

Introduction to NVivo: Qualitative Coding & Text Analysis

Digital Integration Teaching Initiative
Zhen Guo and Dipa Desai
Qualitative Data Analysis
Professor Silvia Dominguez, 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:

<https://bit.ly/fa25-dominguez-insh7102-multi>

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

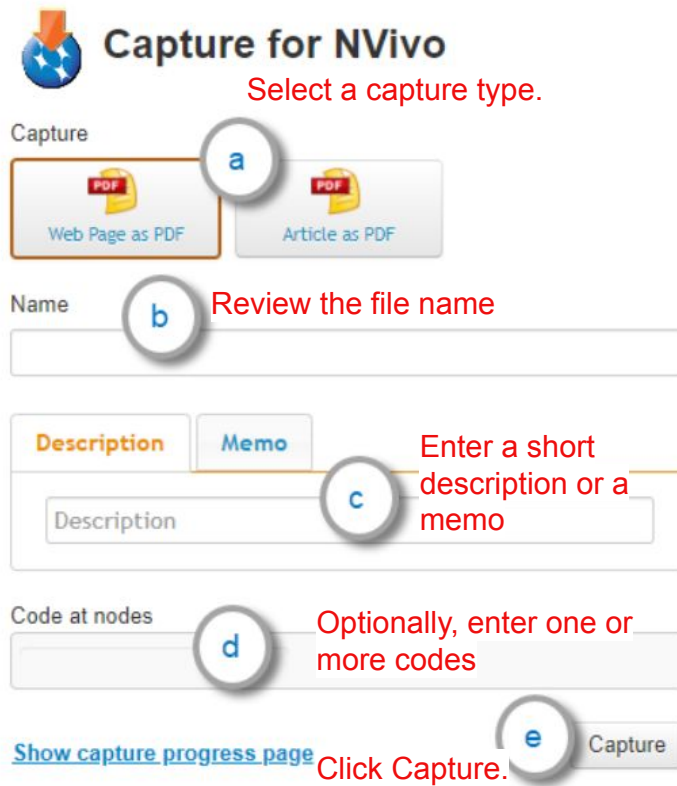
NVivo Vocabulary

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.



Capture for NVivo
Select a capture type.

Capture

a

Web Page as PDF Article as PDF

b Review the file name

Name

c Enter a short description or a memo

Description Memo

Description

d Optionally, enter one or more codes

Code at nodes

e Click Capture.

Show capture progress page Capture

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.

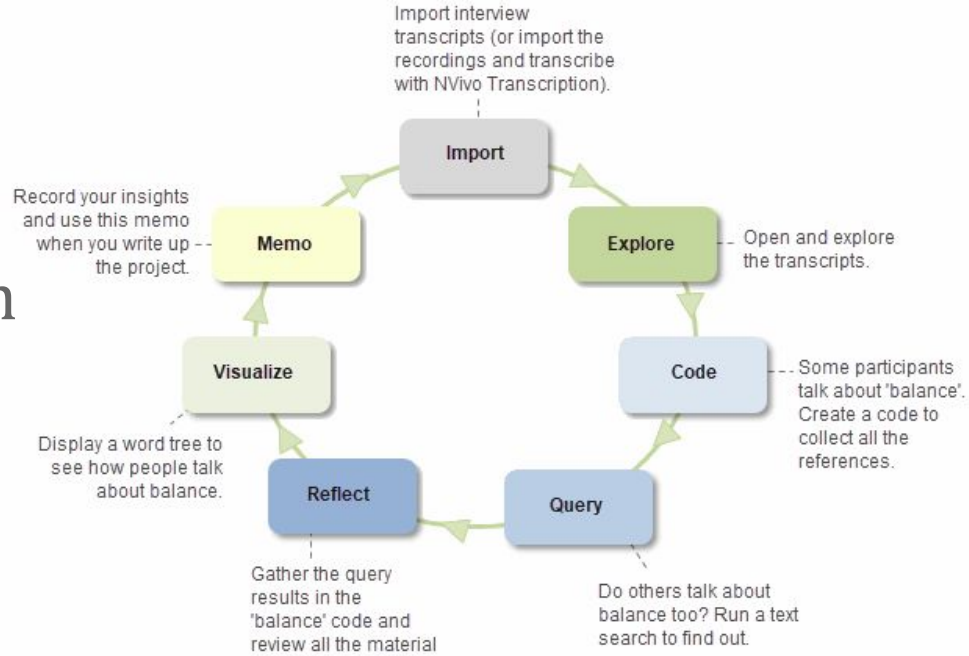
Coding & Organizing Literature Reviews

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.

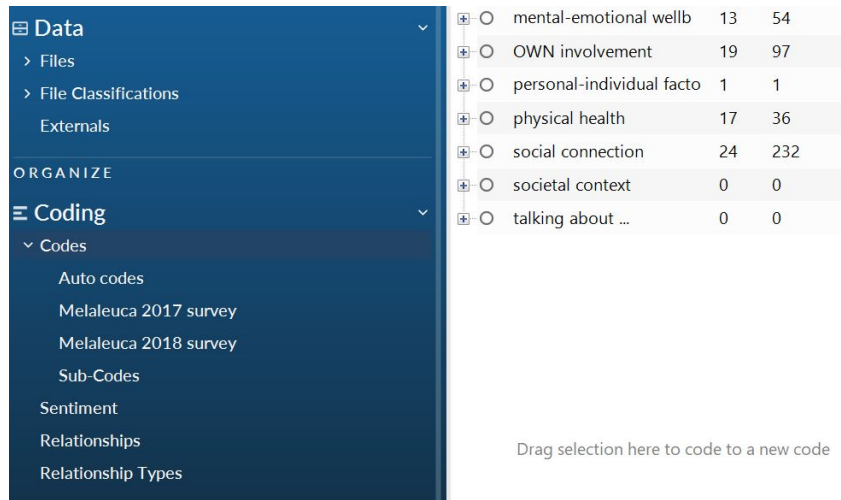


Source: Lumivero - Workflow Overview

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

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.



