

Introduction to Nvivo: Qualitative Coding for Text Analysis

Presented by:
ENGL 4710 Capstone Seminar
Fall 2022
Prof. Mya Poe



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
- Hands-on activity

Slides & handouts at: <https://bit.ly/3JDFPDr>



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 didn't see hear, early on, anyways for the initial, when we pulled them that day, the Thursday, that anyone was saying "i'm not going". Didn't hear that from anybody. Didn't hear it from my local, didn't 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

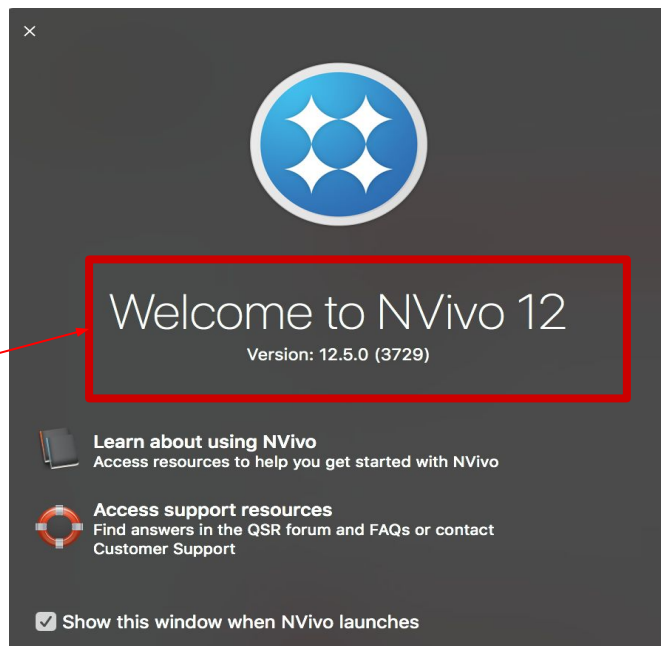
NVivo quick steps tutorial

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

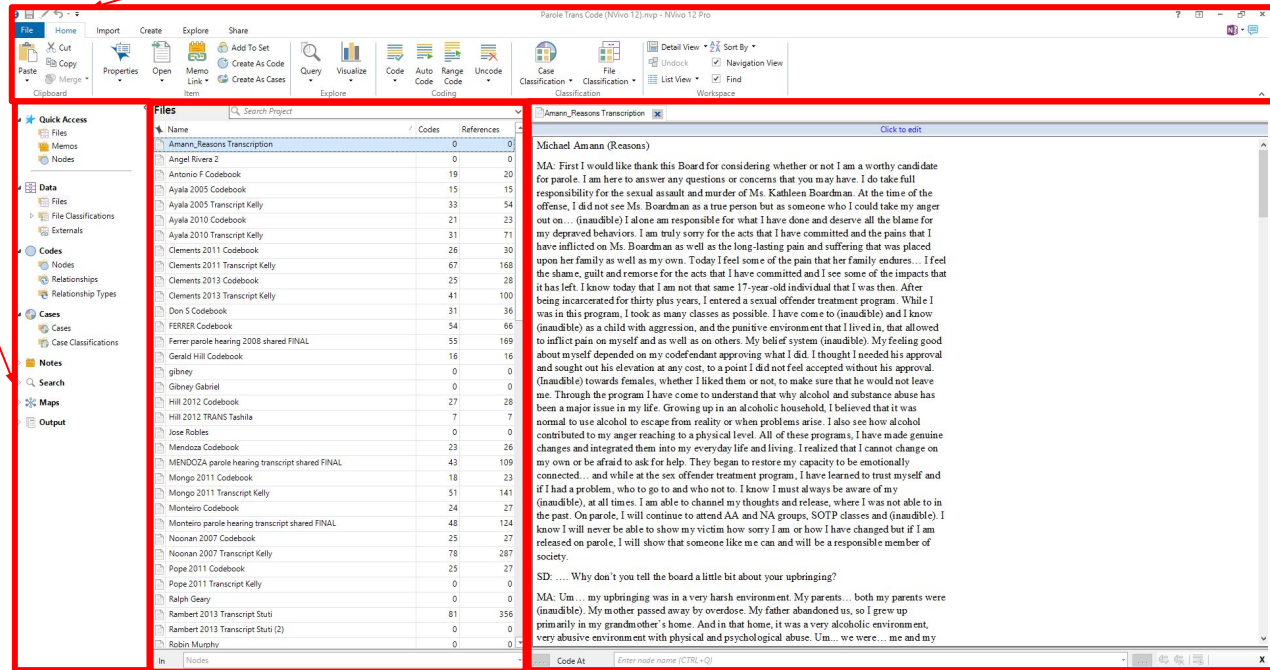
Open another project that is not recent



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.

