NVivo Qualitative Data Analysis (QDA) Tool Demo

Grad Success Week 2023

Jean Gomes, MA, MEd.
Office of Institutional Analysis

May 2, 2023

Learning Outcomes from this Session

- Basic navigation of NVivo 12 Plus tool
- Basic features: importing data, coding, creating and managing nodes
- Basic ways to display results
- Places to go for help with NVivo

- Final Remarks and Some Helpful Resources

Outline

- About NVivo
- Lumivero NVivo website
- Downloading NVivo from UCalgary IT software distribution
- NVivo tool
- Importing a file, coding text, managing nodes
- Displaying results

About NVivo

- One of the top qualitative data analysis (QDA) software tools in the world

- Owned by QSR International (started in 1995 by Tom and Lyn Richards)

- Originated as NUD*IST
  - Non numerical Unstructured Data Indexing Searching and Theorizing software created by Tom Richards in early 1980s. Tom is a computer scientist and Lyn is a sociologist, La Trobe University, Australia.
  - Becomes NVivo in 1999 (Tom Richards and Lynn Richards, early 1990s)

- Can import text, audio, video, emails, images, spreadsheets, online surveys, web content and social media from various sources

- e.g., Word, Excel, PDF, recorded interviews, etc.

- Caution: Mac users may find NVivo works in slightly different ways, and there may be some limitations.
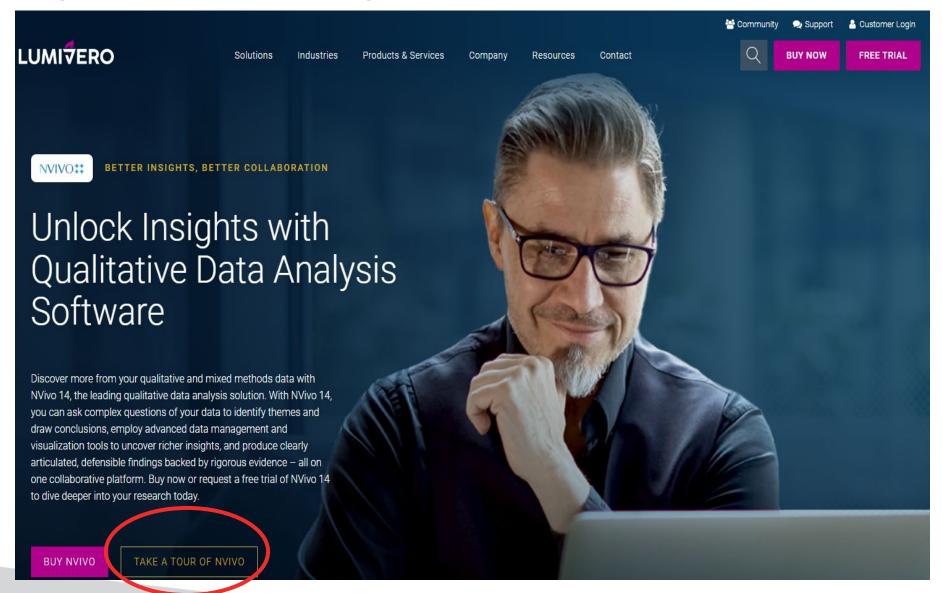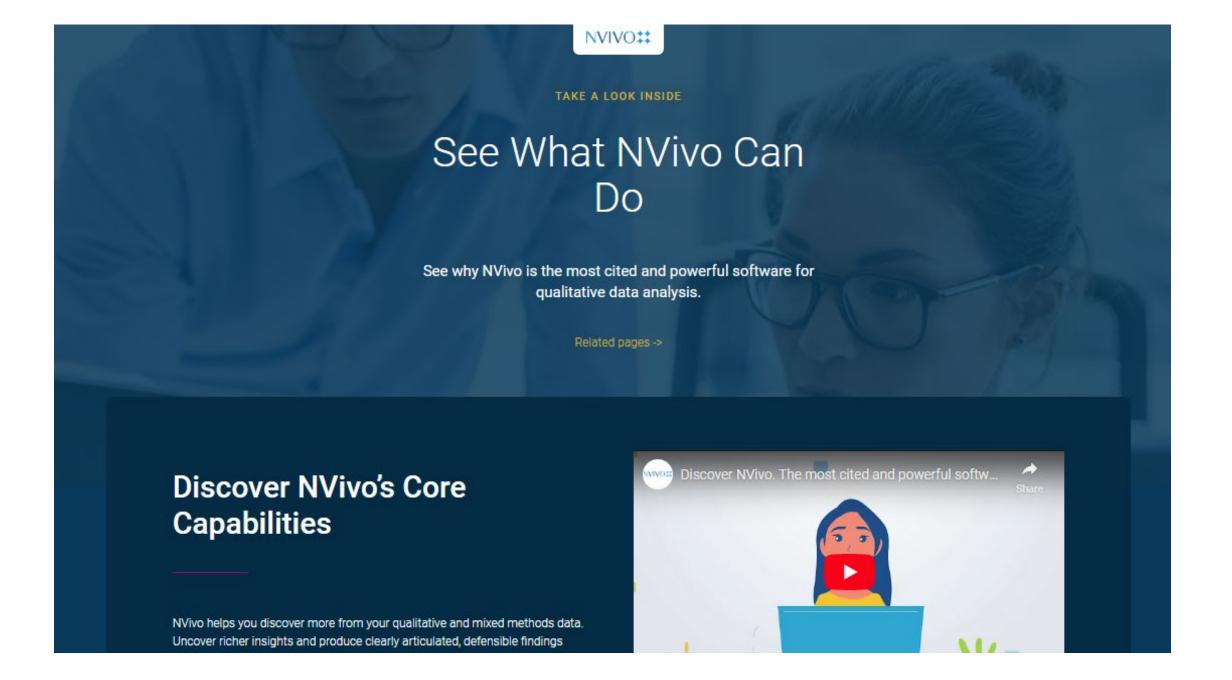
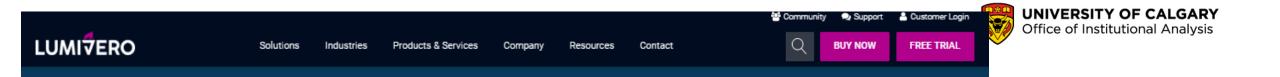- October 2022: QSR International, Palisade and Addinsoft partner to create Lumivero