Code	Count	Sub-count
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

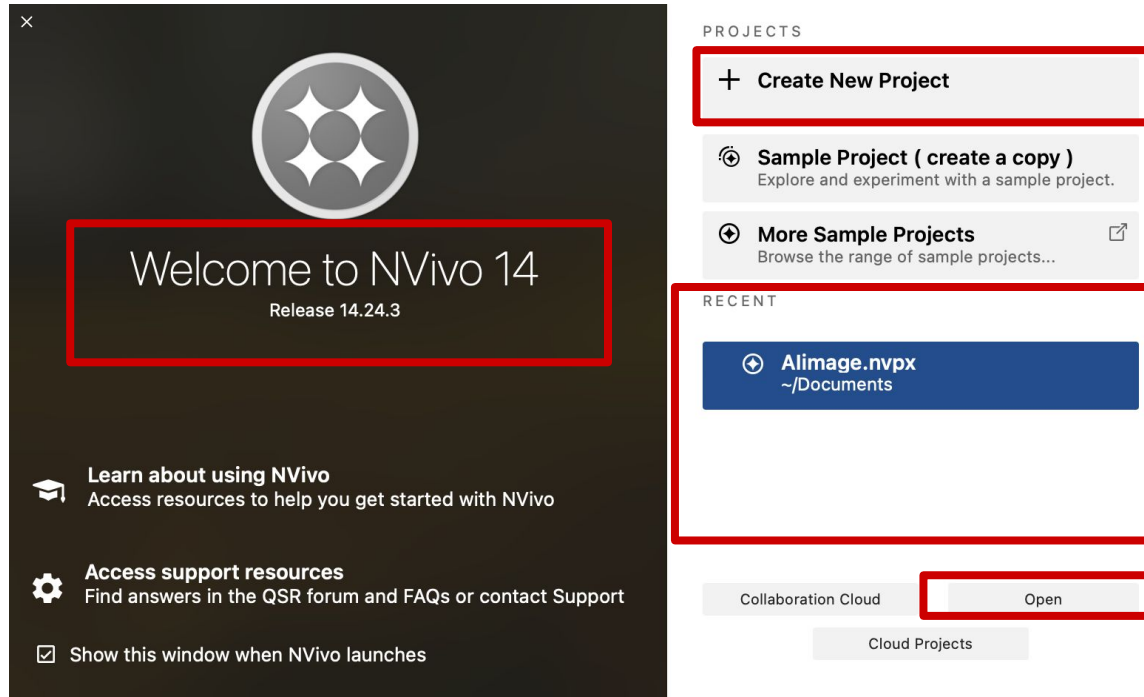
The Mac and PC versions of Nvivo—as well as the version numbers—are different and have different file types.

- 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

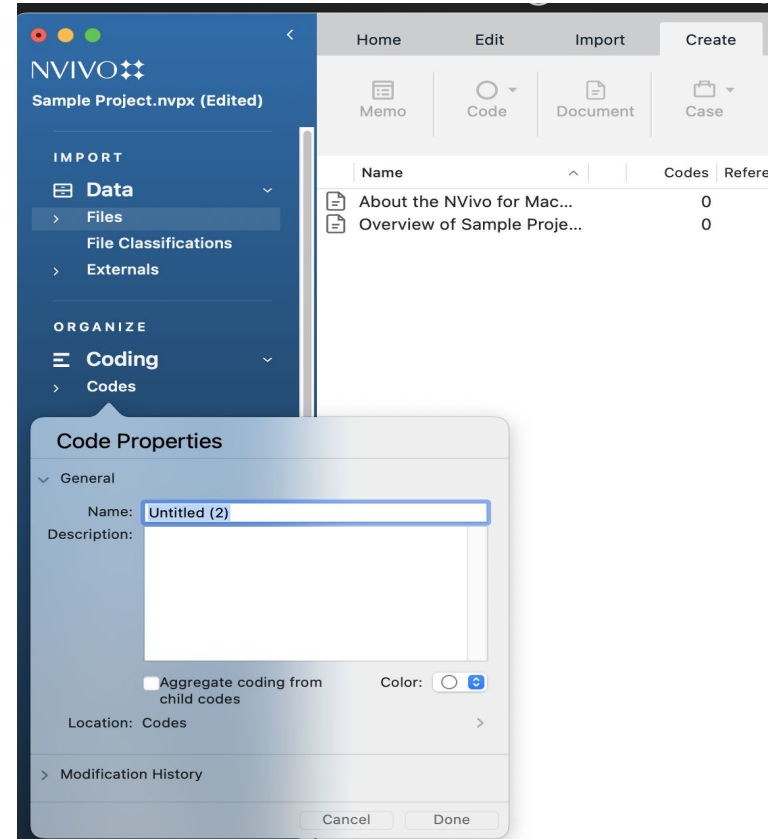
The window that will open the files, queries, etc. You can annotate documents here.

List of codes, files, etc.

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

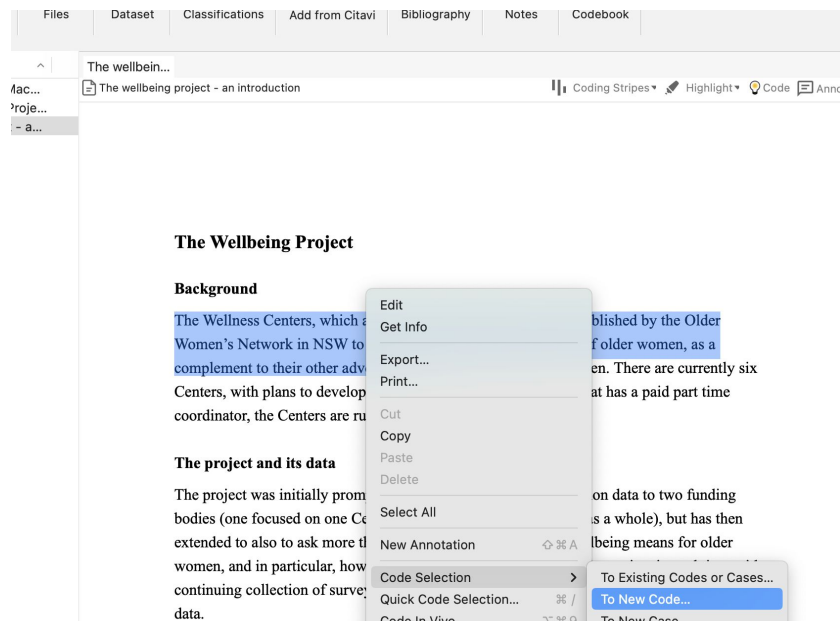
Creating Codes (Macs)

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



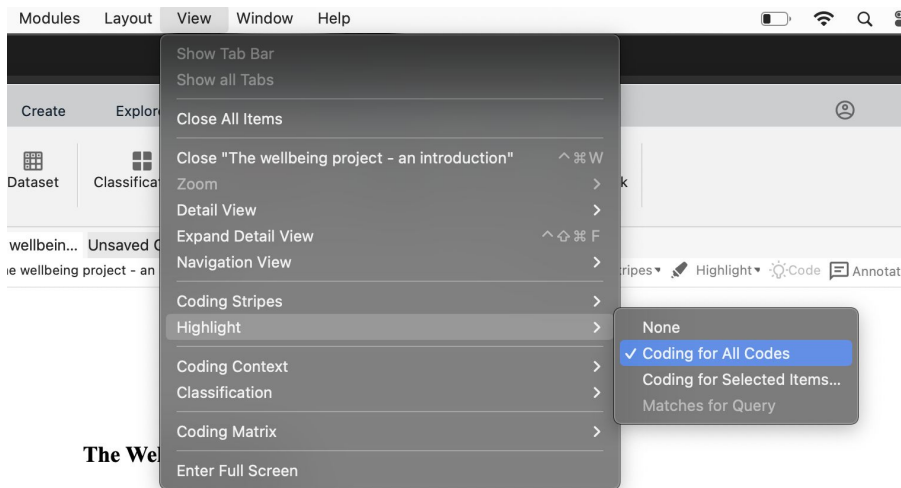
Coding Files/Documents (Macs)

