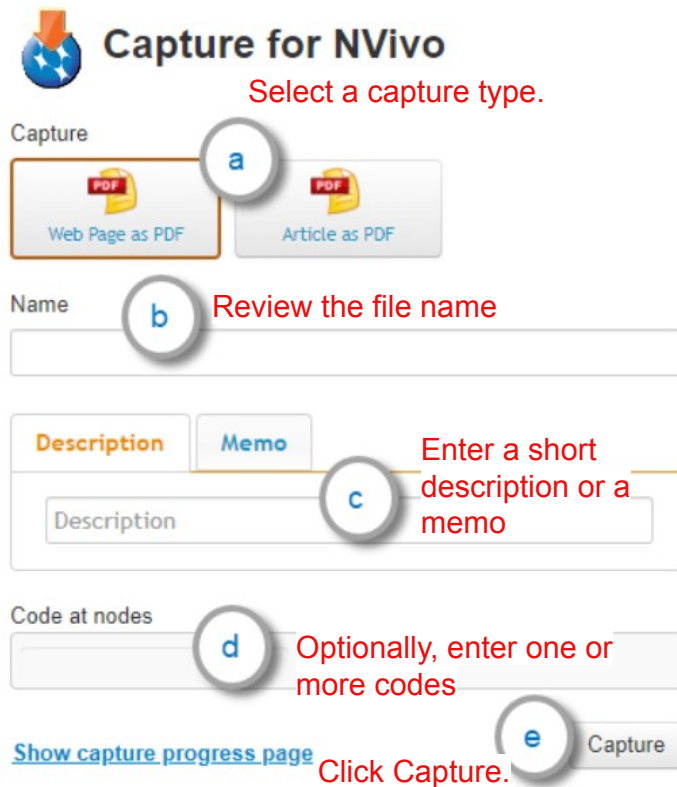
NVivo Vocabulary

Full definitions available on [the NVivo handout](#)

- ❑ **Data:** your research documents & files
- ❑ **Codes:** the ways to annotate the themes/concepts in your research.
- ❑ **Relationships:** coding connections between two data items
- ❑ **Cases:** units of analysis for your research.
- ❑ **Maps:** visualization tool to see connections between the cases and codes
- ❑ **Query:** a flexible way to explore and analyze your files, cases, and codes

NCapture

- ❑ NCapture is a free Chrome extension to capture web pages, online articles, Facebook and Youtube content and add annotations, memos, and codes. The captured content is saved as an NCapture file (.nvcx) which you can import into your NVivo project.
- ❑ Please be mindful of obtaining consent for individual information you are capturing. Be aware of the current website terms and conditions when capturing data.



The screenshot shows the 'Capture for NVivo' interface. At the top right is a blue question mark icon. Below the title 'Capture for NVivo' is the instruction 'Select a capture type.' in red. There are two buttons: 'Web Page as PDF' (labeled 'a') and 'Article as PDF'. Below these is a 'Name' field (labeled 'b') with the instruction 'Review the file name' in red. Underneath is a tabbed interface with 'Description' (labeled 'c') and 'Memo' tabs. The 'Description' tab has a text input field with the instruction 'Enter a short description or a memo' in red. Below that is a 'Code at nodes' field (labeled 'd') with the instruction 'Optionally, enter one or more codes' in red. At the bottom left is a link 'Show capture progress page' in blue. At the bottom right is a 'Capture' button (labeled 'e') with the instruction 'Click Capture.' in red.

Feel free to ask questions at any point during the presentation!

Querying

Querying, or asking something from your data, in NVivo provides multiple ways to explore both your codes and your text.

- ❑ **Word Frequency:** Counts the number of times words (with stopwords removed) appear in one or more files. Stopwords have non-significant meaning and appear frequently, like “the”, “a,” “is,” etc. They can inflate word frequencies without adding meaning, and are typically removed.
- ❑ **Coding:** Shows the number of codes, text that was coded, and the files.
- ❑ **Crosstab:** cross reference codes and case classifications. For example, you might want to know how often a particular code appears in both scholarly articles and your primary texts.

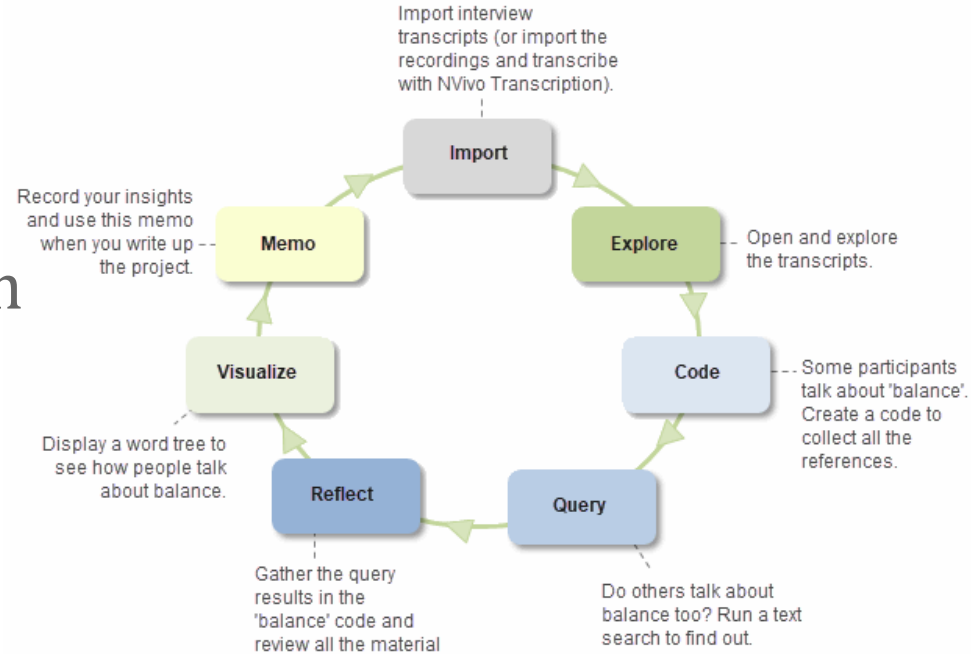
Coding & Organizing Literature Reviews

You can import reference files from EndNote, Zotero, and other citation management tools to organize a literature review. In your citation management tool, export the library as an XML (EndNote) or RIS file (Zotero).

1. Select the XML or RIS file from your directory.
2. Choose to display references by Author and Year, or Title.
3. Select the option to assign data to the Reference classification, or to other classifications (book, journal article, etc).
4. Select the option to replace attributes or memos with file notes, abstract, and keywords.
5. Click Import.

Making effective codes

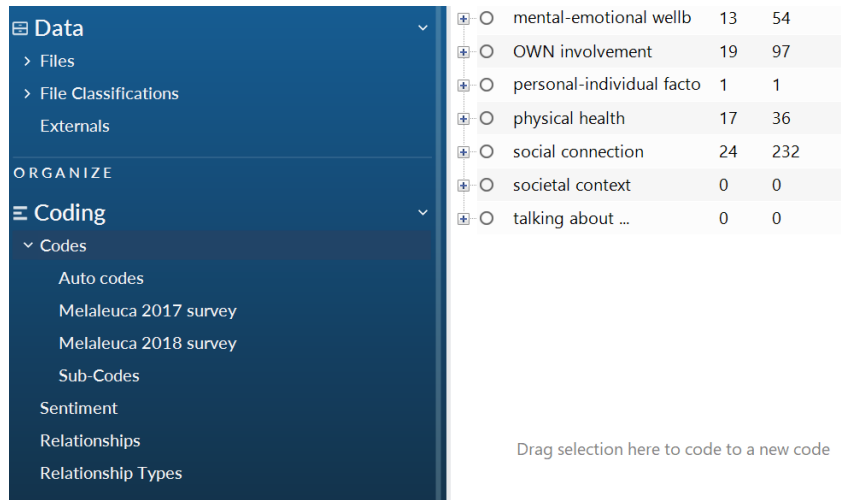
The codes you create are themselves **arguments**; you are choosing what information you value and want to extract from the transcripts. This is often an iterative process.



