

Introduction to Nvivo: Qualitative Coding for Text Analysis

Presented by:
ENGL 4710 Capstone Seminar
Fall 2022
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Northeastern University
NULab for Texts, Maps, and Networks

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

Workshop Agenda

- Workshop objectives
- Qualitative Coding: annotating and highlighting sources
- What is NVivo?
- Important vocabulary and functions
- NVivo demonstration

Slides & handouts at: <https://bit.ly/fa22-poe-nvivo>



Coding in practice

key, at that point.

M: Sure sure, so I did not understand, what was the comparison with other five, with other locals, did they have more issues or less, or did they also have that similar experiences like you, across all those different locals [26]

R1: They had, you know, similar experiences that I did. Very strong, present, you know, walking. I didnt see hear, early on, anyways for the initial, when we pulled them that day, the Thursday, that anyone was saying "i'm not going". Didnt hear that from anybody. Didnt hear it from my local, didnt hear it, you know because all the locals have facebook pages too. You know, they have, social pages, so you can also keep in touch that way, and, you know, between reading and [unclear], you know talking to [unclear] and stuff like that, we were hearing nothing but positive feedback, on on, people walking. People were ready. They were angry, with the contract that was being presented, and they were ready, they were ready to take it, to go to the sidewalk [27] so to speak. And then, and to state their point, yep.

M: Can I maybe ask you yes, related to that anger, like, how did people, hm how to say, how did they precisely rationalize their anger, or, how did they justify their anger. What did they say, who, or how did they understand, why that injustice was being done to them. How did they understand why the managers at all decided to offer them such a bad contract, how did they think about that anger?

R1: Sure. So, with that, when we, when we, with the organizer, we met earlier, weeks earlier to, so, we met up in [unclear], the organizer brought as many - you know, every, its open invitation, to any local member of the store, to come to this, rather large gathering of people [28] where he broke down the contract. So, not only if you couldn't make, these contract breakdowns came back to the store, and were handed out to, individuals to read, and were posted on the union board. So, the people had time to see, what the contract, you know, here



What can NVivo do?

NVivo is designed for qualitative coding research materials, such as survey results, interviews, audio recording, text documents, articles, and other data formats. It also has other functions:

- create projects that store, organize, and code documents/files
- provide a method for you to code your documents with a user-created coding schema (nodes)
- query, summarize, organize, and visualize information about your coding
- conduct forms of computational text analysis, like word counts, on the documents themselves



NVivo is NOT cross-platform 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 (10, 11, 12) also impact which projects can be opened on which platform



Anatomy of NVivo: Opening on Windows

Your version number (you should have version **11** or **12**)

The recent projects you opened

Open another project that is not recent

NVivo 12 Pro

Recent Projects

Parole Transcription Code

NVivo Experimentation

Open Other Project

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

NEW

Blank Project

Sample Project

Learn and Connect

Research Ready

Getting Started

Customer Success Center

to be best in any point of view. Research search for examine in facts or prin

Get your research ready for NVivo

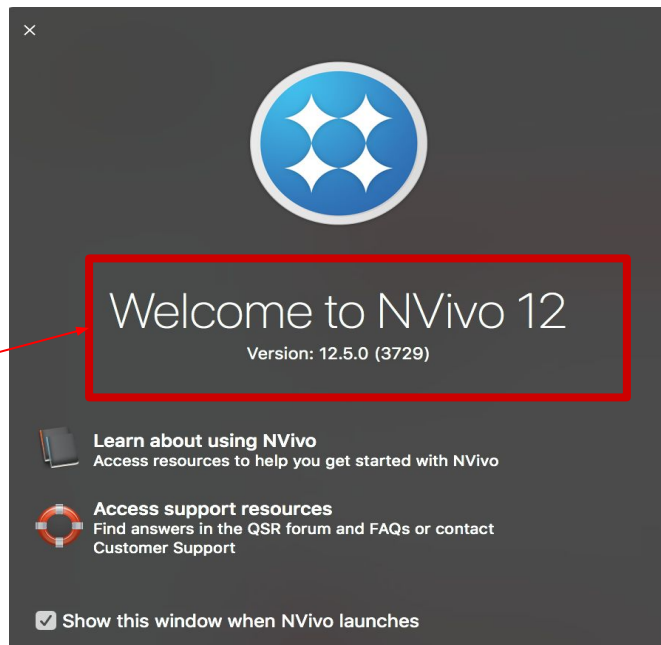
NVivo quick steps tutorial

Courses, resources & support



Anatomy of NVivo: Opening on Macs

Your version number (you should have version 11 or 12)



Create new project
Create a new project

Create a copy of the sample project
Explore and experiment with NVivo using the sample project

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

Parole Trans Code_...sion (NVivo 12).nvp
~/Downloads

TEST.nvp
~/Documents

Untitled.nvp
~/Documents

Sample Project.nvp.nvp
~/Downloads

The recent projects you opened

Open Another Project...