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

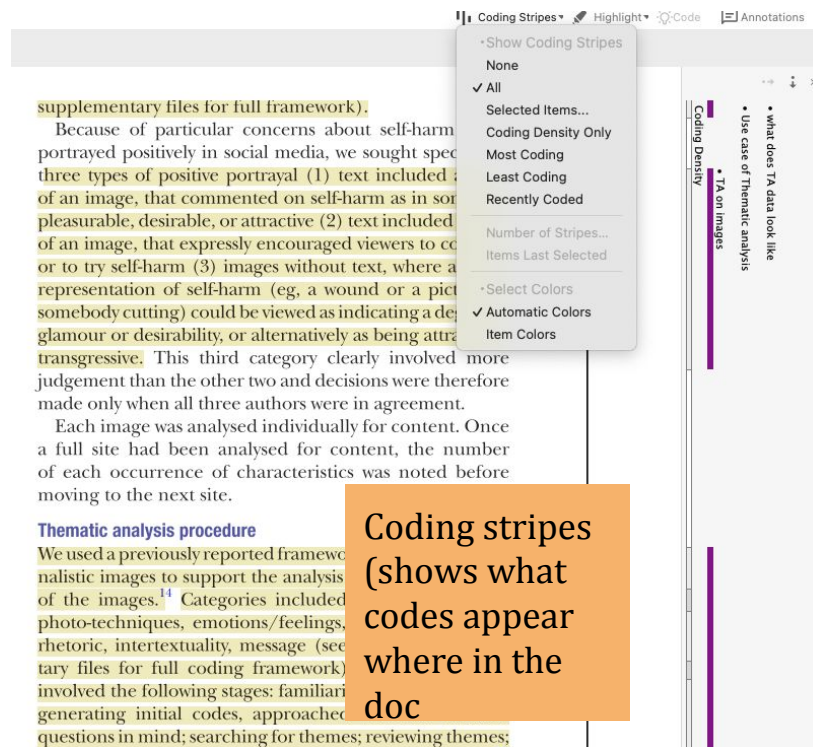
The project was initially prompted by the need to provide evaluation data to two funding bodies (one focused on one Center, the other on the organization as a whole), but has then extended to also to ask more theoretical questions about what wellbeing means for older women, and in particular, how wellbeing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

ns at any point
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.

- a. 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.

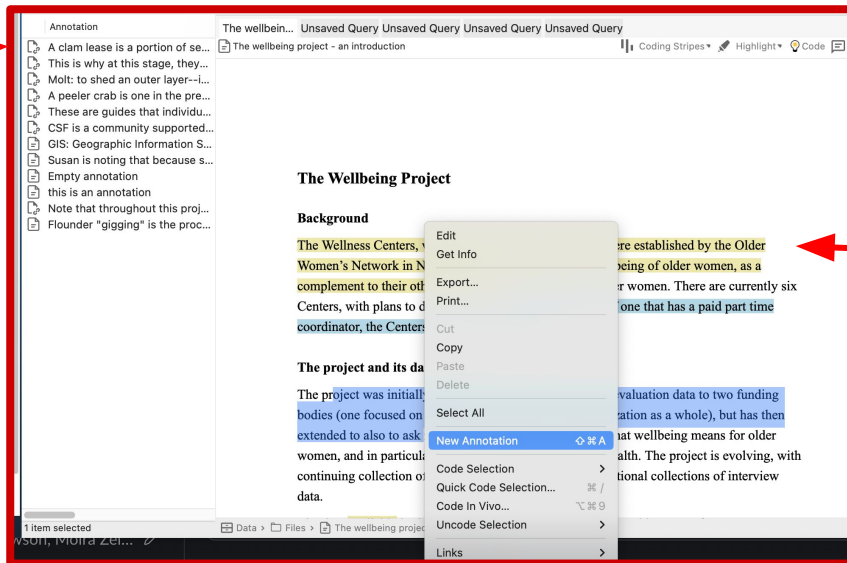


Coding stripes
(shows what
codes appear
where in the
doc

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



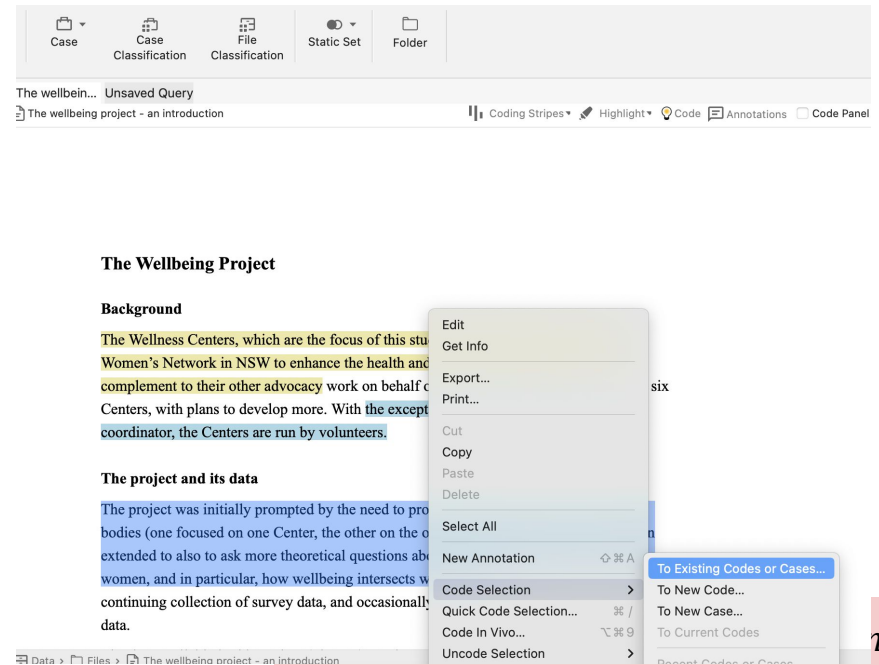
The text from the
document you
highlighted and
are annotating

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.



during the presentation!

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.”