- NVivo Academy offers a certificate program. Don't know if this is still offered under Lumivero.
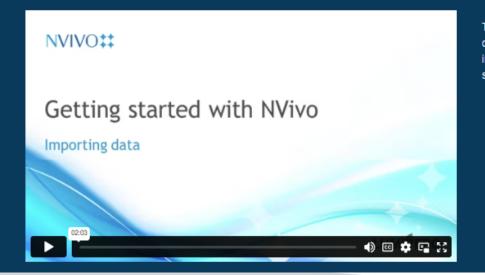
https://lumivero.com/products/nvivo/

See What NVivo Can Do

See why NVivo is the most cited and powerful software for qualitative data analysis.

Related pages ->

Discover NVivo's Core Capabilities

NVivo helps you discover more from your qualitative and mixed methods data. Uncover richer insights and produce clearly articulated, defensible findings

Discover NVivo. The most cited and powerful softw...

Share

Download NVivo from IT Software Distribution Site

- The University of Calgary has an enterprise licence for NVivo.
  - Currently, is NVivo 12. NVivo 14 will be available soon.
- It is free for students, staff and faculty.
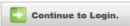- You can download it from the IT Software Download site.

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Software Distribution

University Software Distribution

Please read this document as it has important information regarding eligibility of software licensed to the University of Calgary.
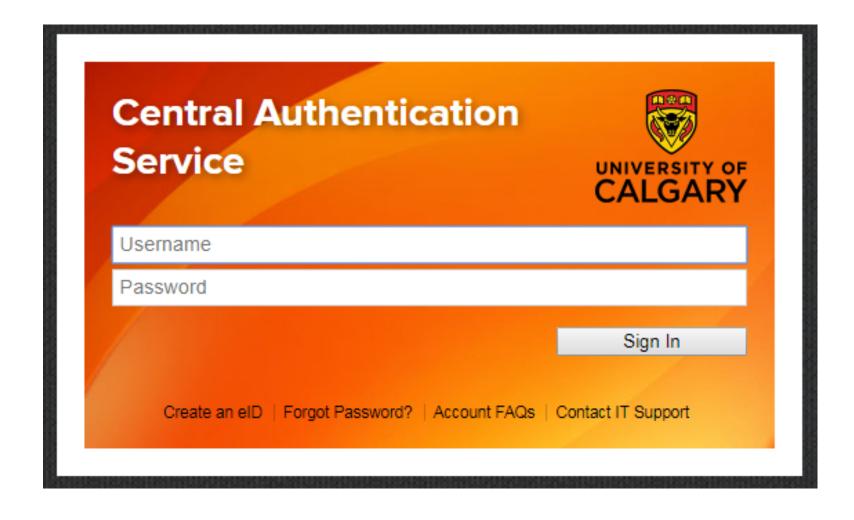
Faculty, Staff & Students are eligible to request software based on your user classification. Each software product will have different accessibility based on the terms of the Vendor's license agreement.