Open

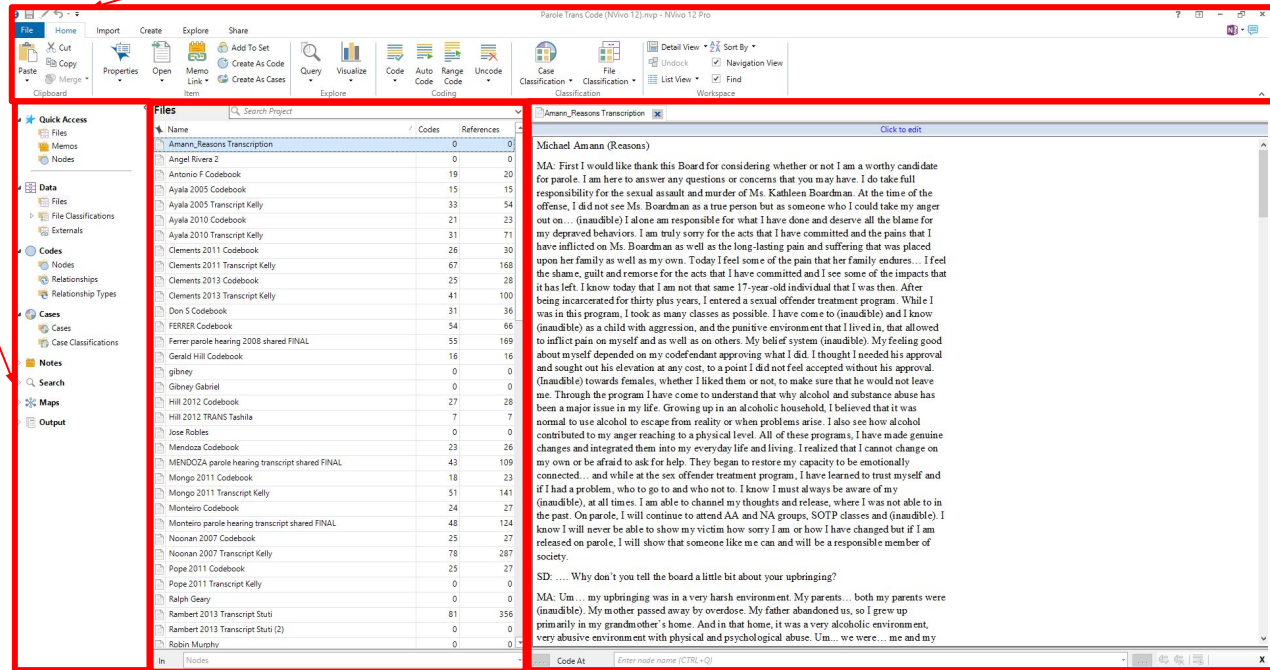
Open another project that is not recent



Anatomy of NVivo: Projects on Windows

Toolbar to access functions

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



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

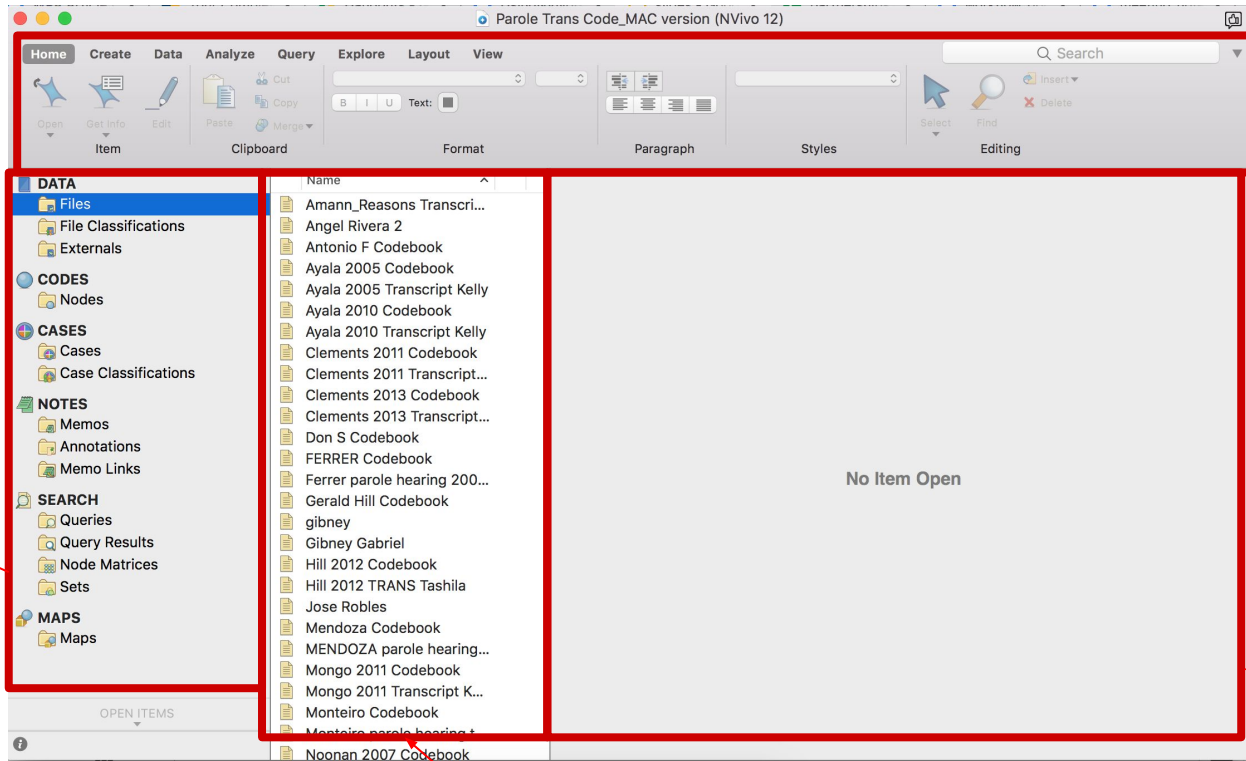
List of nodes, files, etc.