The screenshot shows the software interface with the 'Word Frequency' tab selected. The 'Run Query' button is highlighted. The results table is as follows:

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:

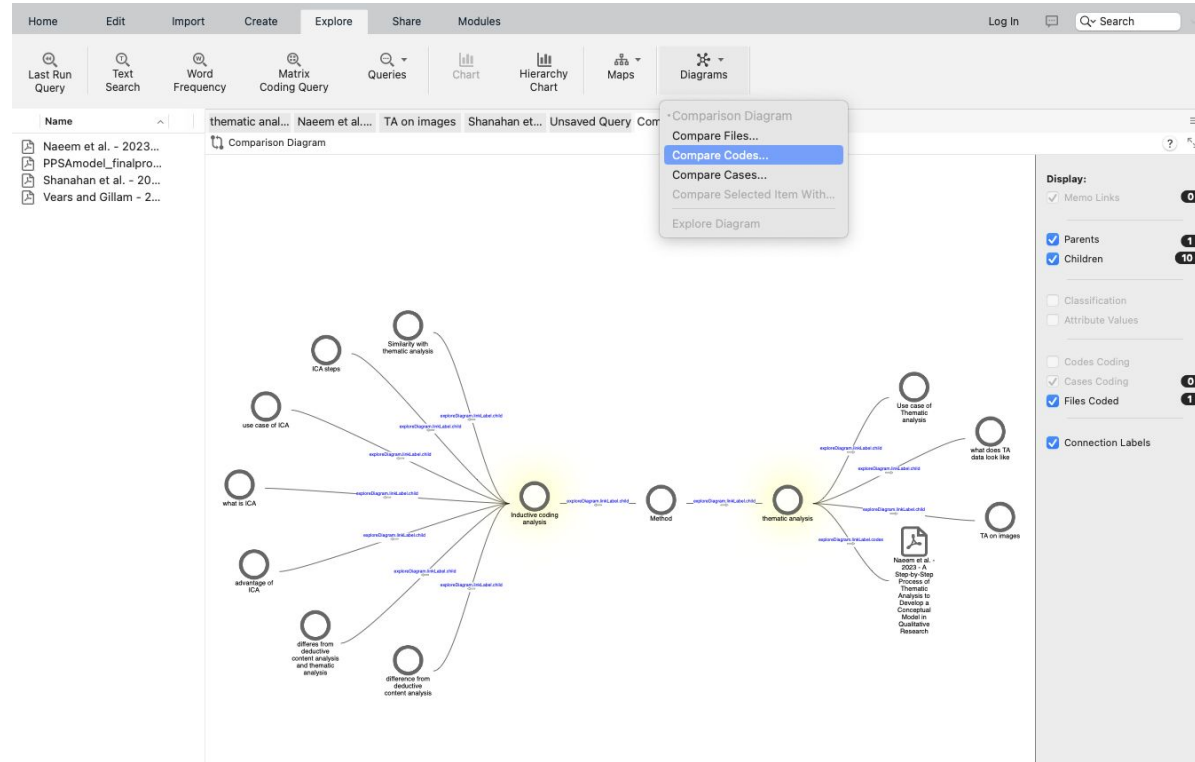
- Top Navigation Bar:** Home, Edit, Import, Create, Explore, Share, Modules. Log In and Search icons are on the right.
- Left Sidebar:** A list of queries including "Attitudes towards develop...", "Attitudes towards environ...", "Coding comparison by ch...", "Coding comparison by se...", "Comments on 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...", and "Word Frequency Query b...".
- Central Panel:** Displays the "Crosstab" query results. 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 codes: "Agriculture", "Fishing or aquaculture", "Jobs and cost of living", and "Tourism".
- Right Panel:** A "Query" panel with a "Run Query" button and a "Codes" section. The "Codes" section lists "Agriculture", "Fishing or aquaculture", "Jobs and cost of living", and "Tourism" with radio buttons.
- Bottom Right Panel:** A "Show code against" panel with tabs for "Attributes" and "Cases". The "Attributes" tab is selected, showing "Person" and "Age Group" with dropdown arrows.

Annotations and Red Boxes:

- Red Box 1:** Encloses the "Crosstab..." option in the "Queries" dropdown menu.
- Red Box 2:** Encloses the "Codes" section in the "Query" panel.
- Red Box 3:** Encloses the "Show code against" panel.
- Orange Box 1:** "Selected codes (click the plus sign)" points to the "Codes" section.
- Orange Box 2:** "Your results" points to the central table.
- Orange Box 3:** "Selected cases (click the plus sign)" points to the "Show code against" panel.
- Orange Box 4:** "Selected codes" points to the "Codes" section.

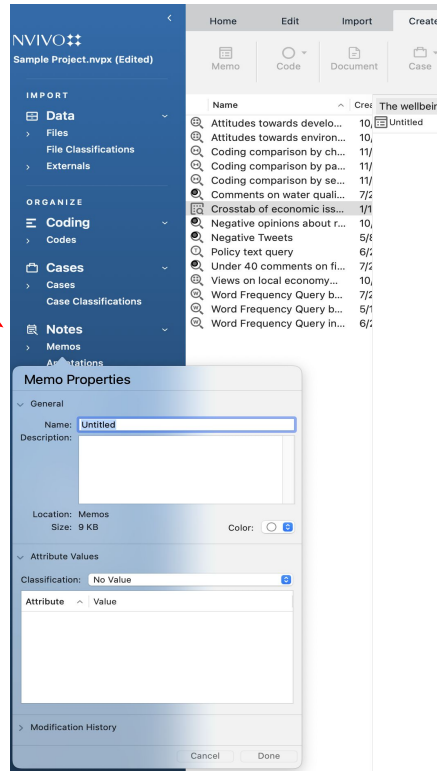
Exploring Codes (Macs)

Comparison
diagram
example

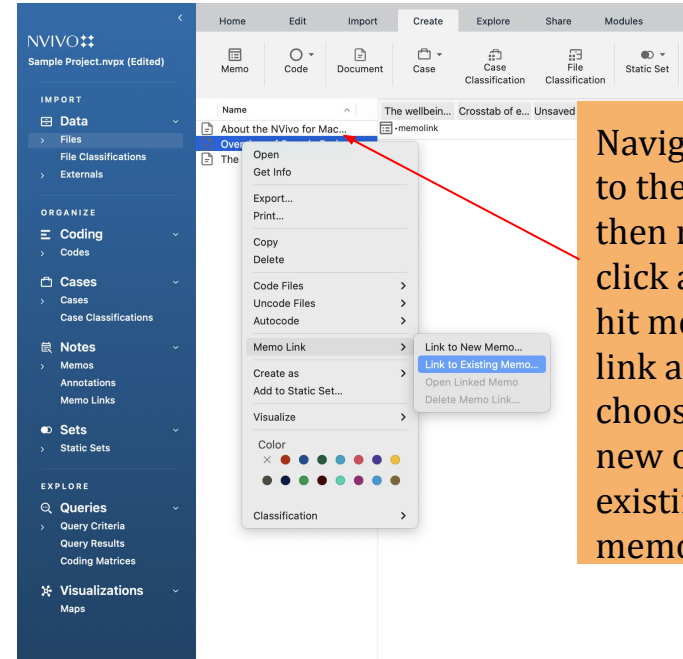


Memos and Memo Links (Macs)