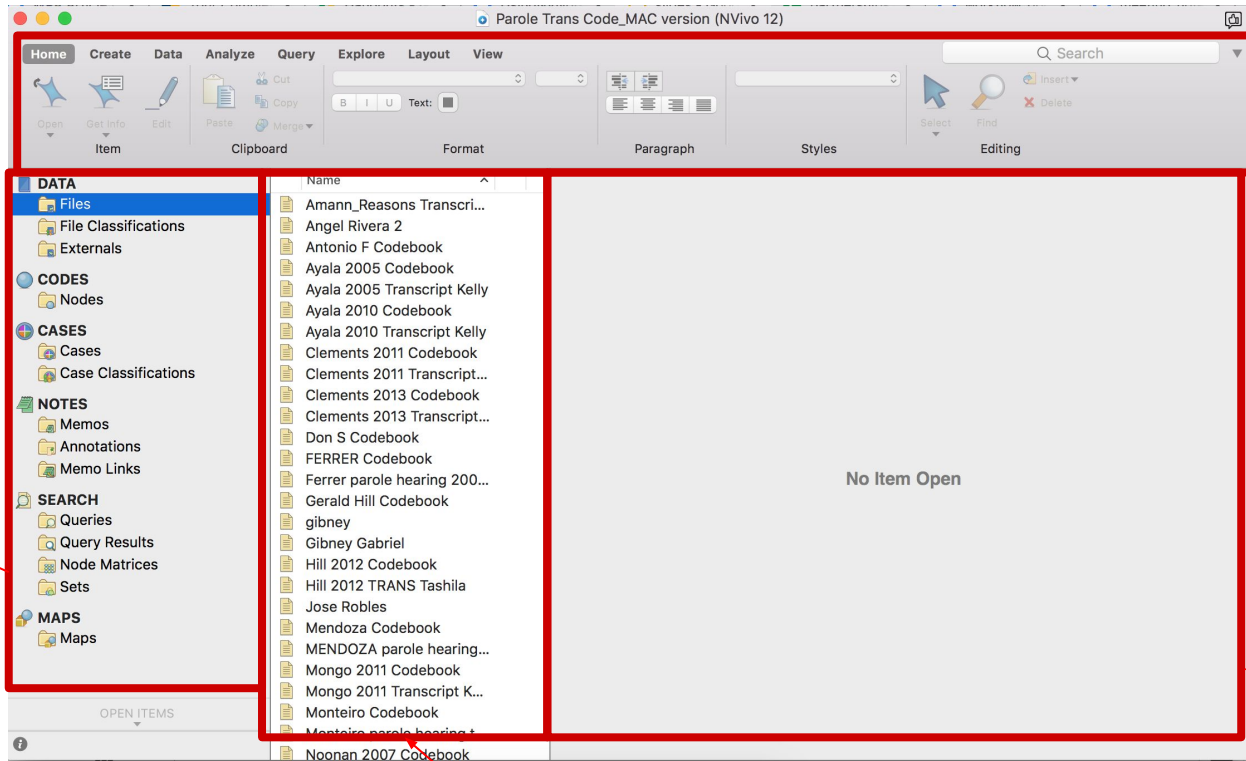
List of nodes, files, etc.



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

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

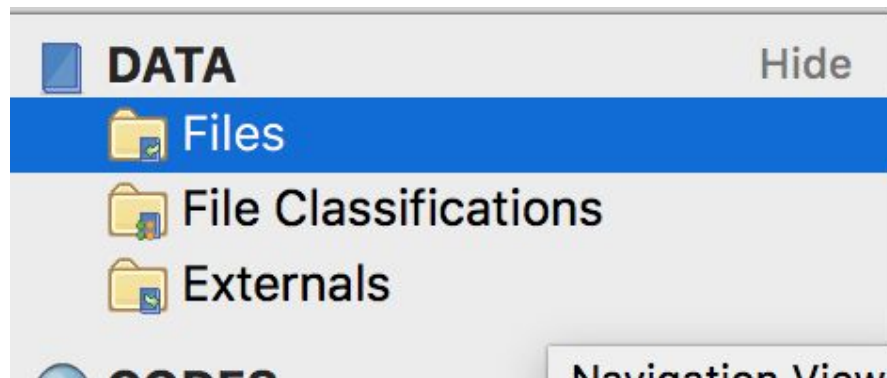
NVivo can import all types of files, including .docx, .pdf, .doc, .csv, .png, .jpeg, .txt, video/audio files, and more.