Source: Lumivero - Workflow Overview

Codes

The list of themes or codes you will use to code your files. The “**codes**” folder will be empty until you add your own! You can add codes and sub-codes.



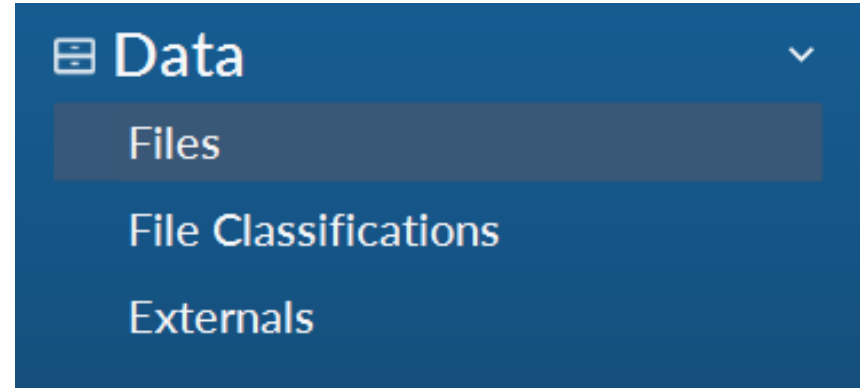
The screenshot shows a software interface with a dark blue sidebar on the left and a white main area on the right. The sidebar has a 'Data' section with a dropdown arrow, containing 'Files', 'File Classifications', and 'Externals'. Below this is an 'ORGANIZE' section, followed by a 'Coding' section with a dropdown arrow. The 'Coding' dropdown is open, showing a 'Codes' folder with a minus sign, and a list of codes: 'Auto codes', 'Melaleuca 2017 survey', 'Melaleuca 2018 survey', 'Sub-Codes', 'Sentiment', 'Relationships', and 'Relationship Types'. The main area on the right displays a list of codes with their counts. Each code has a plus icon in a circle to its left. The codes and counts are: 'mental-emotional wellb' (13, 54), 'OWN involvement' (19, 97), 'personal-individual facto' (1, 1), 'physical health' (17, 36), 'social connection' (24, 232), 'societal context' (0, 0), and 'talking about ...' (0, 0). Below the list, there is a text prompt: 'Drag selection here to code to a new code'.

+	mental-emotional wellb	13	54
+	OWN involvement	19	97
+	personal-individual facto	1	1
+	physical health	17	36
+	social connection	24	232
+	societal context	0	0
+	talking about ...	0	0

Drag selection here to code to a new code

Data

The “**Data**” in NVivo are all the research materials you are using (scholarly articles, transcriptions, newspapers, research notes, etc.).



“**Files**” will be where you can access all the research materials you have imported into this project.

Important Reminders

- ❑ NVivo can import all types of files, including .docx, .pdf, .doc, .csv, .png, .jpeg, .txt, video/audio files, and more.
- ❑ You should always **save** your original documents on your local computer or in cloud storage, even if these documents are imported into NVivo. NVivo can store documents, but it is more of an organization and analysis tool, rather than a storage option.

NVivo is NOT crossplatform friendly

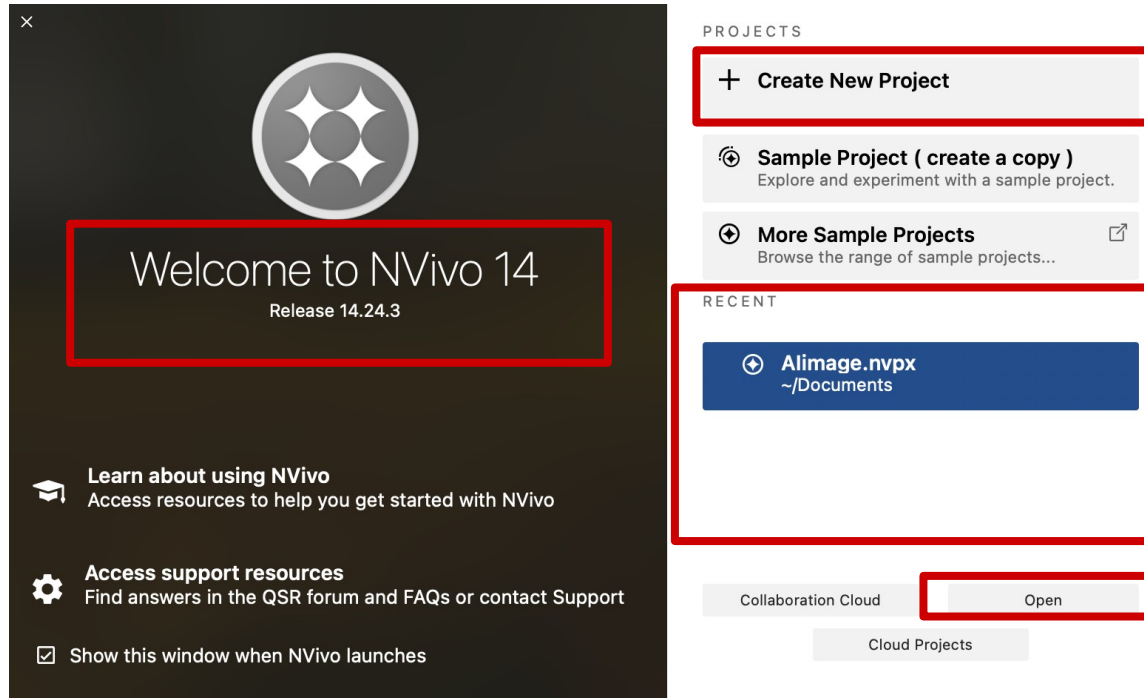
The Mac and PC versions of Nvivo—as well as the version numbers—are different and have different file types.

- ❑ Mac NVivo projects end in .npvx and can only open that file project type
- ❑ Windows NVivo projects end in .npv, but can open both .npv *and* .npvx
- ❑ Version numbers (11, 12, 14) also impact which projects can be opened on which platform

Anatomy of Nvivo: Mac

Anatomy of NVivo: Opening on Macs

Your version number (you should have version 12 or 14)



Create a new **project** (stores all your documents, codes, etc)

The recent projects you opened

Open another project that is not recent

Anatomy of NVivo: Projects on Macs

Menu to access files, codes, cases, notes, etc.

Name	Codes	References	Created on	Created by	Modified on	Modified by	Color
About the NVivo for Mac...	0	0	8/10/15, 12:17 AM	WWS	1/28/20, 11:52 PM	WWS	
Overview of Sample Proje...	0	0	7/21/10, 3:37 PM	WWS	11/9/15, 10:40 PM	WWS	