Menu where memos are located



Navigating memo creation (hit create, then memo)

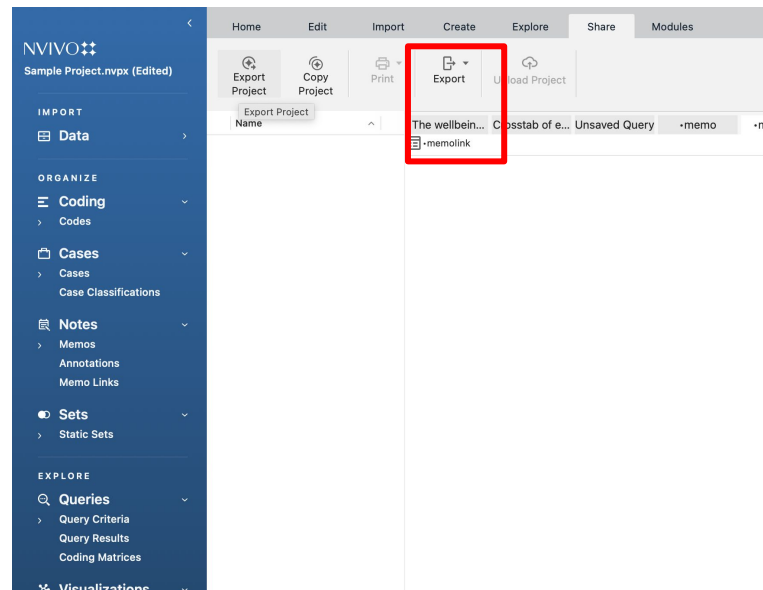


Navigate to the file, then right click and hit memo link and choose a new or existing memo

Exporting Your Project (Macs)

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.



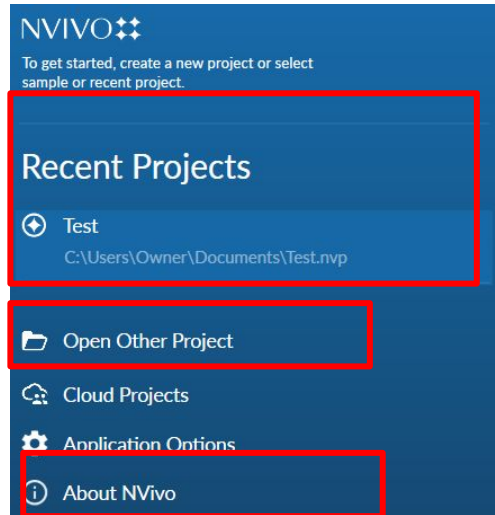
Anatomy of Nvivo: Windows

Anatomy of NVivo: Opening on Windows

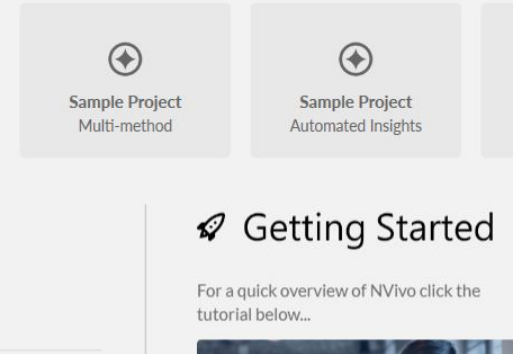
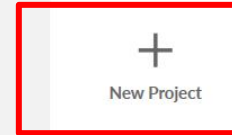
The recent projects you opened

Open another project that is not recent

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

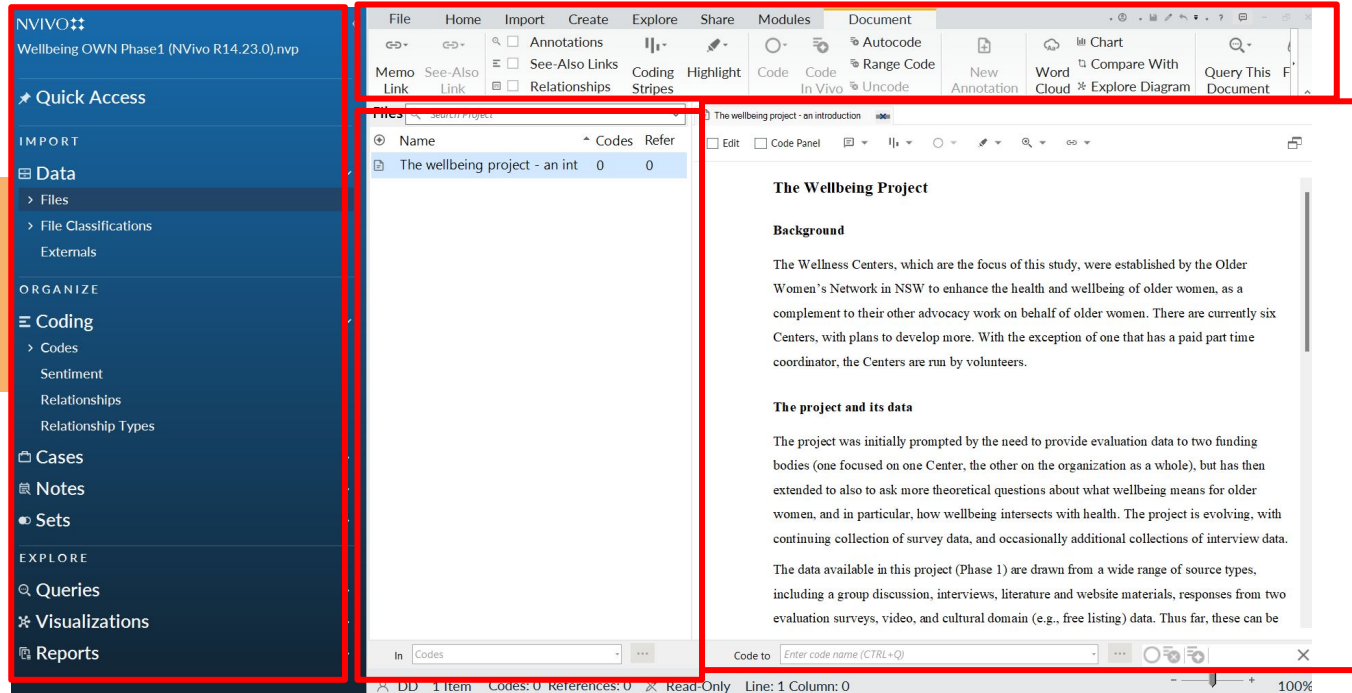


Create a new **project** (stores all your documents, codes, etc)