Steps for Requesting and downloading software

1. **You must authenticate to the site with your IT Username** (i.e. dcherry, NOT, dcherry@ucalgary.ca or NOT your eID which may be different from your IT Username).

2. When you **Select** the software:

   - If you see a link to **Request License**, you are **eligible** to get a license to use the software.

   - If you see a link to **Send Request***, user classification defines you as being not eligible for requesting the software. You can send a message to itsoftware@ucalgary.ca to inquire about getting the software.

3. Software is either Automatically Approved or Pending Approval.

   - If the software is automatically **Approved** you will be presented with a **Download** link. You can download software right away or sign back in later to download.

   - If the software is **Pending approval**, you will receive an Email saying the request is submitted and another Email when it is approved instructing you to sign in to download the software.

4. **Downloading the software**. The software can be distributed in a number of different downloadable formats. **It is important to download and Read the Read_Me file** as it will contain instruction on the files required and the installation instructions. Some software packages consist of a number of large files. Please ensure that you have some time set aside for this process as some software installations do take longer than others.

Continue to Login.

There are two different editions of NVivo.
Difference between NVivo 12 Pro and Plus.
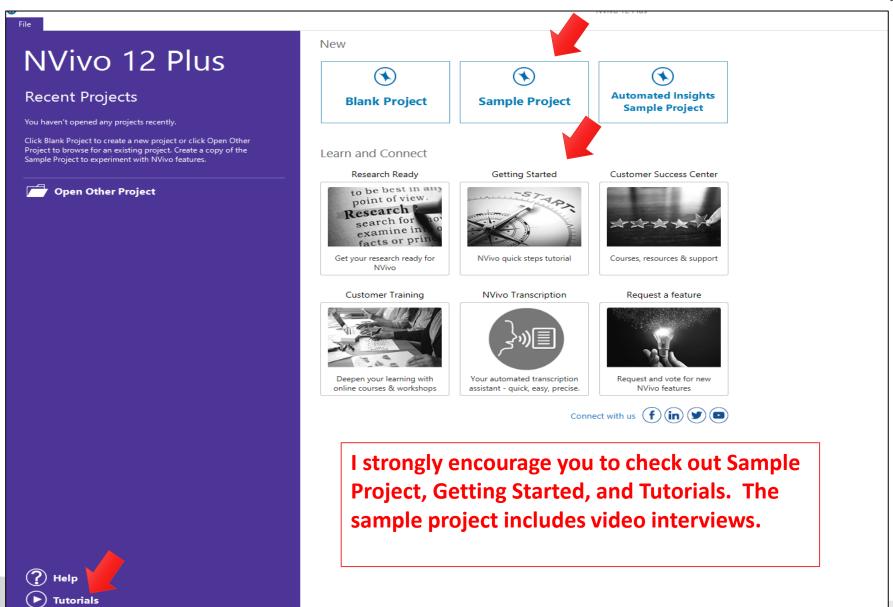
NVivo 12 Pro
- Integrates with reference management tools (e.g. EndNote, RefWorks, Zotero)
- Supports multi-media files
- Analyse all forms of unstructured data
- Text, audio, video, images, spreadsheets
- Querying, matrix coding queries (for making comparisons)
- NCapture to capture social media content