Toolbar to access functions

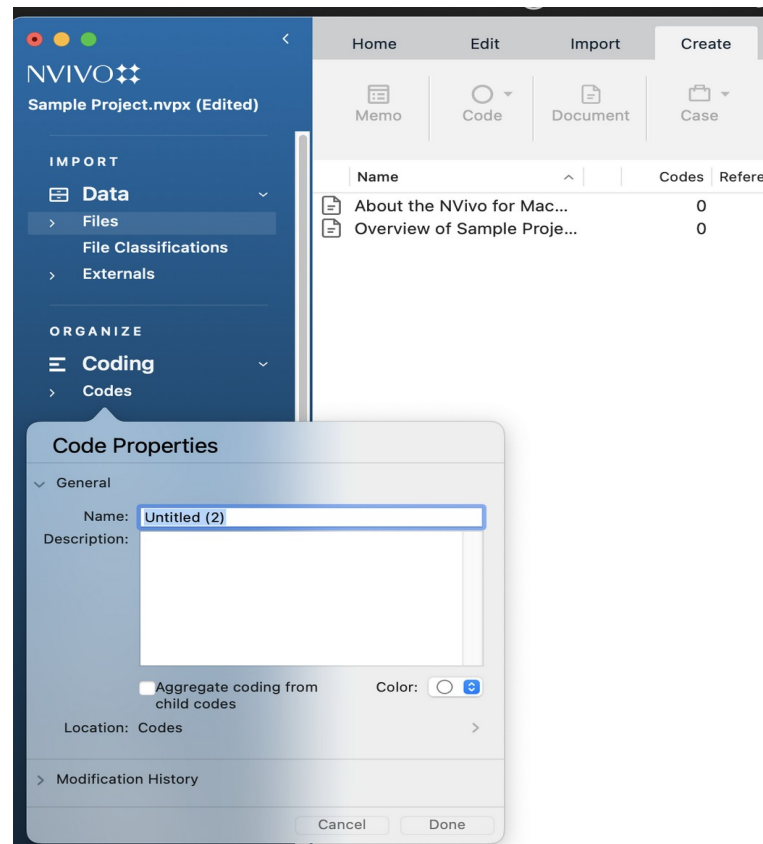
The window that will open the files, queries, etc. You can annotate documents here.

List of codes, files, etc.

Feel free to ask questions at any point during the presentation!

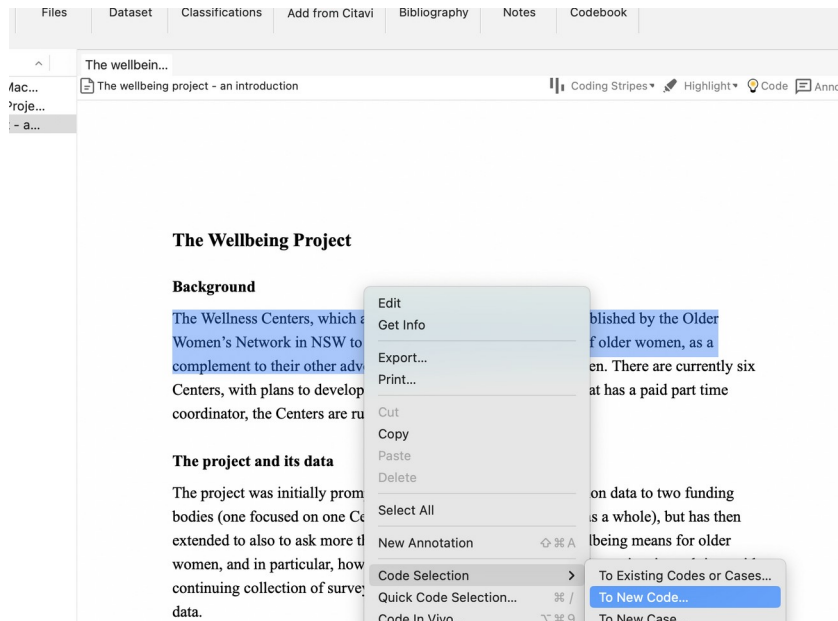
Creating Codes (Macs)

1. Go to “Create” in the toolbar
2. Click “Code”
3. Your new code will pop up and ask for a name and description
 - a. To add a *subcode*, follow the same steps, but click on the original code where you want to add the subcode



Coding Files/Documents (Macs)

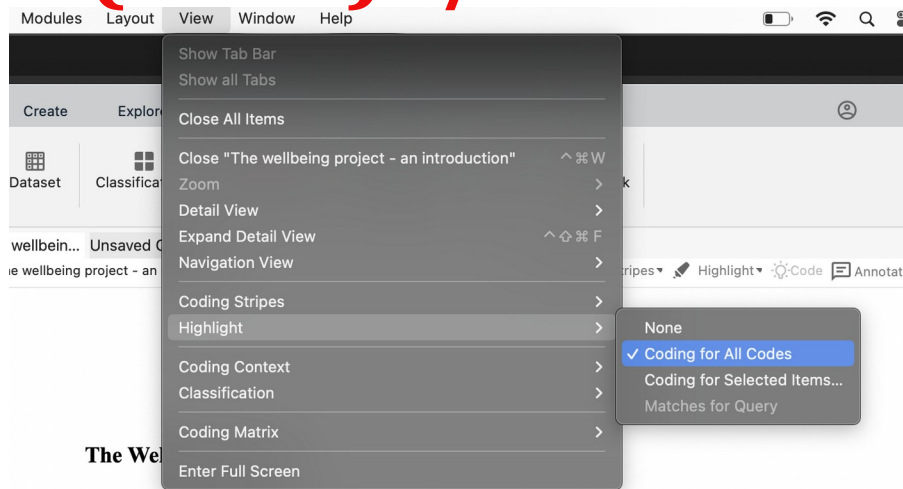
1. Open the file you would like to annotate.
2. Highlight the text you want to code.
3. Control-click and go to “Code Selection.”
4. Click “At Existing Codes or Cases”
 - a. Once you use codes, the codes will show up when you click “Code Selection.”
 - b. You can also add new codes/cases as you annotate.



View Your Codes (Macs) 1/2

1. Go to “View” in the toolbar
2. Click “Highlight” then “Coding for All Codes”

Your document you are coding and annotation (yellow = codes, blue = annotations)



Background

The Wellness Centers, which are the focus of this study, were established by the Older Women's Network in NSW to enhance the health and wellbeing of older women, as a complement to their other advocacy work on behalf of older women. There are currently six Centers, with plans to develop more. With the exception of one that has a paid part time coordinator, the Centers are run by volunteers.

The project and its data

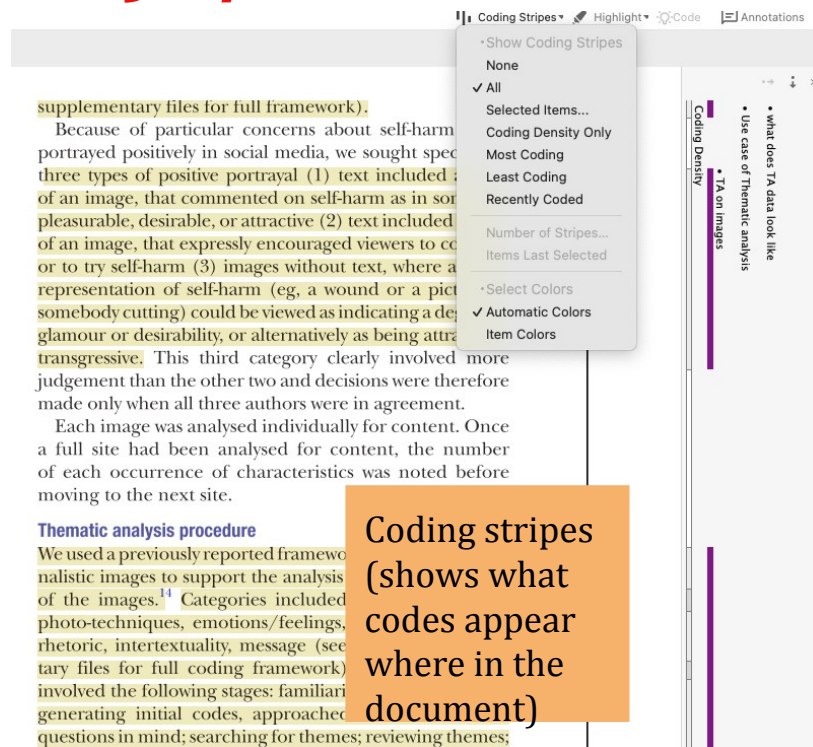
The project was initially prompted by the need to provide evaluation data to two funding bodies (one focused on one Center, the other on the organization as a whole), but has then extended to also to ask more theoretical questions about what wellbeing means for older women, and in particular, how wellbeing intersects with health. The project is evolving, with continuing collection of survey data, and occasionally additional collections of interview data.

ns at any point
during the presentation!