Anatomy of NVivo: Projects on Windows

Toolbar to access functions

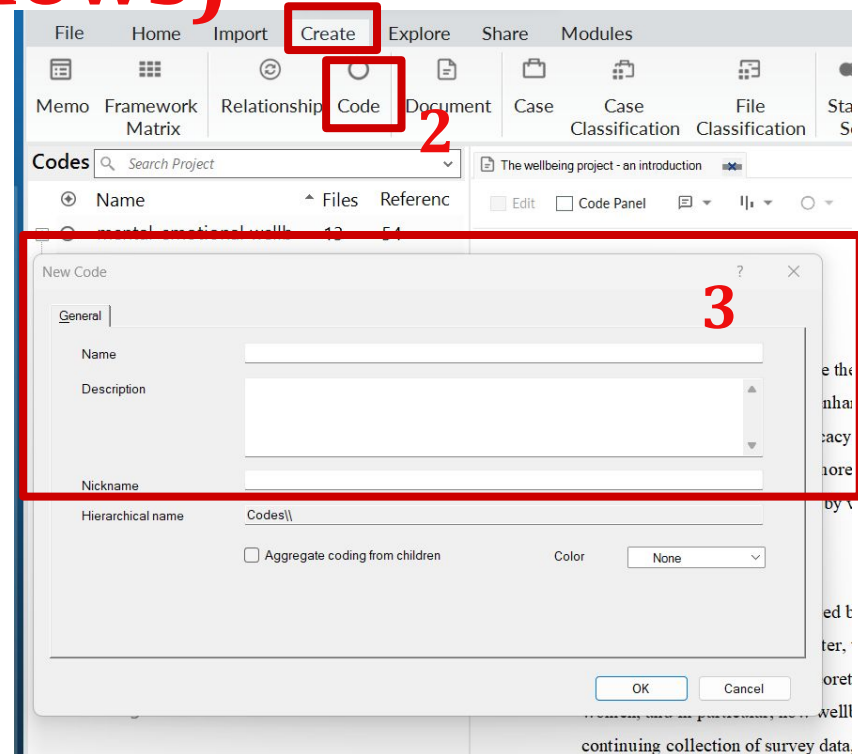


The window that will open the files, queries, etc. You can annotate documents here.

List of codes, files, etc.

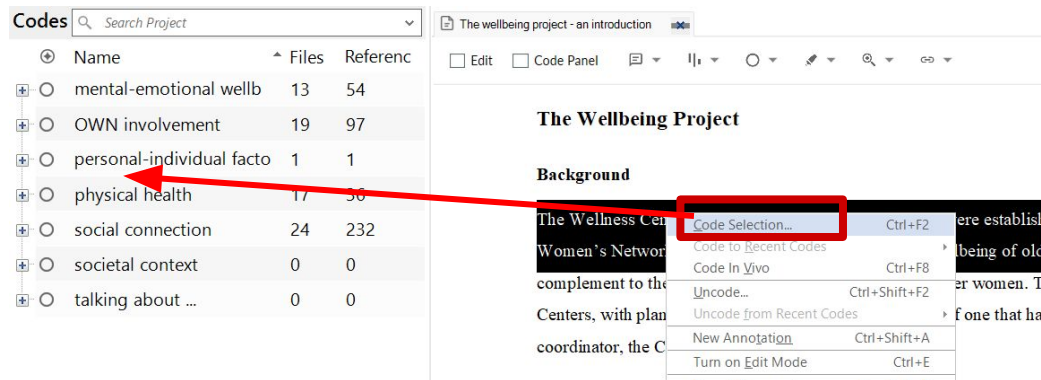
Creating Codes (Windows) ¹

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)

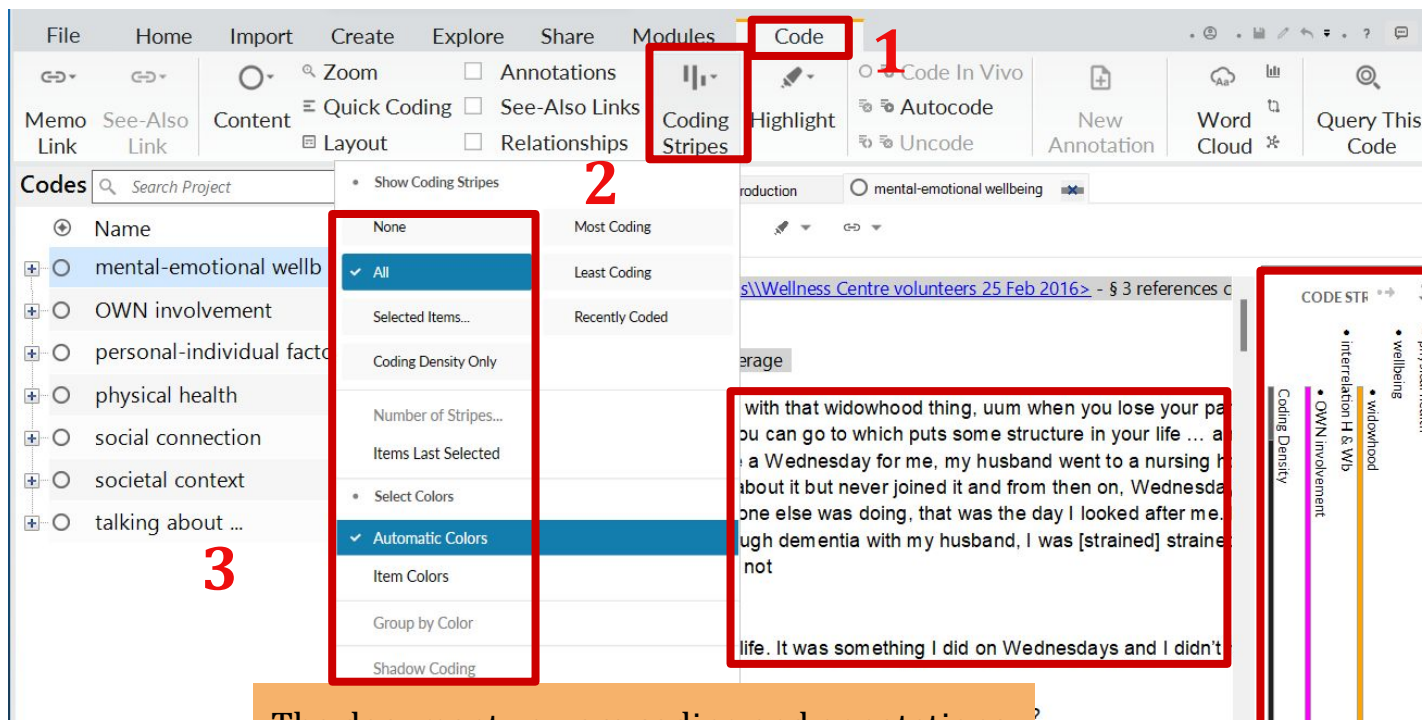
1. Open the file you would like to annotate.
2. Highlight the text you want to code.
3. Drag and drop the selection onto a code.
4. Alternatively, you can right-click and select “Code.”
5. You can also add new codes/cases as you annotate.