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.).

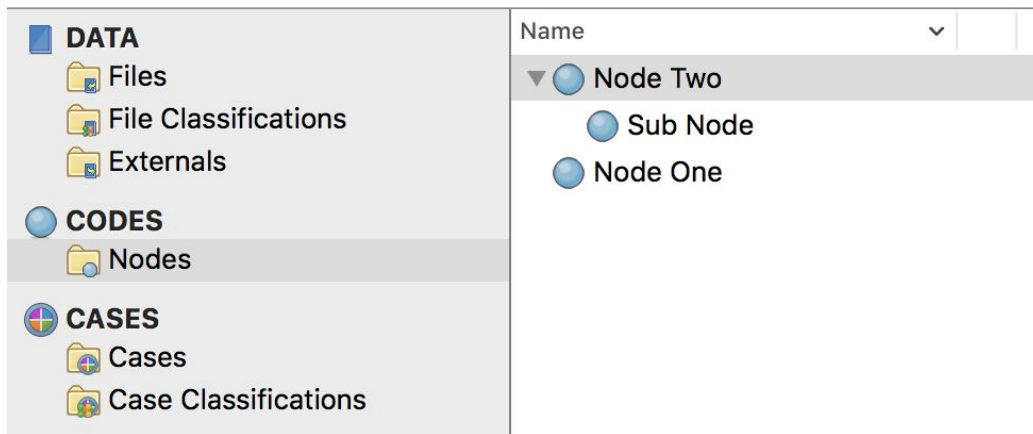


“Files” will be where you can access all the research materials you have imported into this project.