View Your Codes (Macs)2/2

Click “Coding Stripes” and “All Coding” to see the code names and where they appear in the document.

- If you have tagged an entire file as a “case,” everything will be highlighted. Choose “Coding for Selected Items” to select the codes you’d like to view.

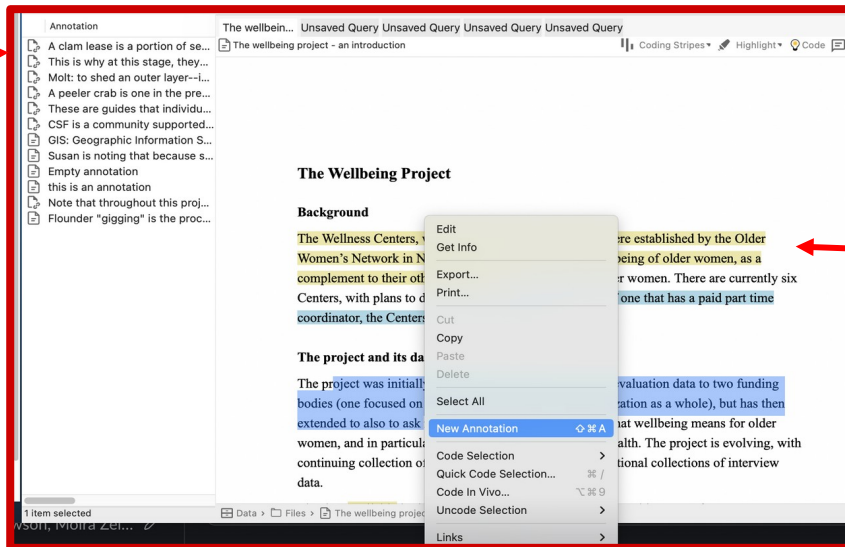


Coding stripes
(shows what
codes appear
where in the
document)

Annotating Files (Macs)

To annotate (comment), follow the same steps as coding except instead click “New Annotation” after you highlight and control-click to reach the pop-up shortcut menu. Find all your annotations in the “Notes/Annotations” section in the left menu.

List of
annotations



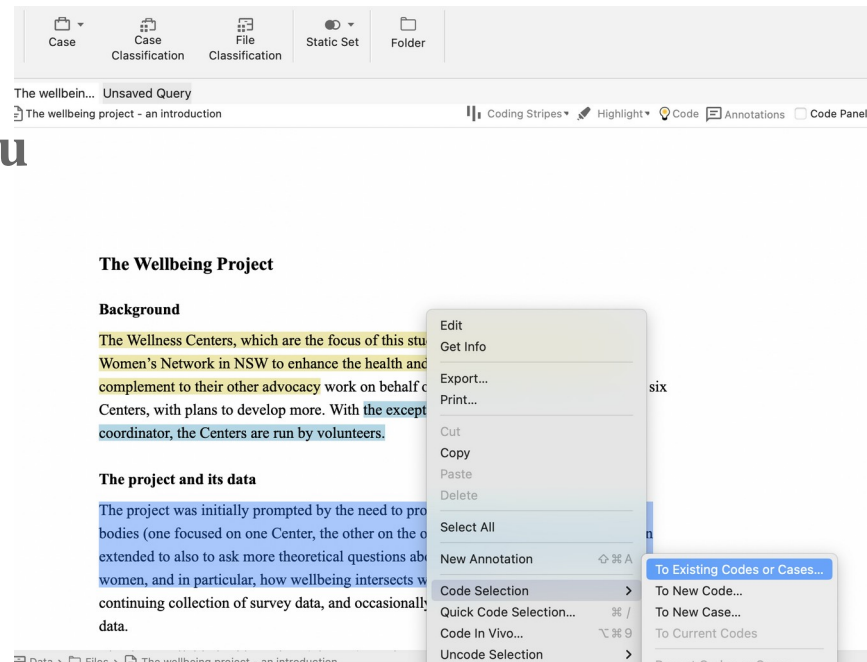
The text from the
document you
highlighted and
are annotating

Cases (Macs)

Cases are the types of research texts in your project and can be organized based on the user's choice. **“They might represent people, places, events, organizations or other entities that you want to analyze and compare.”** For example, if you have several transcripts from different trials, but want to categorize the type of trial for each text, you would use cases to do so.

“About Cases”, NVivo

To add a “case” to a file, it’s the same method as adding a code, except you choose the “Cases” folder and the proper case.



Word Frequency Example (Mac)

Click the word frequency tab, then select the items you would like to query in the “Selected Items” tab and then click “Run Query.”

thematic anal... Naeem et al... TA on images Shanahan et... Unsaved Query

Unsaved Query

Word Frequency Criteria

Search in: Files and Externals **Selected Items** Items in Selected Folders

Finding matches: ☒ Exact match only (e.g. "talk") ☐ Include stemmed words (e.g. "talking") Display words: ☐ All ☒ 1000 most frequent

With minimum length: 3

Query results exclude project stop words. Add or remove stop words in project properties.

Summary Word Cloud

Word	Length	Count	Weighted Percentage
analysis	8	239	1.71%
data	4	205	1.47%
research	8	192	1.37%
model	5	139	0.99%
qualitative	11	125	0.89%
thematic	8	121	0.87%
themes	6	102	0.73%
codes	5	87	0.62%
keywords	8	83	0.59%
story	5	78	0.56%

Crosstab Example (Mac)

Hit Explore,
Queries, then
Crosstab, and
Select the codes
you would like to
cross reference
with the cases or
attributes, then
click “Run Query.”

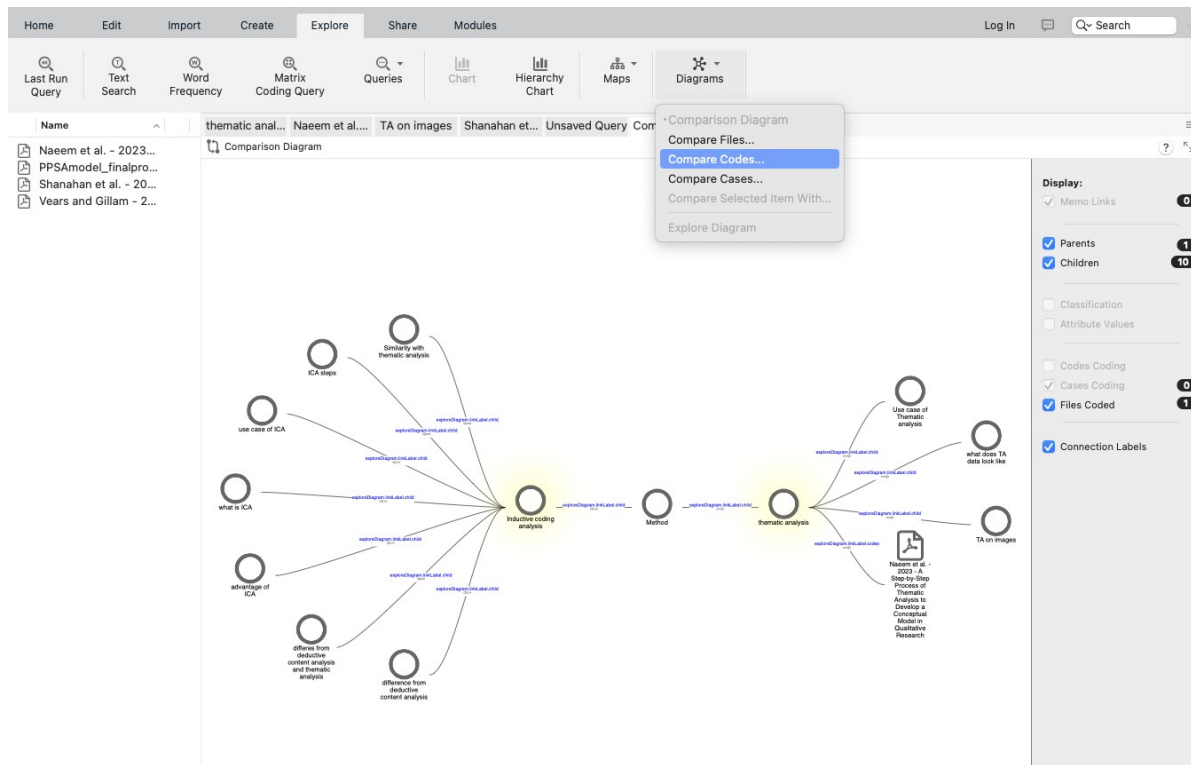
The screenshot shows the software interface with the following components:

- Top Menu:** Home, Edit, Import, Create, Explore, Share, Modules.
- Toolbar:** Last Run Query, Text Search, Word Frequency, Matrix Coding Query, Queries, Chart, Hierarchy Chart, Maps, Diagrams.
- Left Panel (Queries):** A list of queries including "Attitudes towards develop...", "Attitudes towards environ...", "Coding comparison by ch...", "Coding comparison by pa...", "Coding comparison by se...", "Comments on water quali...", "Crosstab of economic iss...", "Negative opinions about r...", "Negative Tweets", "Policy text query", "Under 40 comments on fi...", "Views on local economy...", "Word Frequency Query b...", "Word Frequency Query b...", "Word Frequency Query in...".
- Center Panel (Crosstab Results):** A table showing the results of a Crosstab query. The table has columns for "Gender = Female (n=3)", "Gender = Male (n=2)", "Gender = Female (n=9)", "Gender = Male (n=12)", and "Gender = Female (n=1)". The rows represent different codes: "Agriculture", "Fishing or aquaculture", "Jobs and cost of living", and "Tourism". The table also includes a "Total (Unique)" row.
- Right Panel (Query Setup):** A panel titled "Query" with a "Run Query" button and a "Save" button. Below the buttons is a section titled "Codes" with a list of codes: "Agriculture", "Fishing or aquaculture", "Jobs and cost of living", and "Tourism". Each code has a plus sign next to it.
- Bottom Panel (Show code against):** A panel titled "Show code against" with a tab for "Attributes" and a tab for "Cases". Below the tabs is a section titled "Attributes" with a list of attributes: "Classification", "Person", "Age Group", and "Gender". Each attribute has a plus sign next to it.

Annotations on the screenshot:

- Selected codes (click the plus sign):** Points to the plus signs next to the codes in the "Codes" section of the right panel.
- Your results:** Points to the center panel showing the Crosstab results table.
- Selected cases (click the plus sign):** Points to the plus signs next to the attributes in the "Show code against" section of the bottom panel.
- Selected codes:** Points to the "Crosstab of economic iss..." query in the left panel.

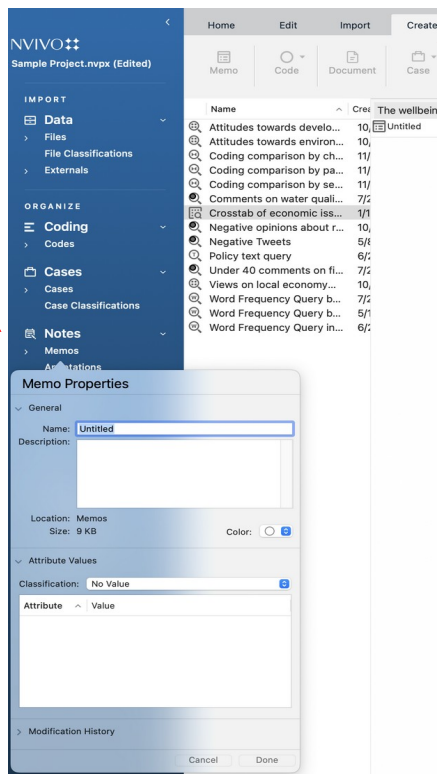
Exploring Codes (Macs)



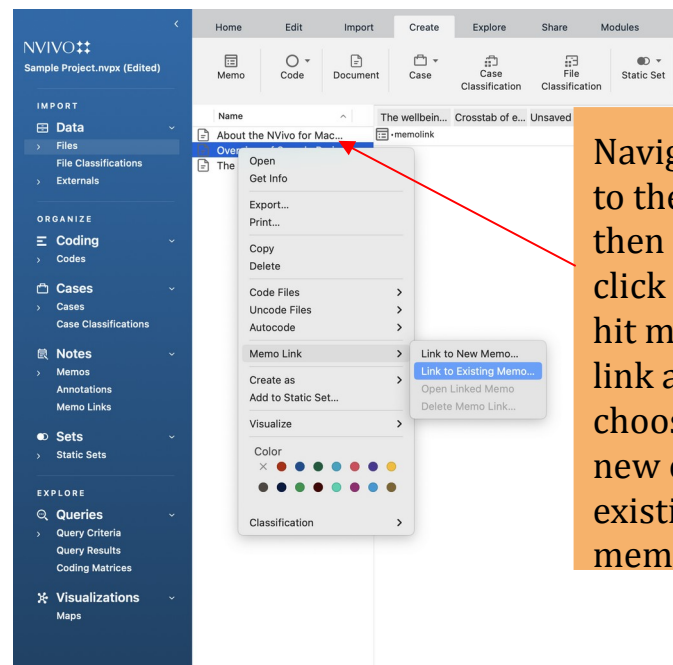
Comparison
diagram
example

Memos and Memo Links (Macs)

Menu where memos are located



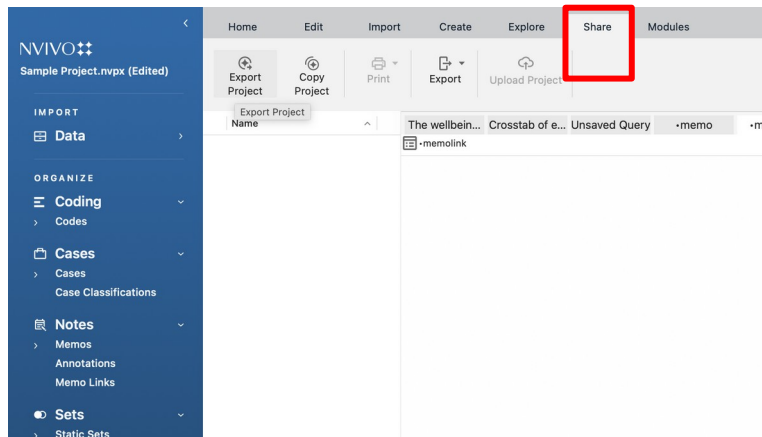
Navigating memo creation (hit create, then memo)



Navigate to the file, then right click and hit memo link and choose a new or existing memo

Exporting Your Project

Since there is a cross-platform problem, **save and export your projects as .qdp files** when submitting assignments so they can be opened on both Macs and Windows!