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Anatomy of NVivo: Projects on Macs



Toolbar to access functions

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

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

List of nodes, files, etc.

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NVivo Vocabulary

Full definitions available on the handout

- **Data:** your research documents & files
- **Codes:** the method to annotate the themes/concepts (same as **Nodes**)
- **Nodes:** the actual themes/concepts that you create
- **Relationships:** coding connections between two data items
- **Cases:** units of analysis for your research.
- **Maps:** visualization tool to see connections between the cases and nodes
- **Query:** a flexible way to explore and analyze your files, cases, and nodes



Important Reminders

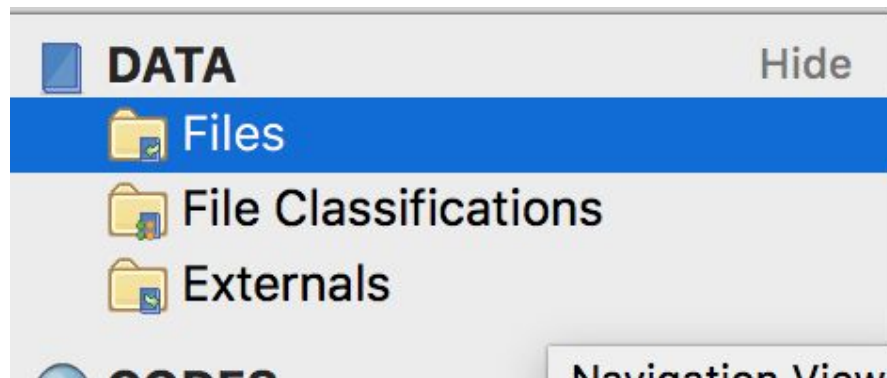
NVivo can import all types of files, including .docx, .pdf, .doc, .csv, .png, .jpeg, .txt, video/audio files, and more.

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.



Data

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

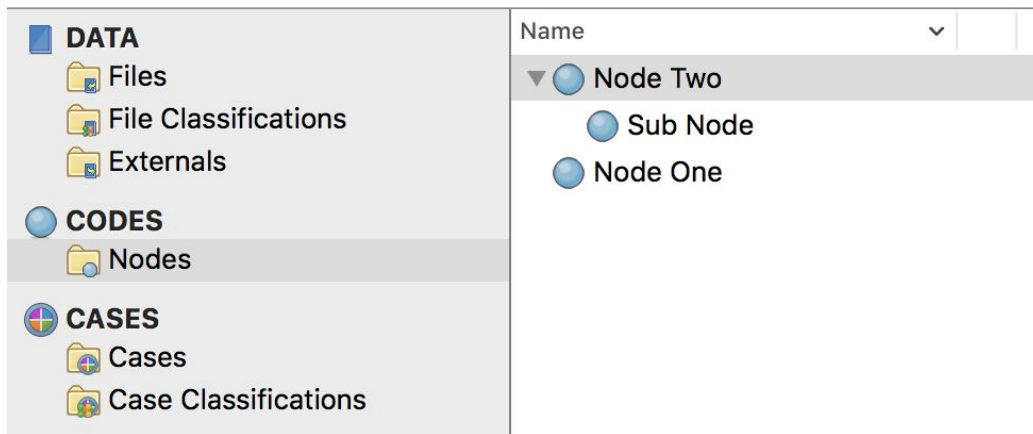


“Files” will be where you can access all the research materials you have imported into this project.