NVivo 12 Plus
- All of NVivo 12 Pro functions
- Additional and more powerful features supporting analysis
- Automatically identify themes and sentiments
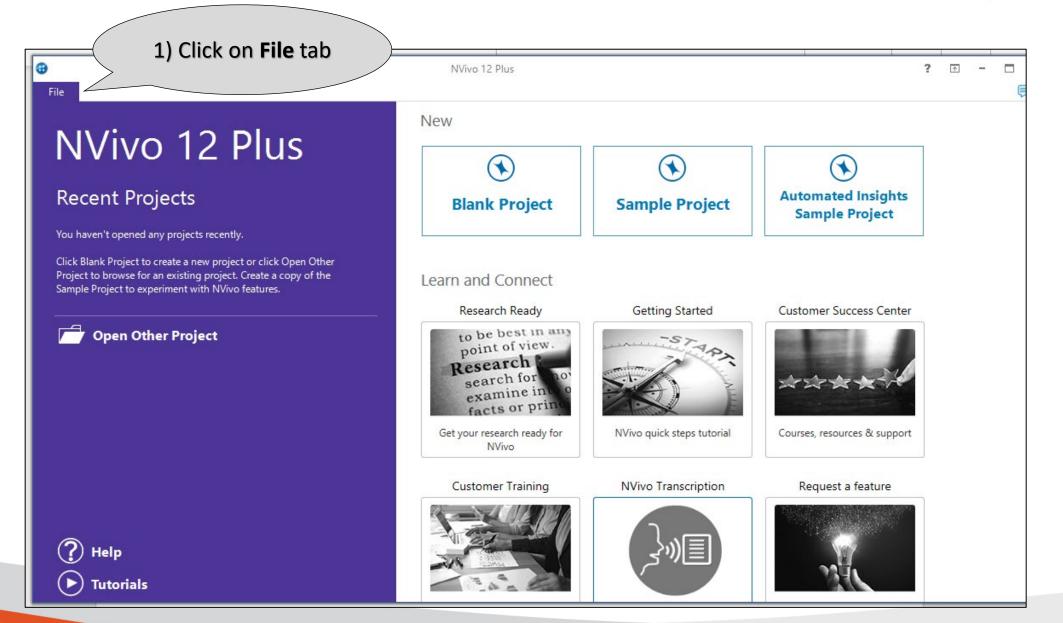- Automatically create social network visualizations from social media data
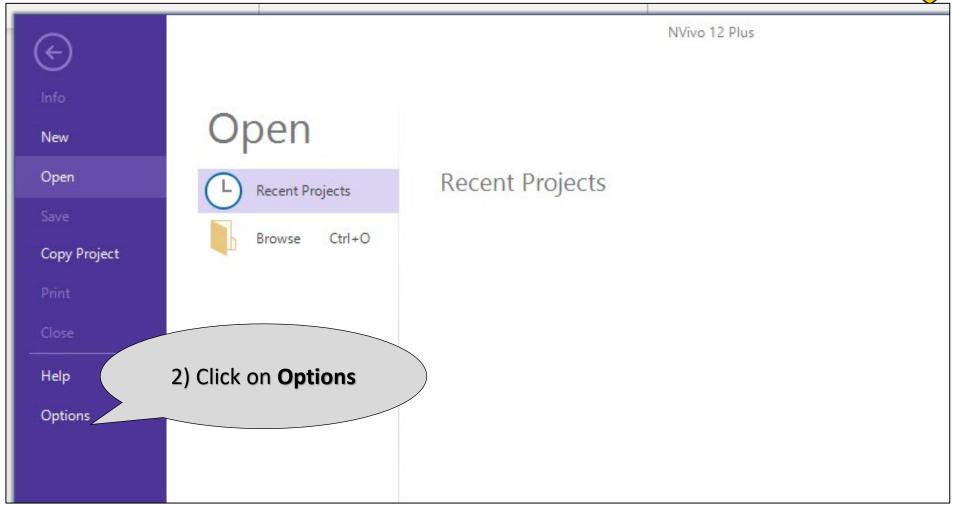
This is what you see when you open NVivo

I strongly encourage you to check out Sample Project, Getting Started, and Tutorials. The sample project includes video interviews.