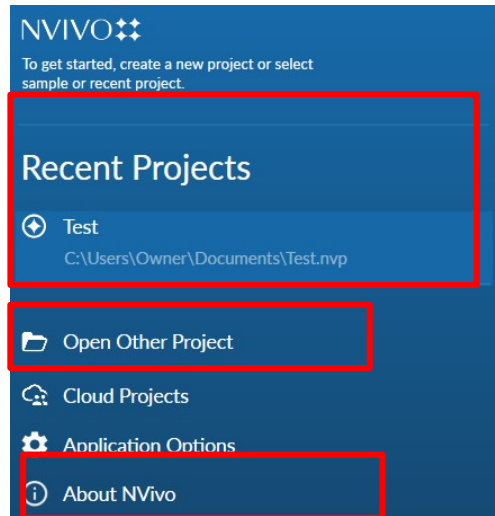
Anatomy of Nvivo: Windows

Anatomy of NVivo: Opening on Windows

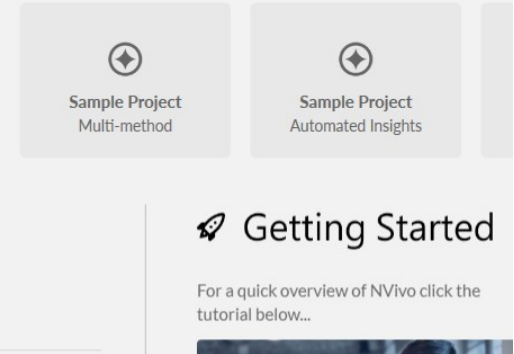
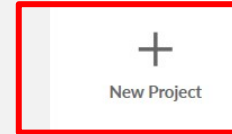
The recent projects you opened

Open another project that is not recent

Your version number (you should have version **12** or **14**)

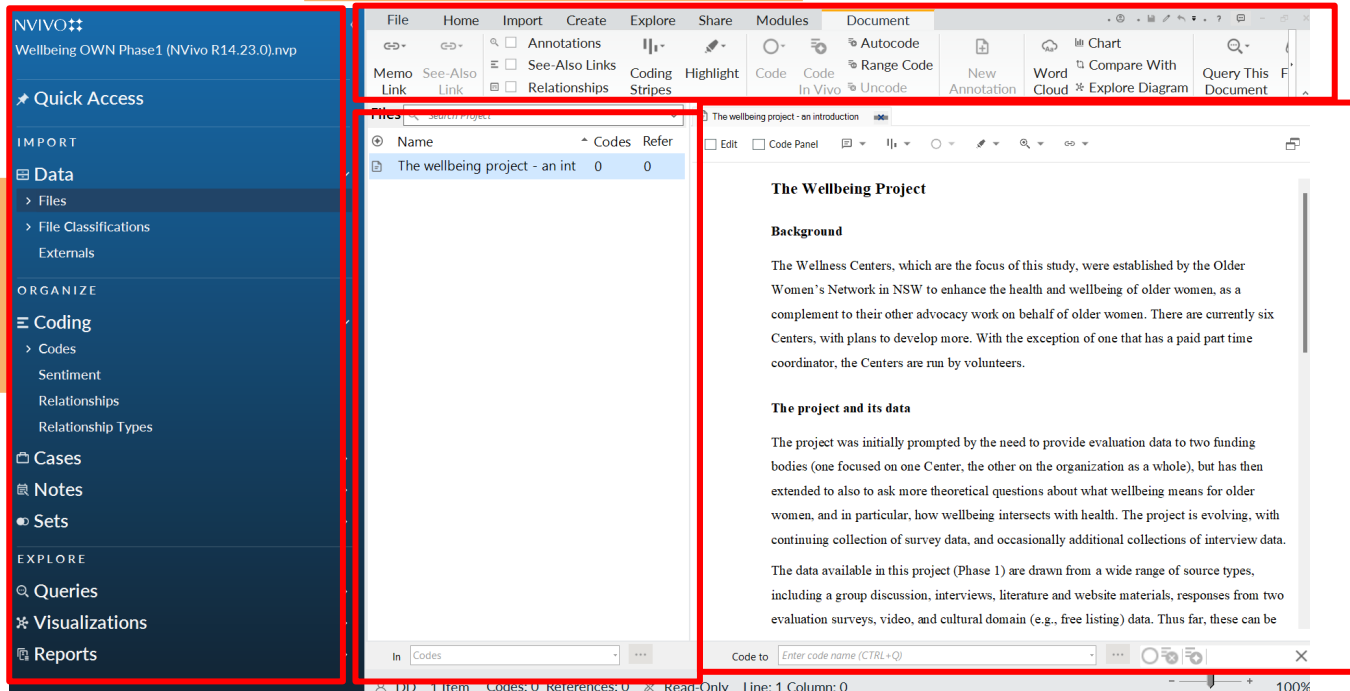


Create a new **project** (stores all your documents, codes, etc)



Anatomy of NVivo: Projects on Windows

Toolbar to access functions

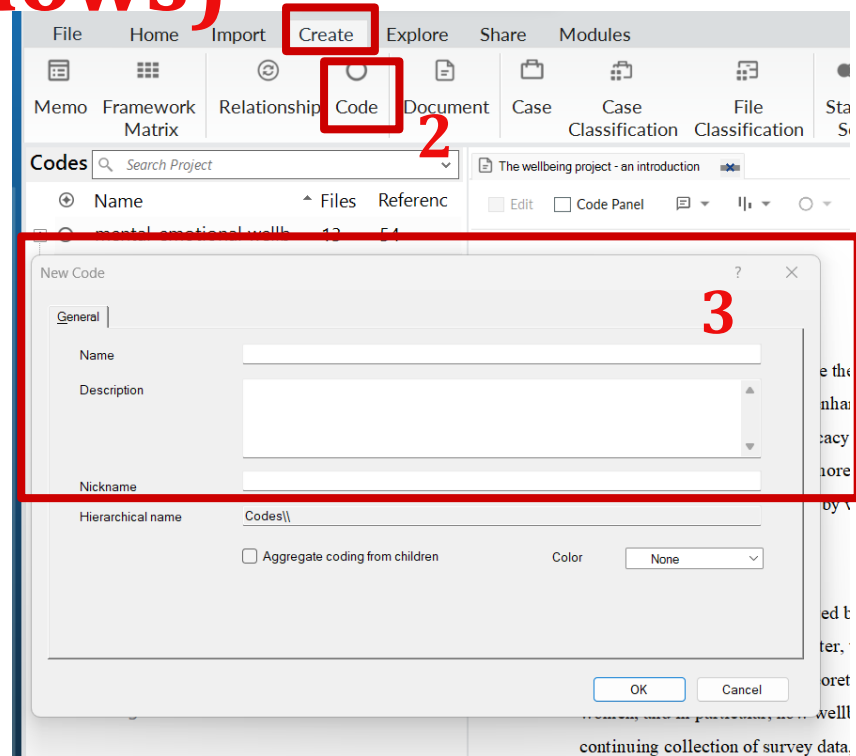


The window that will open the files, queries, etc. You can annotate documents here.

List of codes, files, etc.

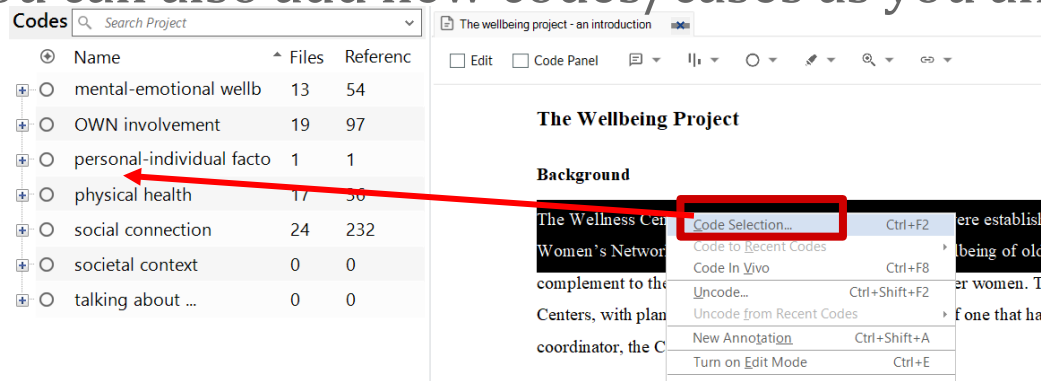
Creating Codes (Windows) ¹

1. Go to “Create” in the toolbar
2. Click “Code”
3. Your new code will pop up and ask for a name and description
 - a. To add a *subcode*, follow the same steps, but click on the original code where you want to add the subcode



Coding Files/Documents (Windows)

1. Open the file you would like to annotate.
2. Highlight the text you want to code.
3. Drag and drop the selection onto a code.
4. Alternatively, you can right-click and select “Code.”
5. You can also add new codes/cases as you annotate.