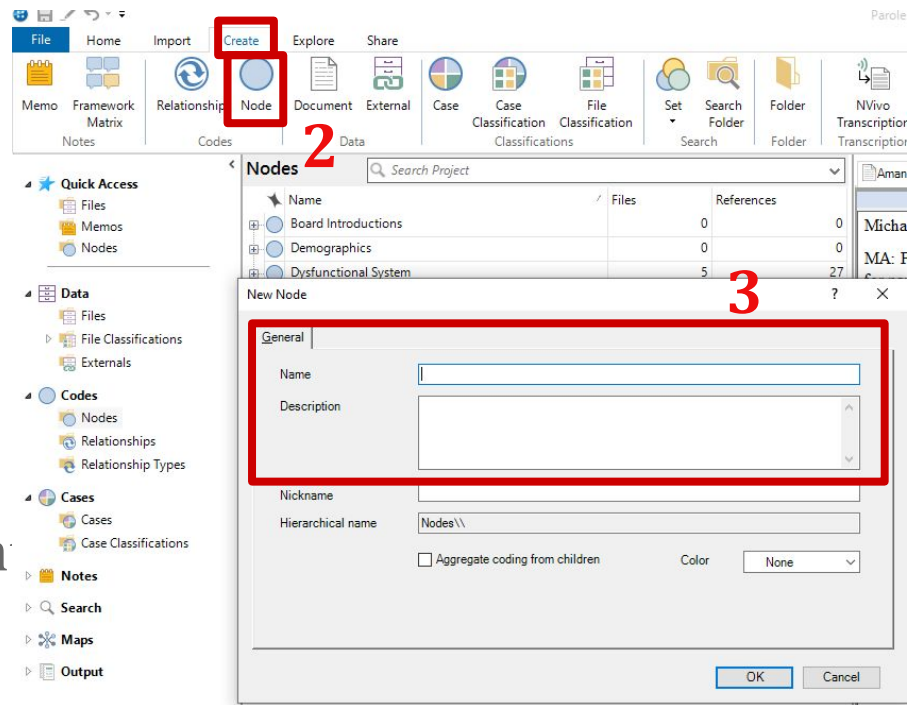
Codes and Nodes

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



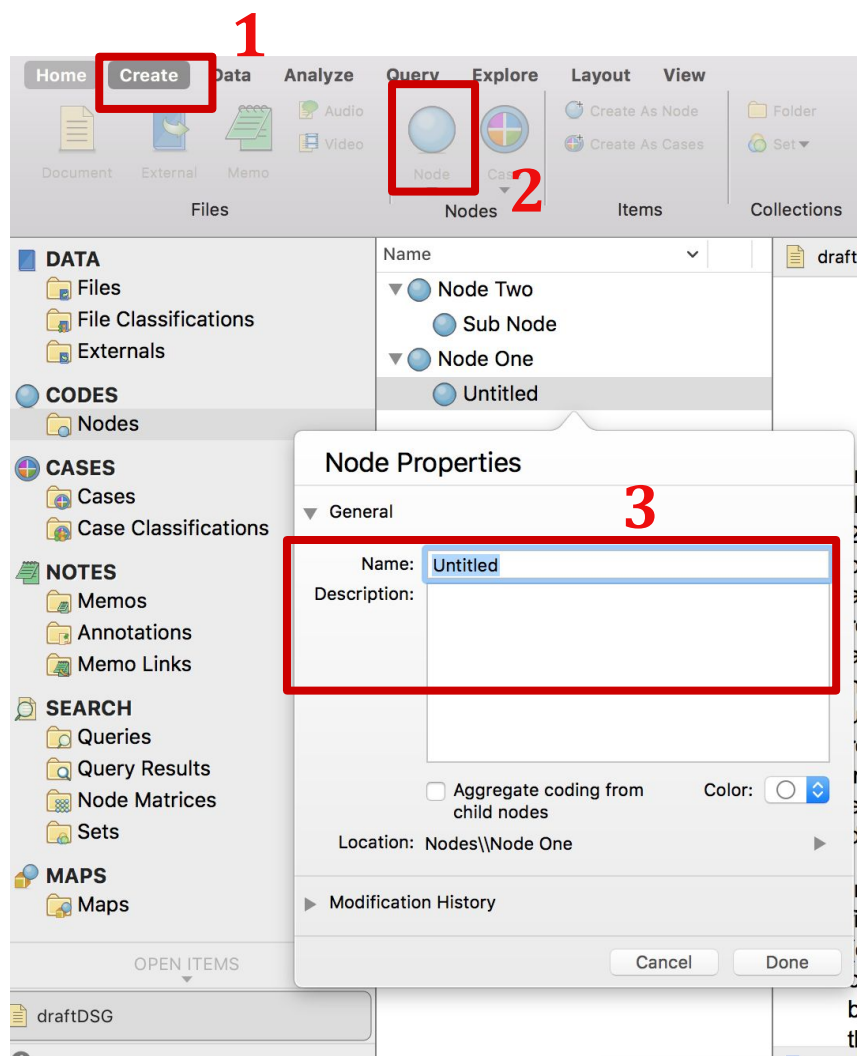
Creating Nodes (Windows) 1

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



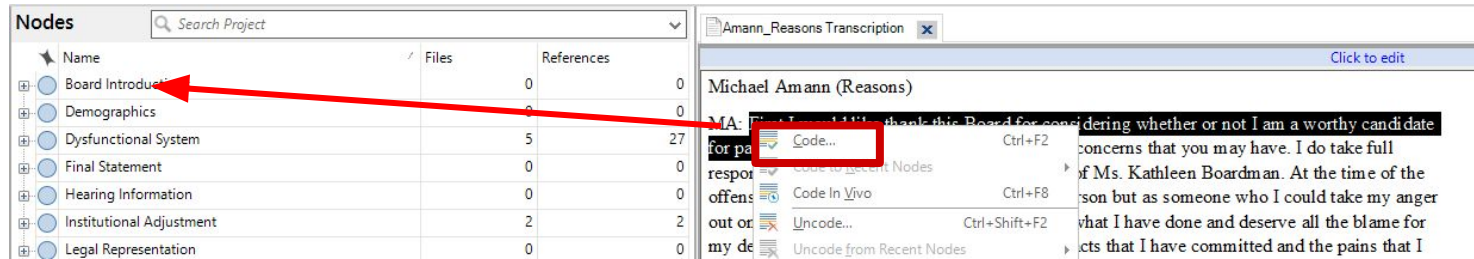
Creating Nodes (Macs)