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.
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View Your Codes (Windows)



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 in the center-left pane lists annotations. It has columns for 'File Name' and 'Number'. The list includes:

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
- Annotations Menu:** In the left sidebar, under 'Notes', the 'Annotations' option is highlighted.
- Document Annotation:** In the main document window, a paragraph of text is highlighted, and a comment box is open with the text: 'L: Particular experience – there’s so many capable women in the community, in the society. They are all very, how do you put it, dedicated. Like this wellness in the committee, people are so dedicated, you know, moneywise as well timewise especially. We are all volunteers, so I really admire women, especially older women, for what they do.'
- Annotation Table:** At the bottom, a small table shows the annotation details:

Item	Content
1	This (and the next) paragraph are referring to the centre rather than the concept

Orange callout boxes provide additional context:

- 'List of annotations' points to the central Annotations list.
- 'Where you can find all your annotations listed' points to the 'Annotations' menu item in the sidebar.
- 'Your annotation' points to the comment box in the document.

The text from the document you highlighted and are annotating

Your annotation

Where you can find all your annotations listed

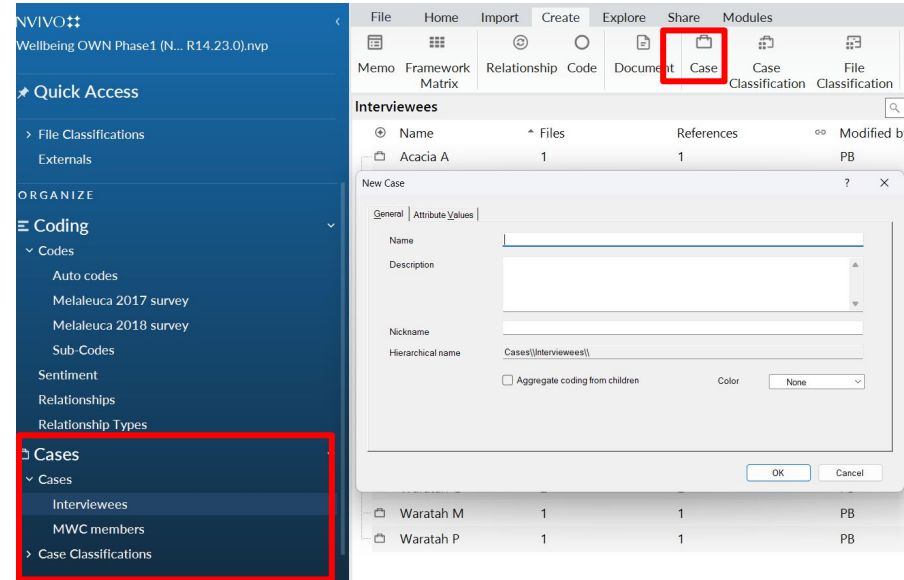
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Cases (Windows)

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[“About Cases”, NVivo](#)

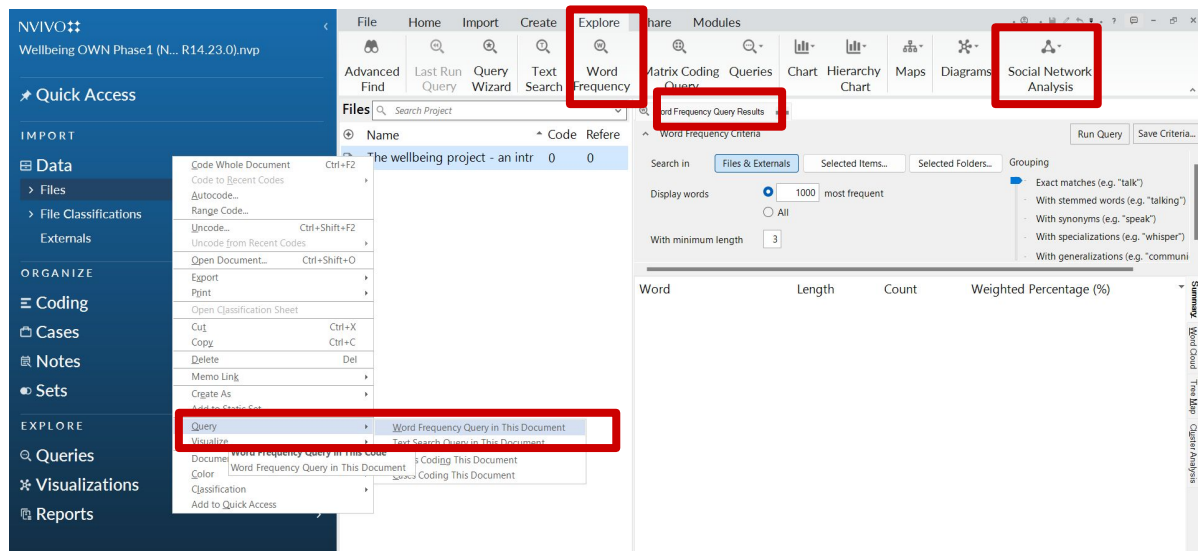
To add a “case” to a file, it’s the same method as adding a code, except you choose the “Cases” folder and the proper case.



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.”

The screenshot shows the QSRN Crosstab window with the following components:

- Queries Panel:** A red box highlights the 'Queries' icon in the top toolbar.
- Crosstab Criteria Panel:** A red box highlights the 'Codes' section, which contains 'Codes\mental-emotional wellbeing'. An orange box with the text 'Selected codes (click the plus sign)' points to this section.
- Cases Panel:** A red box highlights the 'Cases' section, which lists several cases. An orange box with the text 'Selected cases (click the plus sign)' points to this section.
- Results Table:** A red box highlights the table showing the results of the query. An orange box with the text 'Your results' points to this table.