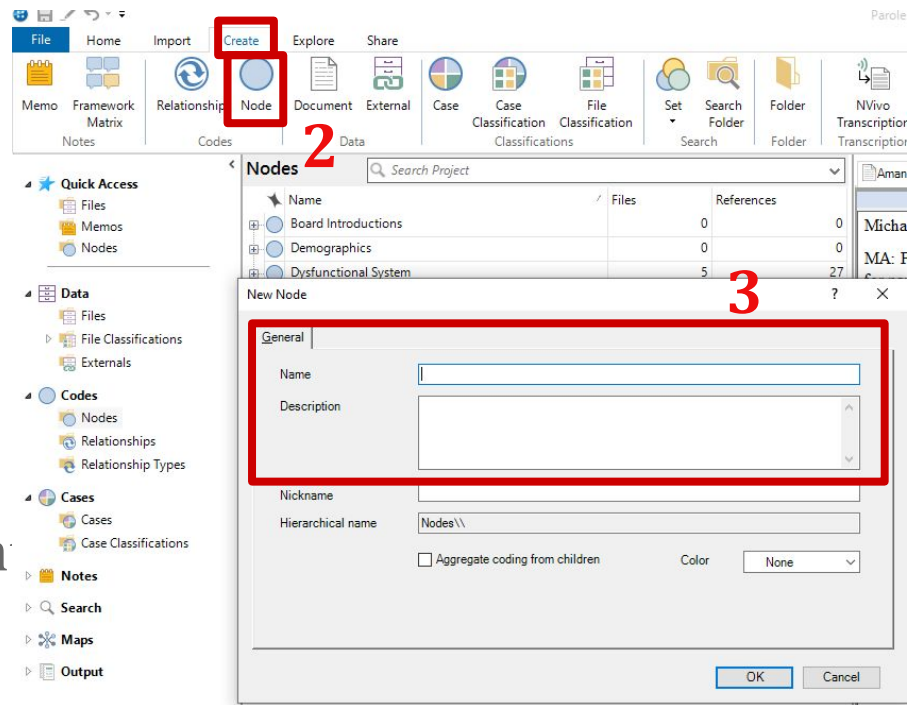
Codes and Nodes

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



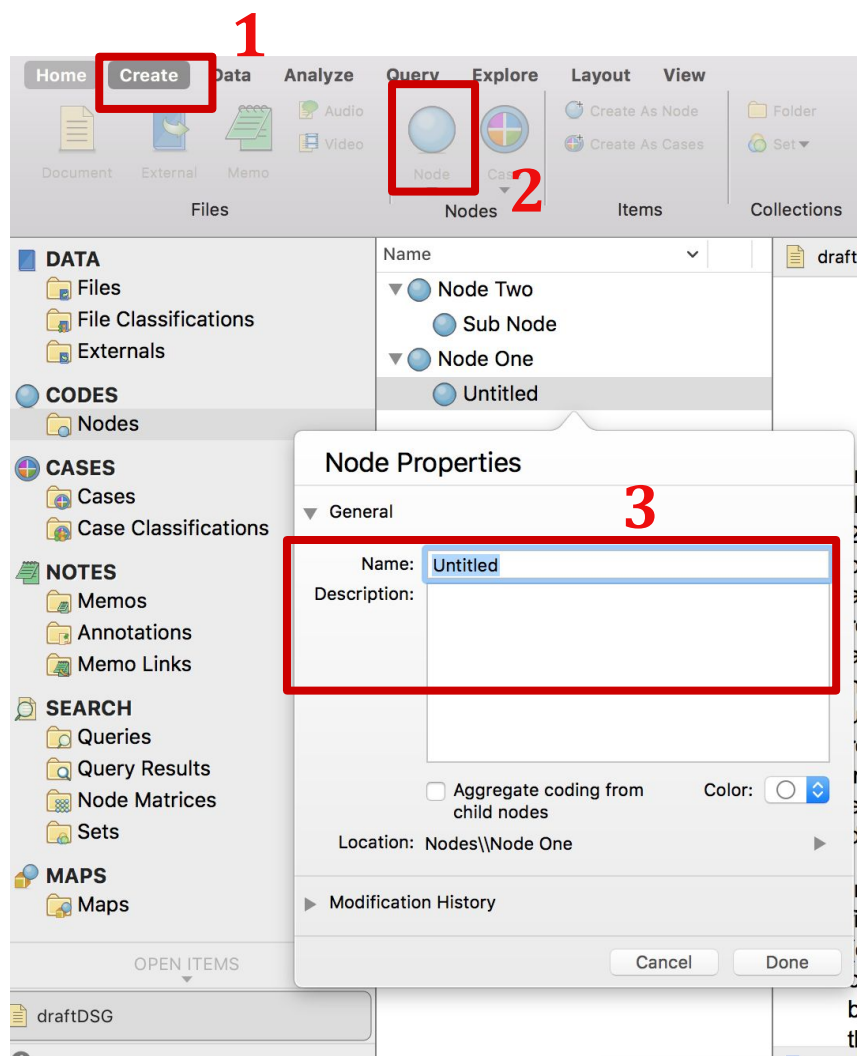
Creating Nodes (Windows) 1

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



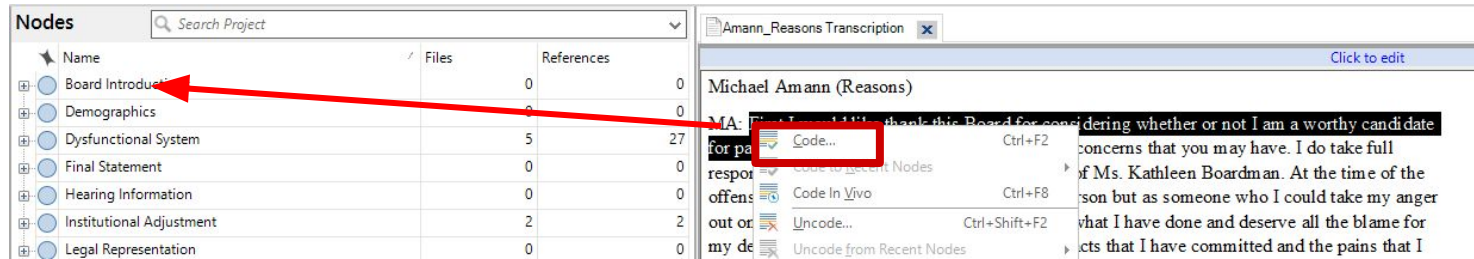
Creating Nodes (Macs)