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



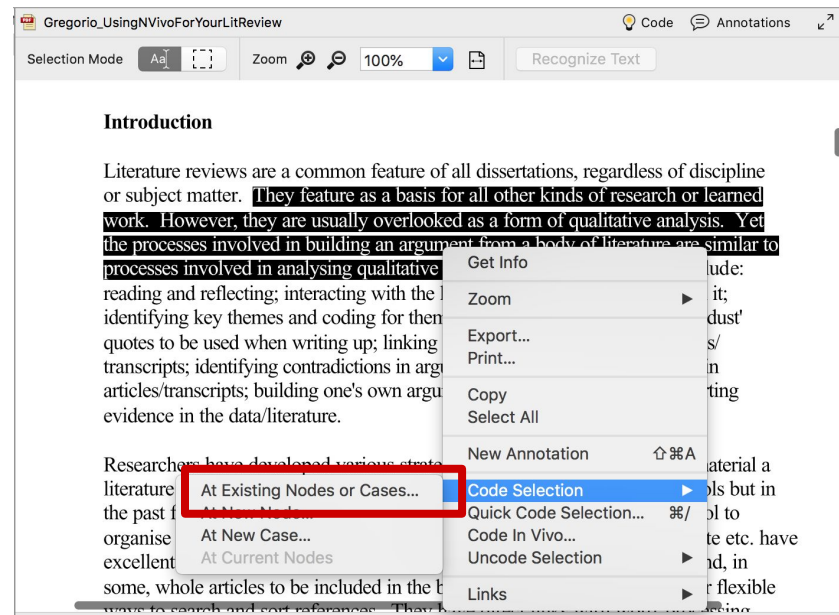
Coding Files/Documents (Windows)

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 node
4. Alternatively, you can Command/Control+click and select “Code”
5. You can also add new nodes/cases as you annotate



Coding Files/Documents (Macs)

1. Open the file you would like to annotate
2. Highlight the text you want to code
3. Command/Control+click and go to “Code Selection”
4. Click “At Existing Nodes or Cases”
 - a. Once you use nodes, the nodes will show up when you click “Code Selection”
 - b. You can also add new nodes/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.
 - a. If you have tagged an entire file as a “case,” everything will be highlighted. Simply choose “Coding for Selected Items”

The screenshot shows the NVivo 12 Pro interface. The 'Document Tools' menu is open, showing 'Highlight' and 'All Coding'. The 'Coding Stripes' window is open, showing a list of codes and their matches. The document text is displayed with yellow highlighting on specific phrases. The 'Coding Stripes' window is also open, showing a list of codes and their matches. The document text is displayed with yellow highlighting on specific phrases.

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

The document you are coding and annotations

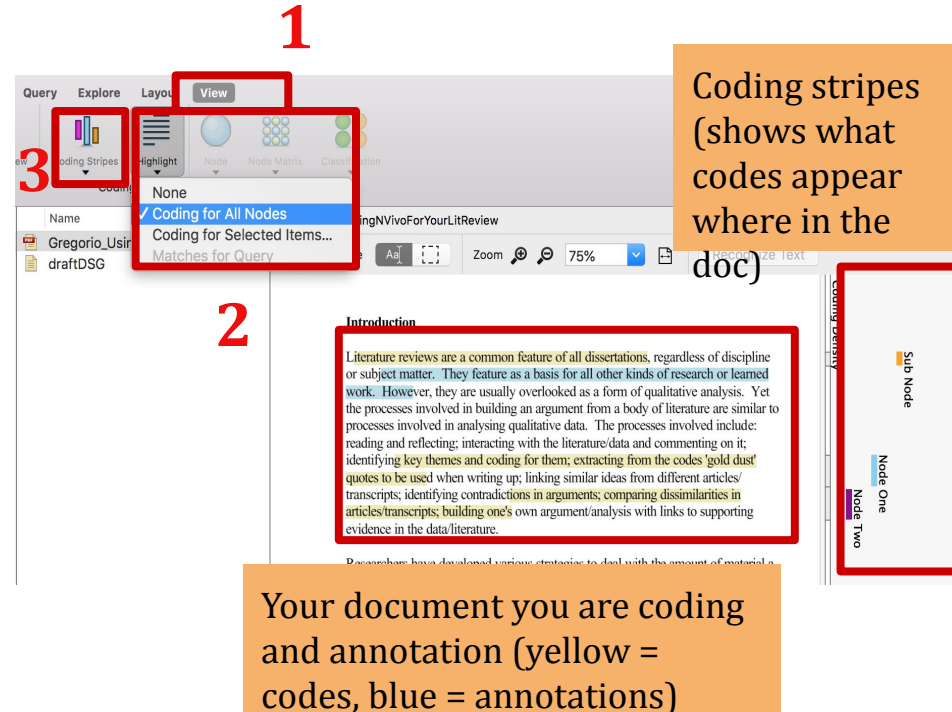


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View Your Codes (Macs)

1. Go to “View” in the toolbar
2. Click “Highlight” then “Coding for All Nodes”
3. Click “Coding Stripes” and “All Nodes 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. Simply choose “Coding for Selected Items”