15

You can switch between Pro and Plus editions.
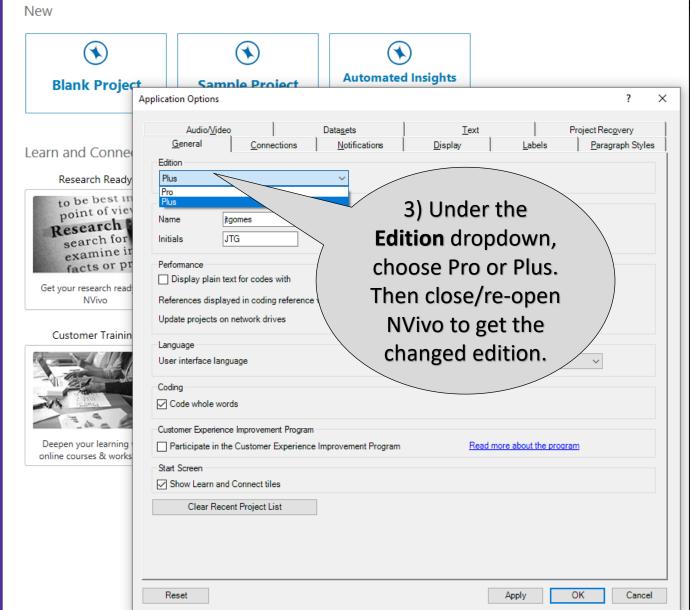
1) Click on **File** tab

3) Under the **Edition** dropdown, choose Pro or Plus. Then close/re-open NVivo to get the changed edition.

Assumption – before you start:

You have set up your research project properly.

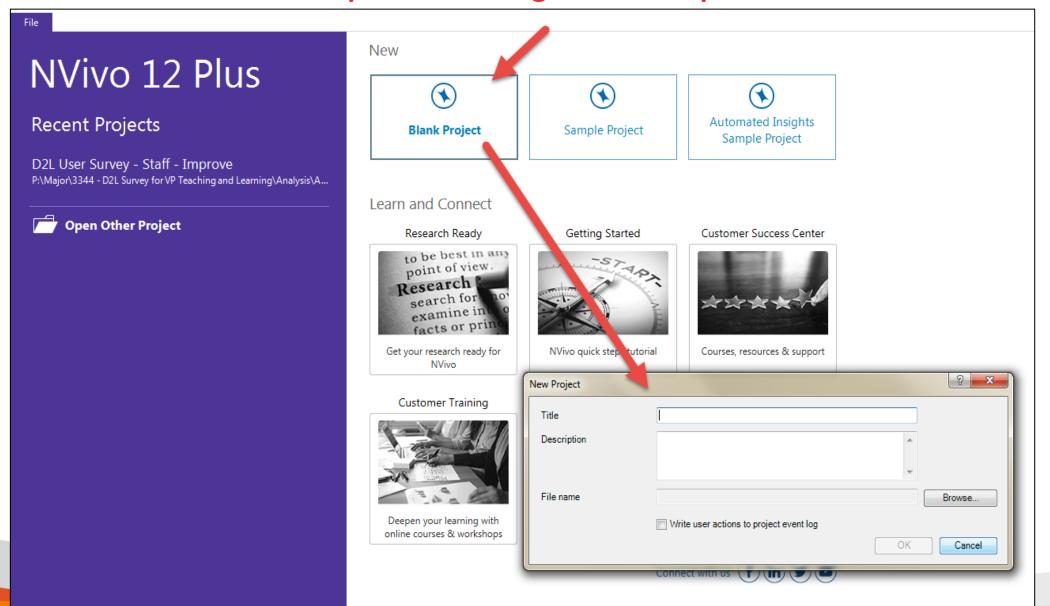Do this before you even start thinking about using NVivo, or any other QDA tool.

A design framework will help you: (check out: NVivo training materials)