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



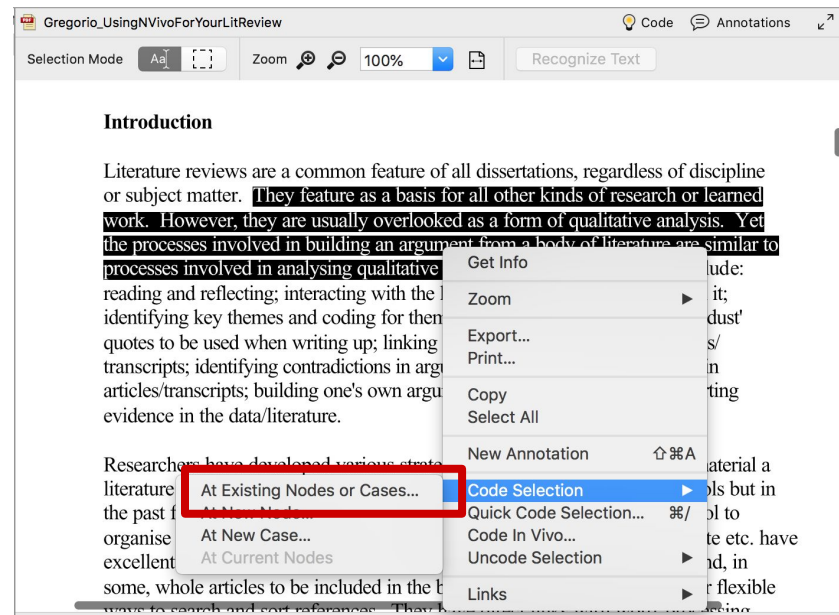
Coding Files/Documents (Windows)

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 displays the NVivo 12 Pro software interface. The top toolbar includes a 'Document' button (indicated by a red arrow and the number 1). Below it, the 'Highlight' menu is open, showing 'All Coding' selected (indicated by a red arrow and the number 2). The 'Coding Stripes' sidebar on the left is also visible (indicated by a red arrow and the number 3). The main document window shows a transcript titled 'Ayala 2010 Transcript Kelly'. Several segments of the transcript are highlighted in yellow, corresponding to the 'All Coding' selection. These segments include: 'C- 20 years have gone by. So I know, when I look at your record, I should see some significant changes in a 15-year-old boy that did that crime. That has painted that particular area, and those individuals in that area, in the Boston, Dorchester, and Roxbury community. I know that you've done significant programming since then, right? You've changed your life.', 'A- Yes', 'C- What have you done?', 'A- Um, Violence, Violence Reductions, um, Cognitive Thinking.', 'C- I don't see any sex offender treatment.', and 'A- I have not taken the sex offender treatment program. I've asked to go over to the treatment'.

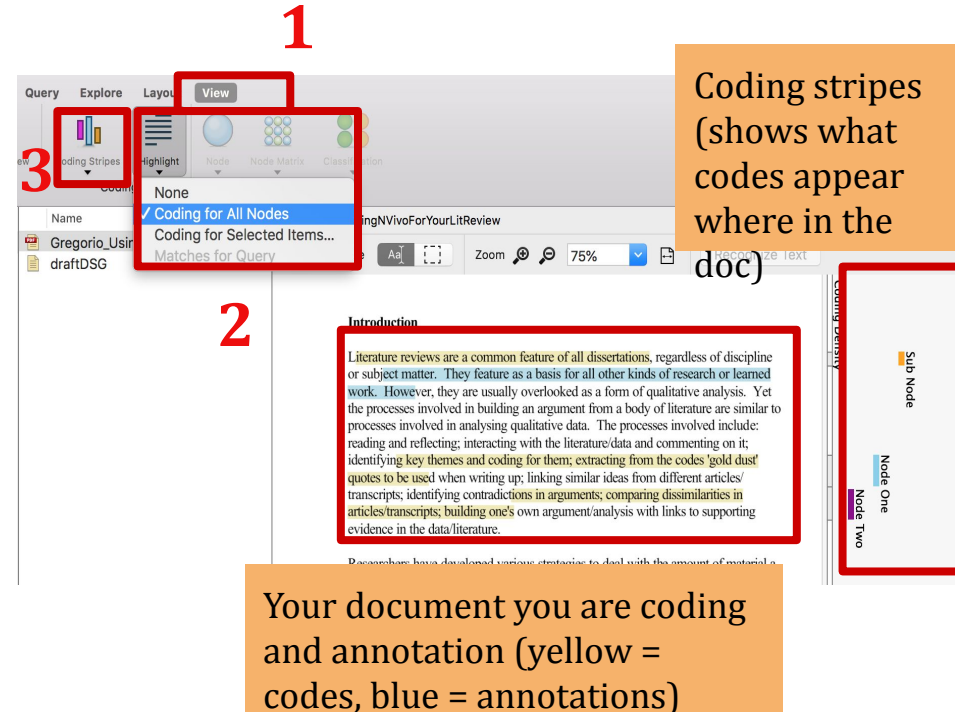
Coding stripes
(shows what codes
appear where in
the doc)