The screenshot shows the NVivo software interface. The 'View' menu is open, showing options like 'Highlight', 'Node', 'Node Matrix', and 'Classification'. The 'Highlight' option is selected, and a sub-menu is open showing 'Coding for All Nodes' (highlighted in blue), 'Coding for Selected Items...', and 'Matches for Query'. The document 'Gregorio_Usir draftDSG' is open, showing a text excerpt with yellow highlights and blue annotations. The 'Coding Stripes' panel on the right shows 'Node One' and 'Node Two' with corresponding coding stripes. The text in the document includes: 'Introduction Literature reviews are a common feature of all dissertations, regardless of discipline or subject matter. They feature as a basis for all other kinds of research or learned work. However, they are usually overlooked as a form of qualitative analysis. Yet the processes involved in building an argument from a body of literature are similar to processes involved in analysing qualitative data. The processes involved include: reading and reflecting; interacting with the literature/data and commenting on it; identifying key themes and coding for them; extracting from the codes 'gold dust' quotes to be used when writing up; linking similar ideas from different articles/transcripts; identifying contradictions in arguments; comparing dissimilarities in articles/transcripts; building one's own argument/analysis with links to supporting evidence in the data/literature. Researchers have developed various strategies to deal with the amount of material a

1

2

3

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

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



Annotating Files (Windows)

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

The screenshot illustrates the workflow for annotating files. On the left, the 'Notes' section in the sidebar is highlighted, indicating where all annotations are stored. The central 'Annotations' panel shows a list of annotations with columns for 'File Name' and 'Number'. The main document window displays a text file with a specific paragraph highlighted in orange. A red box highlights this text, and an arrow points from it to the 'Annotations' panel, showing how the highlighted text is used to create an annotation. Below the document, an 'Annotations' table is shown, listing the created annotation.

Item	Content
1	This is an annotation

List of
annotations

Where you can find
all your annotations
listed

The text from the
document you
highlighted and
are annotating

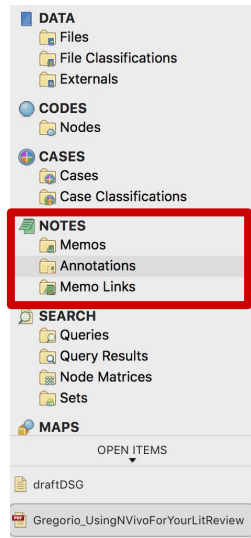
Your annotation



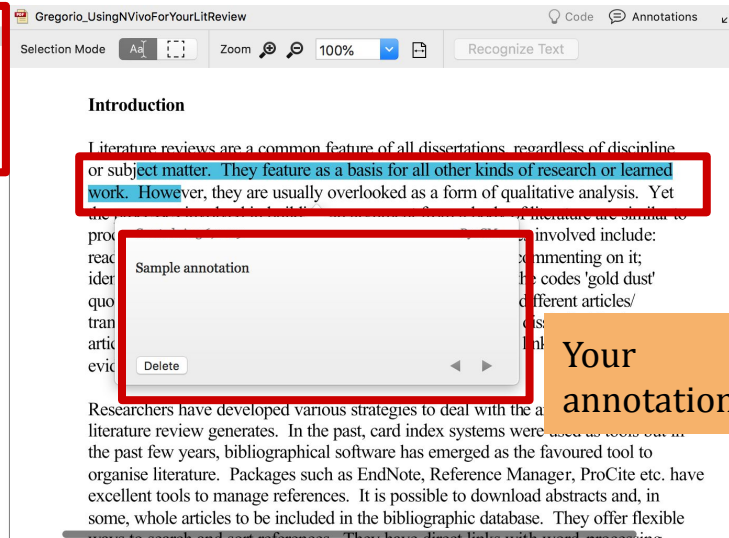
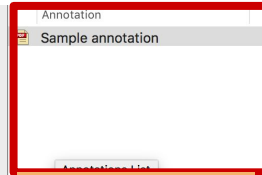
Annotating Files (Macs)

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

Where you can find all your annotations listed



List of annotations



The text from the document you highlighted and are annotating

Your annotation



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 node

The screenshot displays the NVivo software interface. On the left, the 'Notes' section in the 'Quick Access' pane is highlighted with a red box. In the center, a context menu is open for a selected node, with the 'Memo Link' option highlighted by a red box and an arrow. On the right, an orange callout box contains the text 'Option to link the memo to a node' with an arrow pointing to the 'Memo Link' option. Another orange callout box at the bottom center contains the text 'Menu where memos are located' with an arrow pointing to the 'Notes' section in the left pane. The background shows a list of nodes and a table with columns for Name, Files, and References.

Option to link the memo to a node

Menu where memos are located



Memo links (Windows)

Showing the link between the file and the memo

Accessing the memo from the file



Memos and memo links (Mac)

This screenshot shows the 'Create' menu in the software interface. The 'Memo' option is highlighted with a red box. An orange callout box labeled 'Menu where memos are located' points to this menu. Another orange callout box labeled 'Option to link the memo to a node' points to the 'Memo Link' option within the 'Create' menu. A third orange callout box labeled 'Navigating memo creation' points to the 'Create' menu itself. The interface also shows a list of nodes on the left and a central workspace with a file named 'test'.