Steps to View Your Codes (Windows)

1. Go to “Document” in the toolbar
2. Click “Highlight” then “All Coding”
3. Click “Coding Stripes” and “All Coding” to see the code names and where they appear in the document.
 - a. If you have tagged an entire file as a “case,” everything will be highlighted. Choose “Coding for Selected Items” to select which codes you’d like to view.

View Your Codes (Windows)

The screenshot displays the NVivo software interface. The 'Code' window is open, showing a document with text and annotations. The 'Coding Stripes' menu is open, showing options for 'Show Coding Stripes' and 'All'. The 'All' option is selected. The 'Coding Stripes' menu is also open, showing options for 'Show Coding Stripes' and 'All'. The 'All' option is selected. The 'Coding Stripes' menu is also open, showing options for 'Show Coding Stripes' and 'All'. The 'All' option is selected.

1

2

3

Coding stripes (shows what codes appear where in the doc)

The document you are coding and annotations

Annotating Files (Windows)

To annotate (comment), follow the same steps as coding except instead click “New Annotation” after you highlight and right click. Find all your annotations in the “Notes/Annotations” section in the left menu.

The screenshot shows the software interface with several key components highlighted by red boxes and orange callout boxes:

- Annotations List:** A table listing annotations with columns 'File Name' and 'Number'.

File Name	Number
Acacia L	1
Melaleuca 2017 survey	1
Melaleuca 2017 survey	2
Stathi et al AVONet-repor	1
Waratah G - Pre	1
Ward et al Well Being in	1
- Notes Menu:** The 'Notes' section in the left sidebar, with 'Annotations' highlighted.
- Annotation Content:** A text box showing the content of an annotation, including a quote and a response.
- Annotations Table:** A table at the bottom showing the 'Item' and 'Content' of an annotation.

Orange callout boxes provide additional context:

- List of annotations:** Points to the 'Annotations' list table.
- Where you can find all your annotations listed:** Points to the 'Notes' menu.
- Your annotation:** Points to the 'Annotations' table at the bottom.

The text from the document you highlighted and are annotating

Your annotation

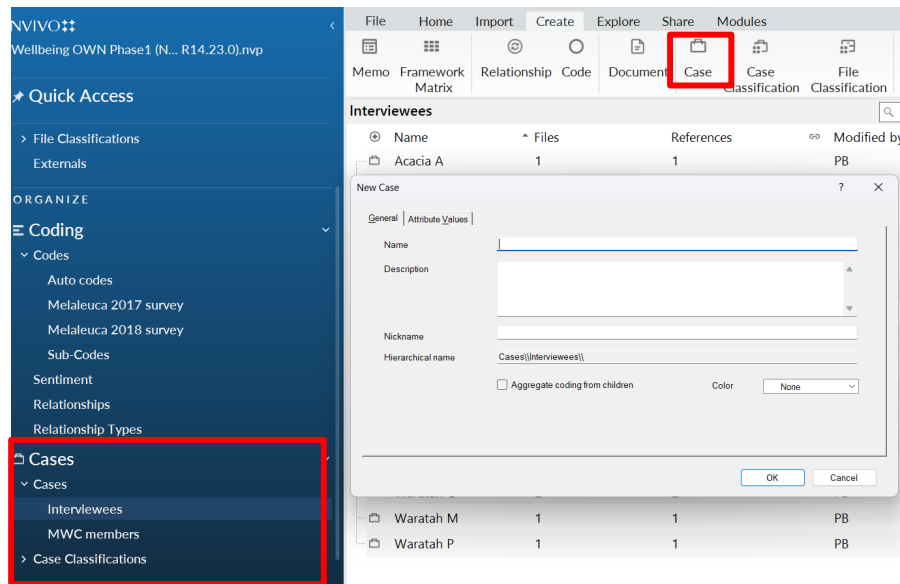
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Cases (Windows)

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[“About Cases”, NVivo](#)

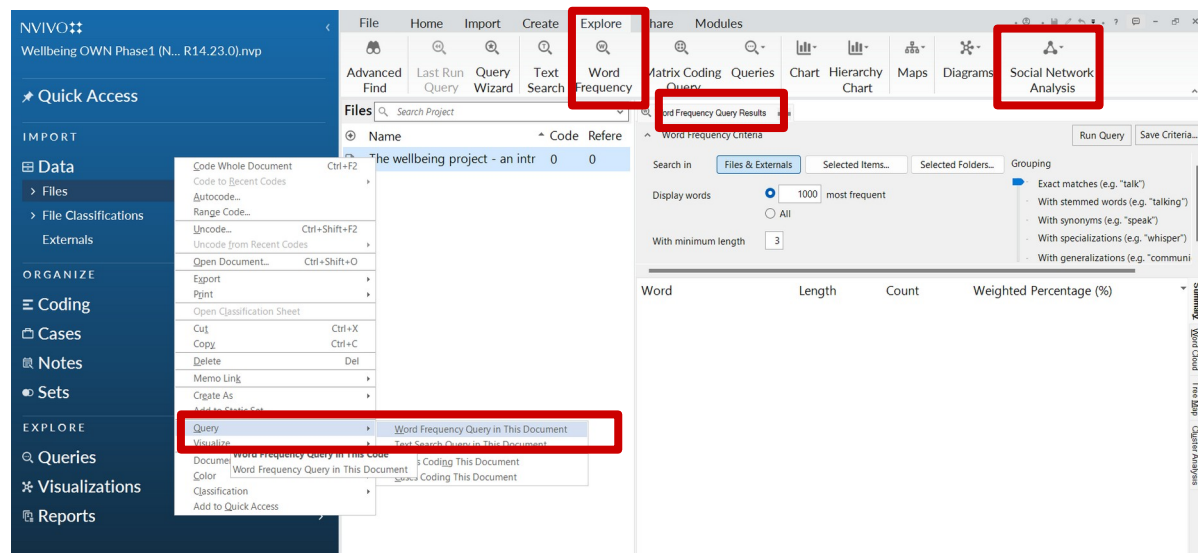
To add a “case” to a file, it’s the same method as adding a code, except you choose the “Cases” folder and the proper case.



Feel free to ask questions at any point during the presentation!

Word Frequency Example (Windows)

- ? “Query” can be found in the “Explore” Tab
- ? Alternatively, you can right click on a file and select Query
- ? To query multiple items, select the items you would like to query in the “Selected Items” tab and then click “Run Query”



Crosstab Example (Windows)

Select the codes you would like to cross reference with the cases or attributes, then click “Run Query.”