The document you are coding and annotations



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, with 'Highlight' selected. The 'Coding Stripes' submenu is also open, showing 'All Nodes Coding' selected. The document text is displayed with yellow highlights (codes) and blue highlights (annotations). The document title is 'Introduction'. The document content is a paragraph about literature reviews. The document is titled 'Gregorio_Usir draftDSG'. The document is titled 'Introduction'. The document content is a paragraph about literature reviews. The document is titled 'Introduction'. The document content is a paragraph about literature reviews.

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, showing options like 'Memos', 'Framework Matrices', 'Annotations', and 'See Also Links'. The main 'Annotations' panel displays a table with columns 'File Name' and 'Number', listing 'Amann_Reasons Transcription'. The document editor shows a text file with a highlighted segment: 'to inflict pain on myself and as well as on others. My belief system (inaudible). My feeling good about myself depended on my codefendant approving what I did. I thought I needed his approval and sought out his elevation at any cost, to a point I did not feel accepted without his approval. (Inaudible) towards females, whether I liked them or not, to make sure that he would not leave me.' An annotation table at the bottom of the document shows a single entry: '1 This is an annotation'.

File Name	Number
Amann_Reasons Transcription	1

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

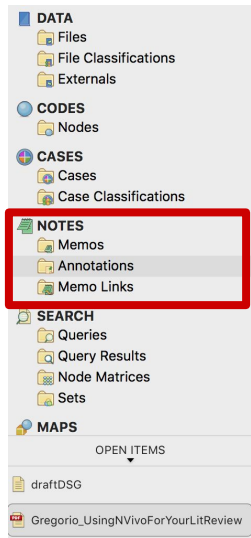
Your annotation



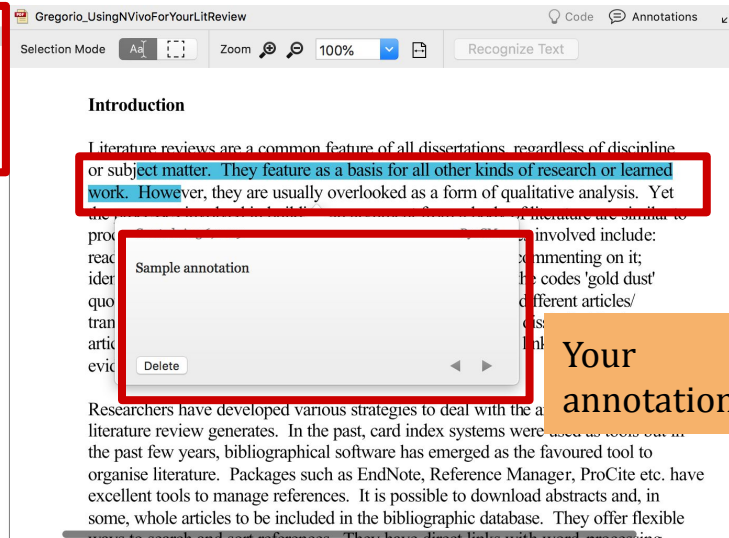
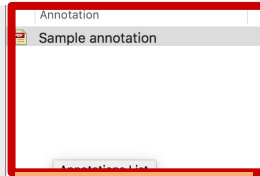
Annotating Files (Macs)

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 sidebar is highlighted with a red box, and an arrow points to it from an orange callout box labeled 'Menu where memos are located'. 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 from an orange callout box labeled 'Option to link the memo to a node'. The 'Memo Link' submenu shows options: 'Link to New Memo...' (Ctrl+Shift+K) and 'Link to Existing Memo...'. The background shows a list of nodes under '1st cycle' and a search bar.