Menu where memos are located

Navigating memo creation

Option to link the memo to a node

This screenshot shows the 'Memo Link' option in the 'Create' menu. An orange callout box labeled 'Showing the link between the file and the memo' points to the 'Memo Link' option. Another orange callout box labeled 'Accessing the memo from the file' points to the 'Open Linked Memo' option within the 'Memo Link' submenu. The interface also shows a list of nodes on the left and a central workspace with a file named 'test'.

Showing the link between the file and the memo

Accessing the memo from the file

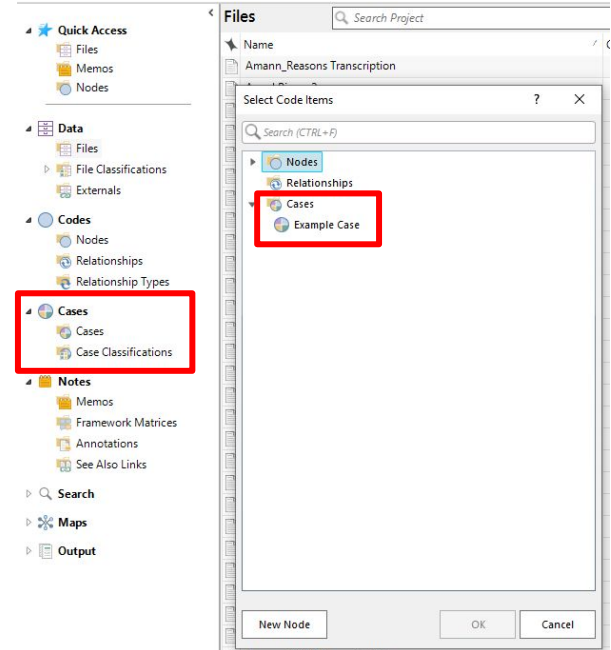


Cases (Windows)

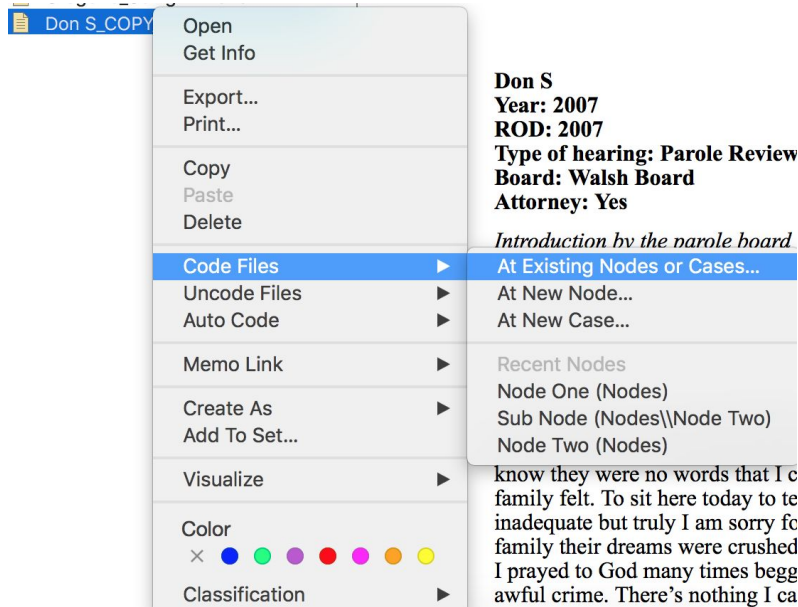
Cases are the types of research texts in your project; they can be organized based on your selections. **“They might represent people, places, events, organizations or other entities that you want to analyze and compare.”** For example, if you have several transcripts from different trials, but want 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 node, except you choose the “Cases” folder and the proper case.



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



Cases (Macs)



Querying

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

- **Word Frequency:** Counts the number of times words (with stopwords removed) appear in one or more files
- **Coding:** Shows the number of codes, the text that was coded, and the files
- **Crosstab:** cross-references nodes and case classifications. For example, you might want to know how often a particular node appears in both scholarly articles and your primary texts.



Word Frequency Example (Windows)

“Query” can be found in the
“Explore” Tab

Alternatively, you can
Command/Control+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”