Selected codes (click the plus sign)

Selected cases (click the plus sign)

	mental-emotional wellbeing	Total
Acacia A	2	2
Acacia B	0	0
Acacia L	1	1
Acacia V	0	0
Correa C	2	2
Correa P	0	0
Total	5	5

Your results

Exploring Codes (Windows)

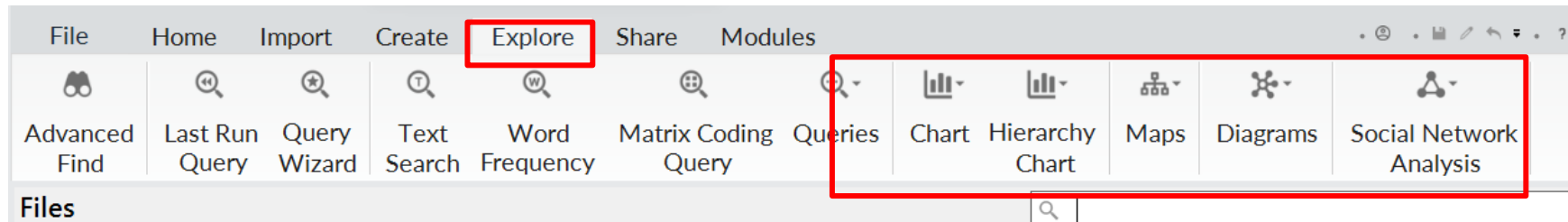
Chart: bar chart of the number of times codes were used in a file

Hierarchy chart: visualizes number of codes used in a file

Explore Diagram: explore the codes used in a file

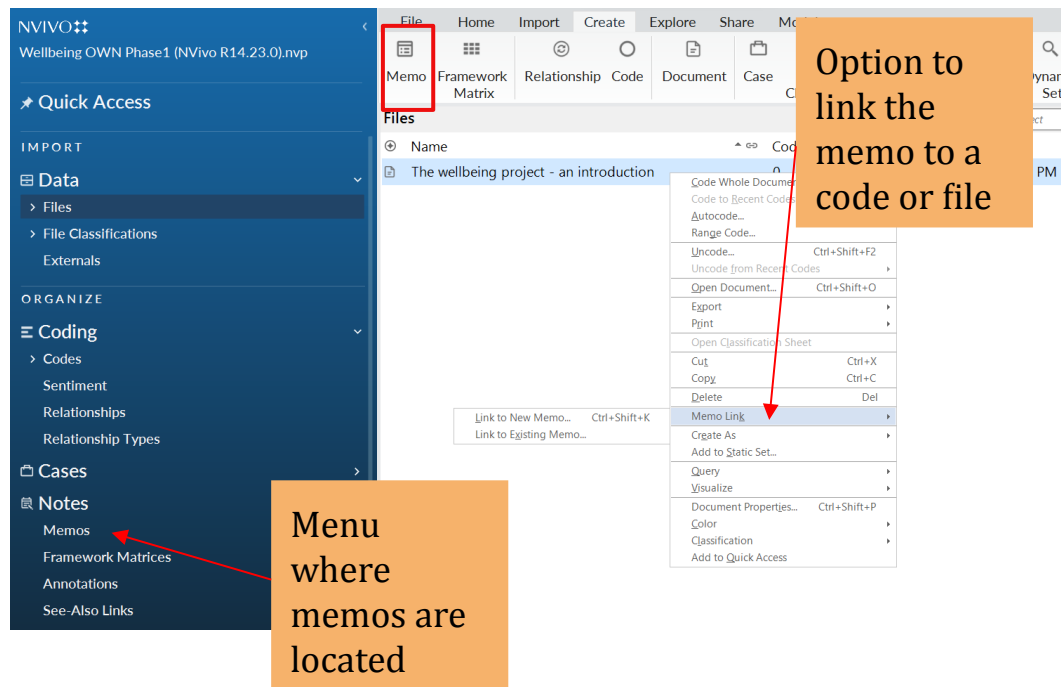
Comparison Diagram: compare the codes used in multiple files

Social Network Analysis: visualize relationships within networks



Memos (Windows)

- ? Memos are more extended write-ups of your analytical insights
- ? They can stand alone, but also be linked
- ? “Memo link”: linking memo to a particular file, case, or code



Memo Links (Windows)

Showing the link between the file and the memo

The screenshot displays the NVIVO software interface. On the left, the 'Data' menu is open, showing 'Files' as a sub-option. A red arrow points from the 'Files' menu item to the 'Files' table in the main window. The 'Files' table has columns for 'Name', 'Codes', and 'Referen'. The first row is 'The wellbeing project' with '0' in the 'Codes' column and '0' in the 'Referen' column. A second red arrow points from the 'Codes' column to the 'Memo Link' menu option. The 'Memo Link' menu is open, showing options like 'Open Linked Memo' and 'Delete Memo Link'. A third red arrow points from the 'Open Linked Memo' option to the 'Accessing the memo from the file' text box.

Name	Codes	Referen
The wellbeing project	0	0

Code Whole Document Ctrl+F2
Code to Recent Codes
Autocode...
Range Code...
Unicode... Ctrl+Shift+F2
Unicode from Recent Codes
Open Document... Ctrl+Shift+O
Export
Print
Open Classification Sheet
Cut Ctrl+X
Copy Ctrl+C
Delete Del
Memo Link
Create As
Add to Static Set...
Query
Visualize
Document Properties... Ctrl+Shift+P
Color
Classification
Add to Quick Access

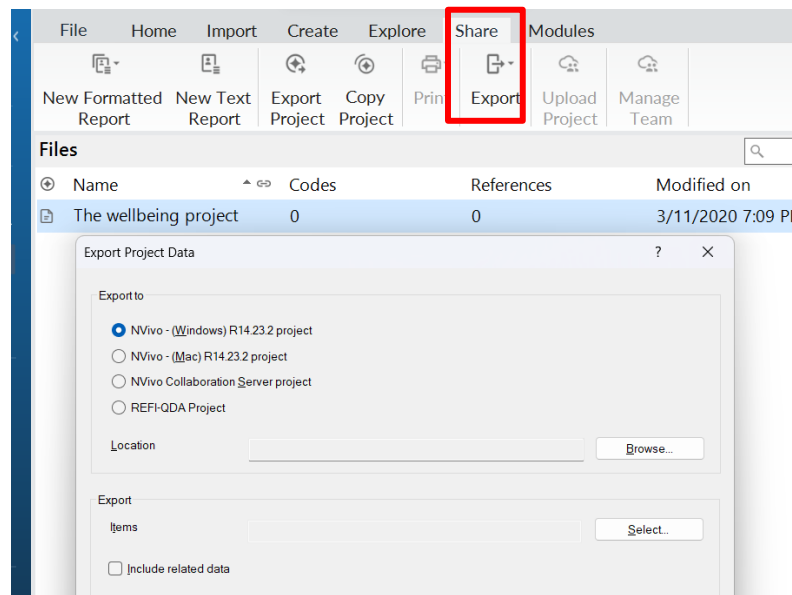
Open Linked Memo Ctrl+Shift+M
Delete Memo Link

Accessing the memo from the file

Exporting Your Project (Windows)

Since there is a cross-platform problem, **save and export your projects as .qdpX files** when submitting assignments so they can be opened on both Macs and Windows!

1. On the Share tab, click Export Project.
2. Select REFI-QDA Project.



Further Learning & Practice

Qualitative Coding practice

Read [“Men and healthy eating” dataset](#) and [“Childfree”](#)

- ❑ Come up with three themes you might want to highlight from this text; these themes should be about 1-3 words (ex: “health impacts”)
- ❑ Underline the moments in the passage that reflect these themes.
- ❑ Try to recreate this schema in NVivo!

Ethical Considerations

[?] Contextual Privacy

- When we think about privacy online we want to think of it as contextual. What someone might be comfortable saying in one context might not be something they're okay saying to a researcher.

[?] Keeping People Safe

- It is risky to publicize the username, profile picture, or exact text of a social media post or profile.
- To show example posts etc, you can make up your own or heavily redact them.

What information would you be comfortable sharing?

Learning Resources

- ❓ [Handout: Installing NVivo](#)
- ❓ [Handout: NVivo](#)
- ❓ [Handout: Accessibility in Digital Content](#)
- ❓ [Handout: Copyright and Fair Use](#)
- ❓ [Handout: Data Privacy](#)
- ❓ [Handout: Data Ethics](#)

Thank you!

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- ☐ Slides and handouts available at: bit.ly/fa25-whynot-intp3970-nvivo
- ☐ For more information on DITI, please see: <https://bit.ly/diti-about>
- ☐ Schedule an appointment with us! <https://bit.ly/diti-meeting>
- ☐ If you have any questions, contact us at: nulab.info@gmail.com
- ☐ We'd love your feedback! Please fill out a short survey here: <https://bit.ly/diti-feedback>