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. 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 'Memo' submenu. A third orange callout box labeled 'Navigating memo creation' points to the 'Create' menu itself.

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 in the submenu. A third orange callout box labeled 'Menu where memos are located' points to the 'Memo' option in the 'Create' menu.

Showing the link between the file and the memo

Accessing the memo from the file

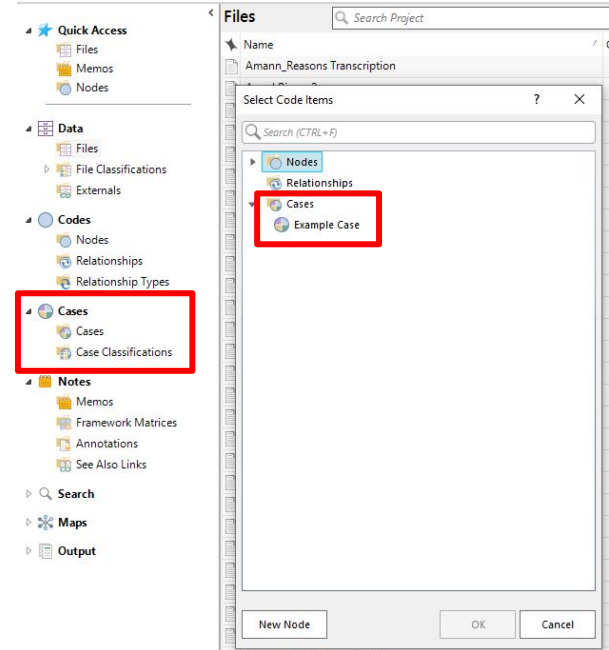


Cases (Windows)

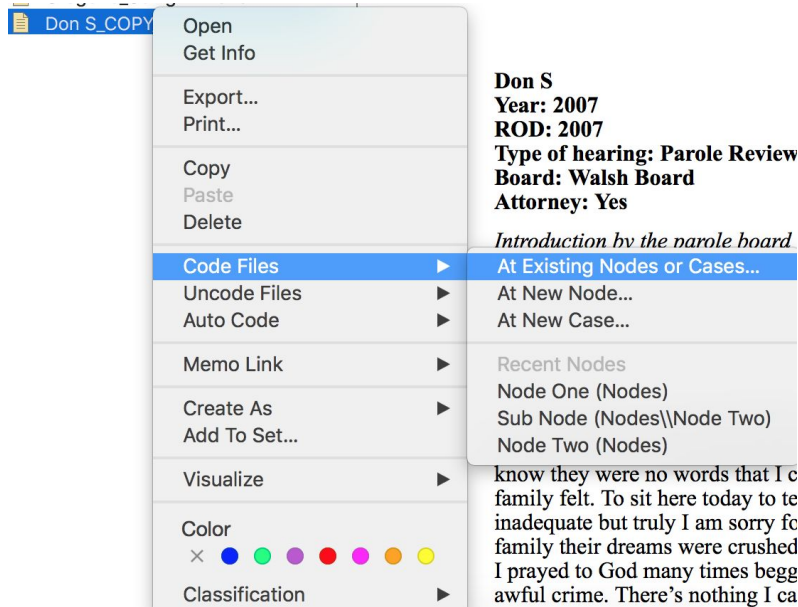
Cases are the types of research texts in your project; they can be organized based on your selections. **“They might represent people, places, events, organizations or other entities that you want to analyze and compare.”** For example, if you have several transcripts from different trials, but want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