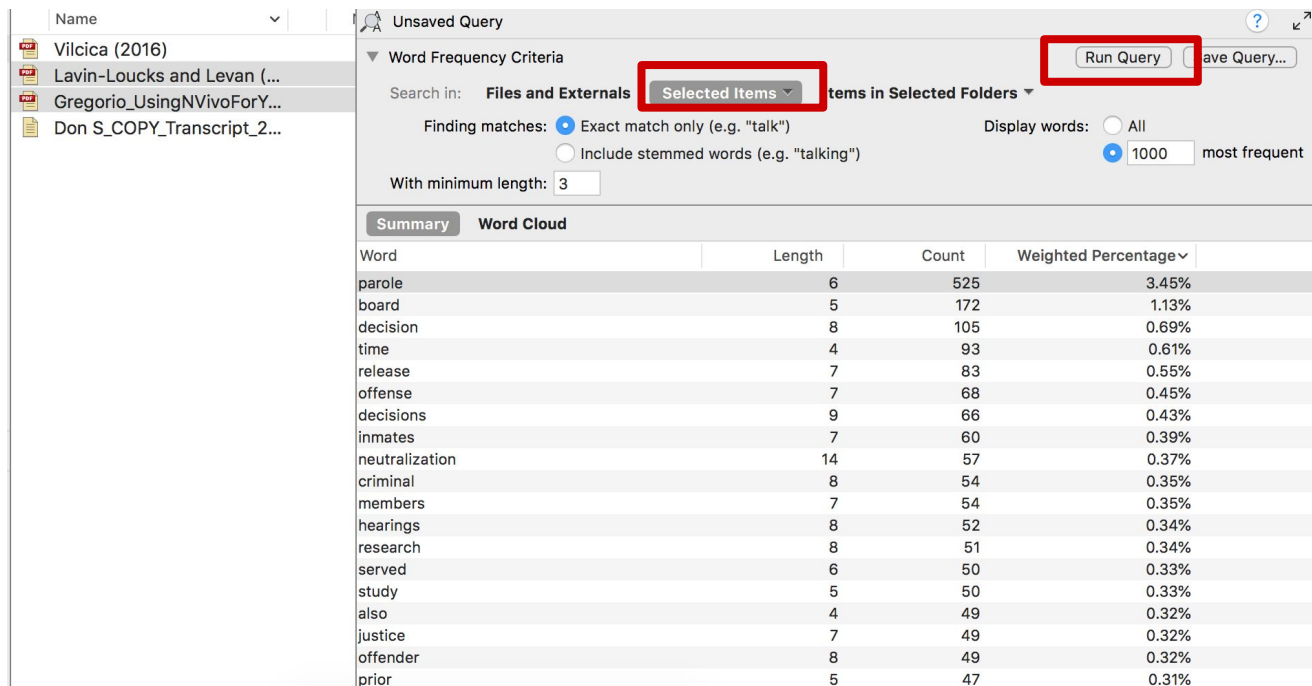
The screenshot displays the NVivo 12 Pro interface. The 'Explore' tab is active, and the 'Query' button is highlighted in the top toolbar. The 'Files' list on the left shows a selection of documents, with the 'Query' option highlighted in the context menu. The 'Word Frequency Query Results' window is open, showing the 'Selected Items...' tab. The 'Run Query' button is highlighted in the top right corner of the results window. The results table below shows the following data:

Word	Length	Count	Weighted Percentage (%)
time	4	13	1.40
inaudible	9	12	1.29
know	4	11	0.86
mean	4	10	1.08
assault	7	8	0.86
feel	4	8	0.86
care	4	6	0.65
codependant	11	6	0.65
around	5	6	0.65
around	4	6	0.65
around	6	6	0.65
around	5	6	0.65
around	4	6	0.65
around	6	5	0.54
around	8	5	0.54



Word Frequency Example (Mac)

Select the items you would like to query in the “Selected Items” tab and then click “Run Query”



Word	Length	Count	Weighted Percentage
parole	6	525	3.45%
board	5	172	1.13%
decision	8	105	0.69%
time	4	93	0.61%
release	7	83	0.55%
offense	7	68	0.45%
decisions	9	66	0.43%
inmates	7	60	0.39%
neutralization	14	57	0.37%
criminal	8	54	0.35%
members	7	54	0.35%
hearings	8	52	0.34%
research	8	51	0.34%
served	6	50	0.33%
study	5	50	0.33%
also	4	49	0.32%
justice	7	49	0.32%
offender	8	49	0.32%
prior	5	47	0.31%



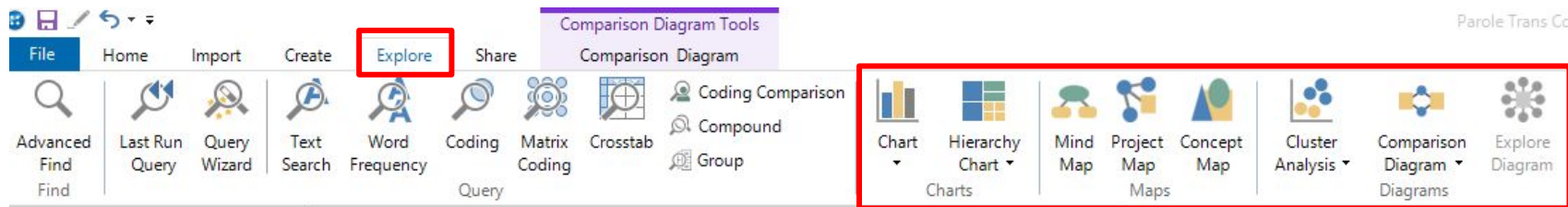
Exploring Codes (Windows)

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 nodes used in multiple files



Qualitative Coding is about *Interpretation and Arguments*

The nodes you create are **arguments** themselves; you are choosing what information you value and want to extract from the transcripts



Thank you!

If you have any questions, contact DITI at nulab.info@gmail.com

Sign up for DITI office hours! <https://calendly.com/diti-nu>

Developed by: Yana Mommadova, Tieanna Graphenreed, Dipa Desai, and Emre Tapan
DITI/NULab Fellows

Slides, handouts, and data available at: <https://bit.ly/fa22-poe-nvivo>