	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

Exploring Codes (Windows)

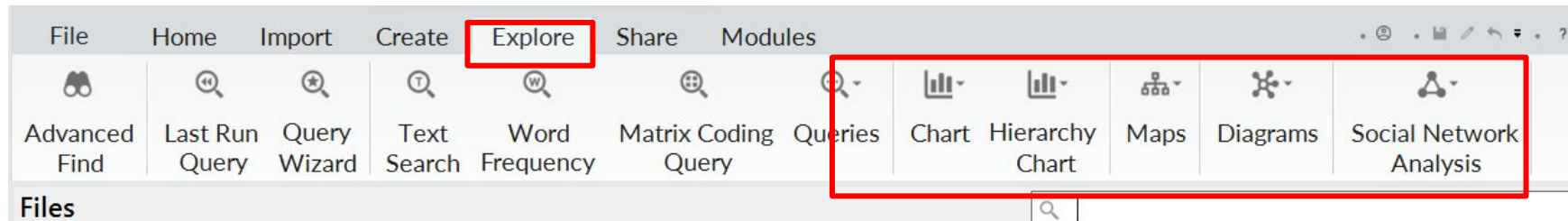
Chart: bar chart of the number of times codes were used in a file

Hierarchy chart: visualizes number of codes used in a file

Explore Diagram: explore the codes used in a file

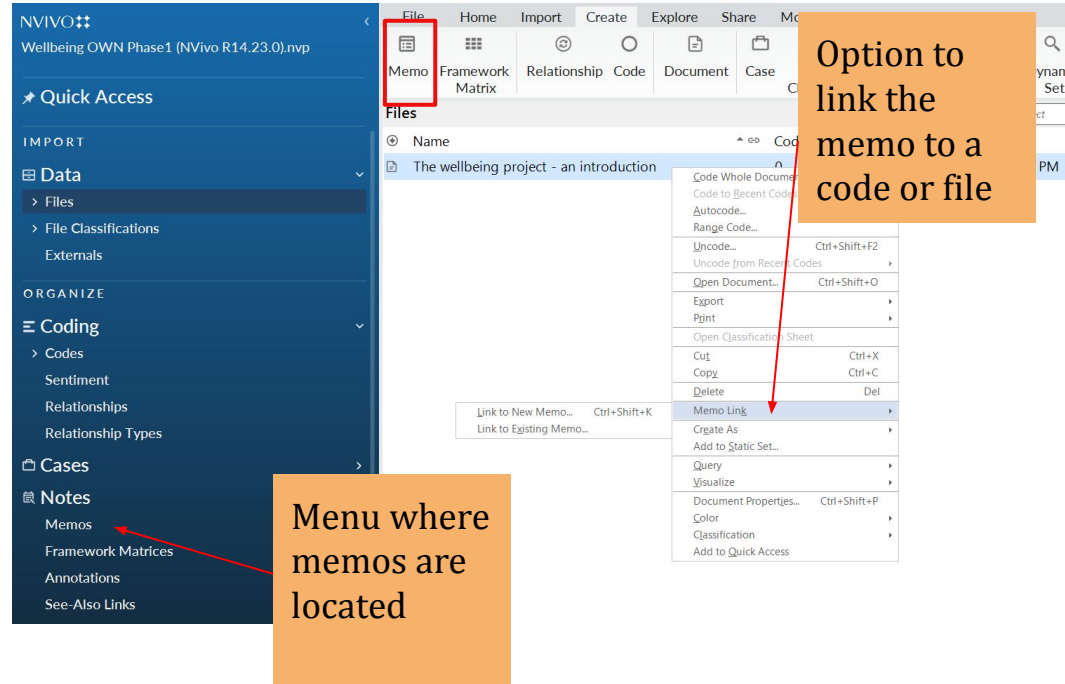
Comparison Diagram: compare the codes used in multiple files

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, a dark blue sidebar contains a 'Quick Access' section and a list of project components: Data, IMPORT, ORGANIZE, Coding, Cases, Notes, and Framework Matrices. The 'Coding' section is expanded, showing 'Codes', 'Sentiment', 'Relationships', and 'Relationship Types'. A context menu is open over the 'Memo Link' option in the 'Relationships' list. This menu includes options like 'Code Whole Document', 'Code to Recent Codes', 'Autocode...', 'Range Code...', 'Unicode...', 'Open Document...', 'Export', 'Print', 'Open Classification Sheet', 'Cut', 'Copy', 'Delete', 'Memo Link', 'Create As', 'Add to Static Set...', 'Query', 'Visualize', 'Document Properties...', 'Color', 'Classification', and 'Add to Quick Access'. The 'Memo Link' option is highlighted, and a sub-menu is visible with 'Open Linked Memo' and 'Delete Memo Link'. On the right, a 'Files' table lists project files. The first row, 'The wellbeing project', is selected, and a red arrow points from the 'Memo Link' sub-menu to this row. The table has columns for 'Name', 'Codes', and 'Referen'.

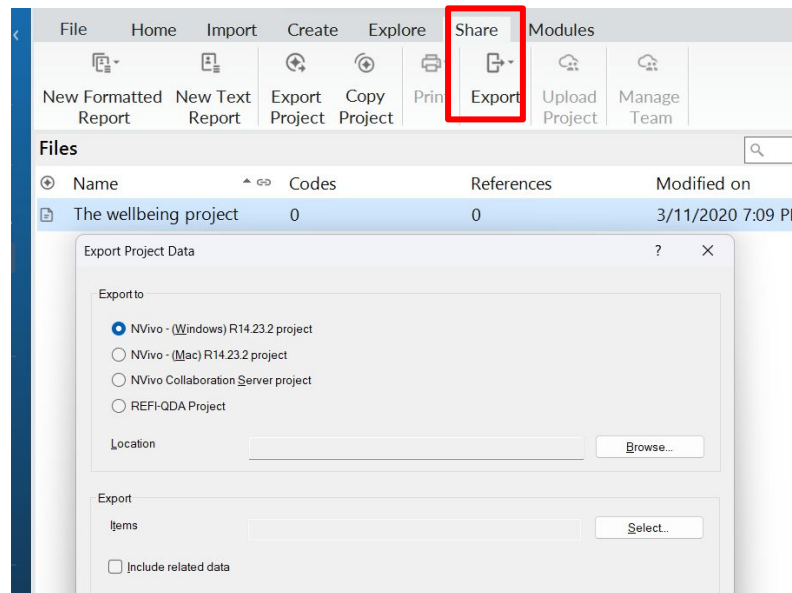
Name	Codes	Referen
The wellbeing project	0	0

Accessing the memo from the file

Exporting Your Project (Windows)

Since there is a cross-platform problem, **save and export your projects as .qdp_x** 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](#) or [“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!
- How do you think the code schema would differ if applying in vivo or process coding styles?

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!

—Developed by: Zhen Guo, Dipa Desai, Sean P. Rogers, Garrett Morrow, Cara Marta Messina, Yana Mommadova, Tieanna Graphenreed, and Emre Tapan

- Course materials:

<https://bit.ly/fa25-dominguez-insh7102-multi>

- 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