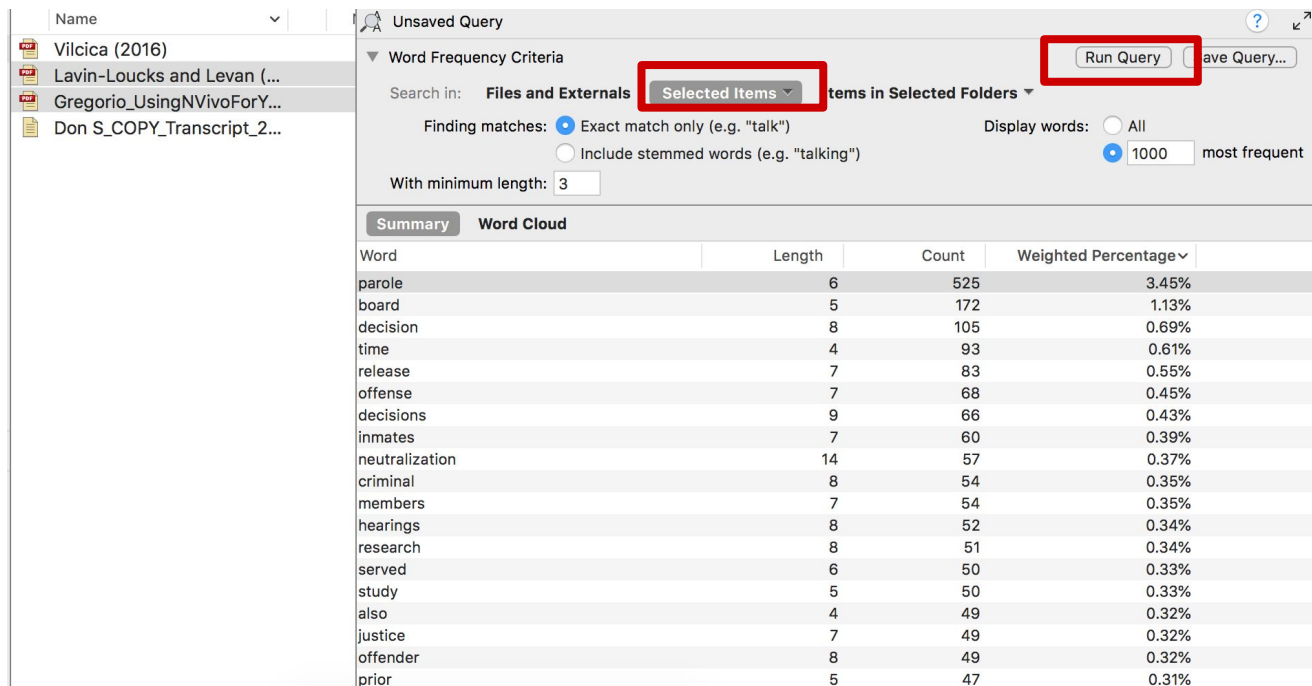
The screenshot displays the NVivo 12 Pro software interface. The top toolbar includes the 'Explore' tab, which is highlighted with a red box. Below the toolbar, the 'Files' pane on the left lists various project files, with the 'Query' option highlighted in a red box. The main window shows the 'Word Frequency Query Results' dialog, where the 'Selected Items...' tab is active and highlighted with a red box. The 'Run Query' button is also highlighted with a red box. The results table below shows a list of words and their frequencies.

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%



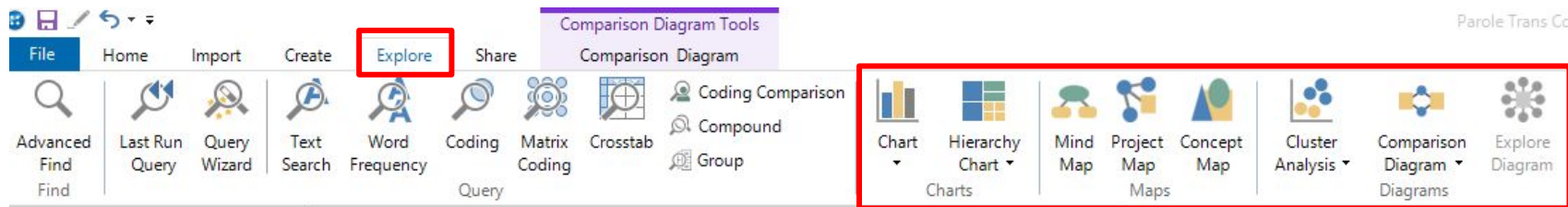
Exploring Codes (Windows)

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>

Taught by:

Developed by: Yana Mommadova, Tieanna Graphenreed, Emre

Tapan and Dipa Desai, DITI/NULab Fellows

DITI/NULab Fellows

Slides, handouts, and data available at: <https://bit.ly/3JDFPDr>