- What are the **types of data** you will be analysing – interviews, news articles, etc.
- What are the **units of analysis** – person, place, etc.
- What are the **variables** – NVivo's attributes – gender, population, etc. What variables are you comparing?
- What is the study's **time frame** – e.g., longitudinal
- What are some **big themes**? – identify broad/general topic areas you will want for coding (e.g., "community")
- **This will help you estimate how much coding you will need to do.**
- **The effort you put to this part will cut down on coding errors later.**
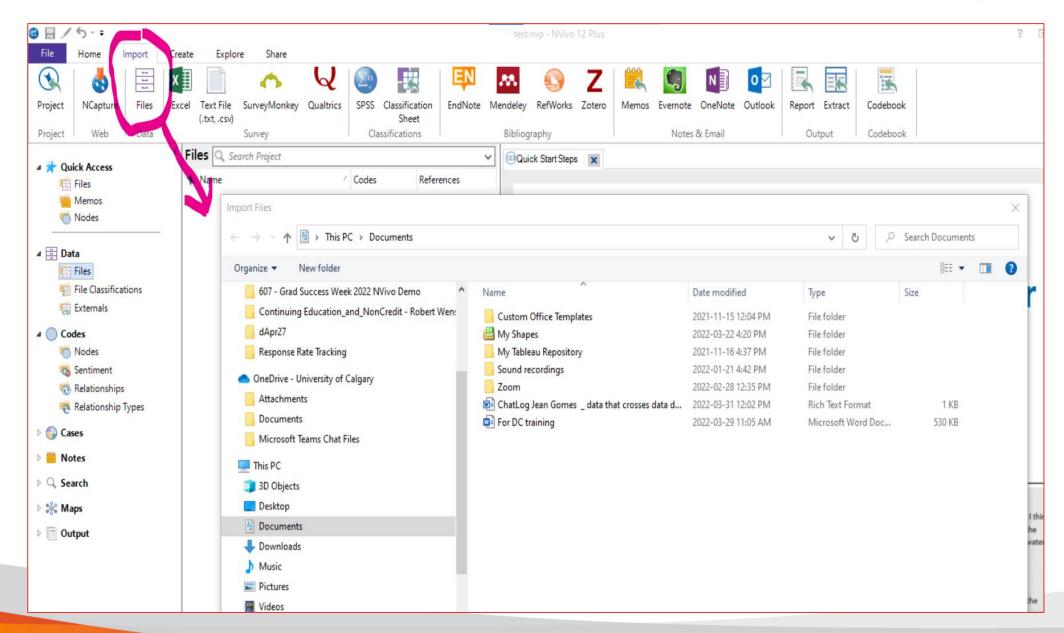
You can open a Blank Project. Then fill in New Project window to create a new file. OR open an existing file. OR import a file.
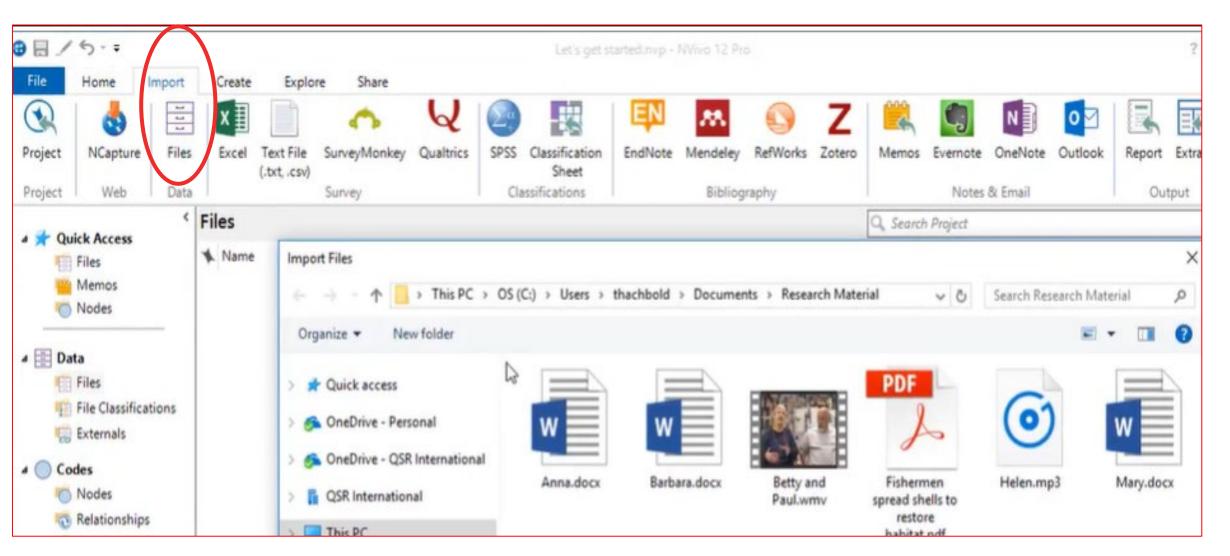
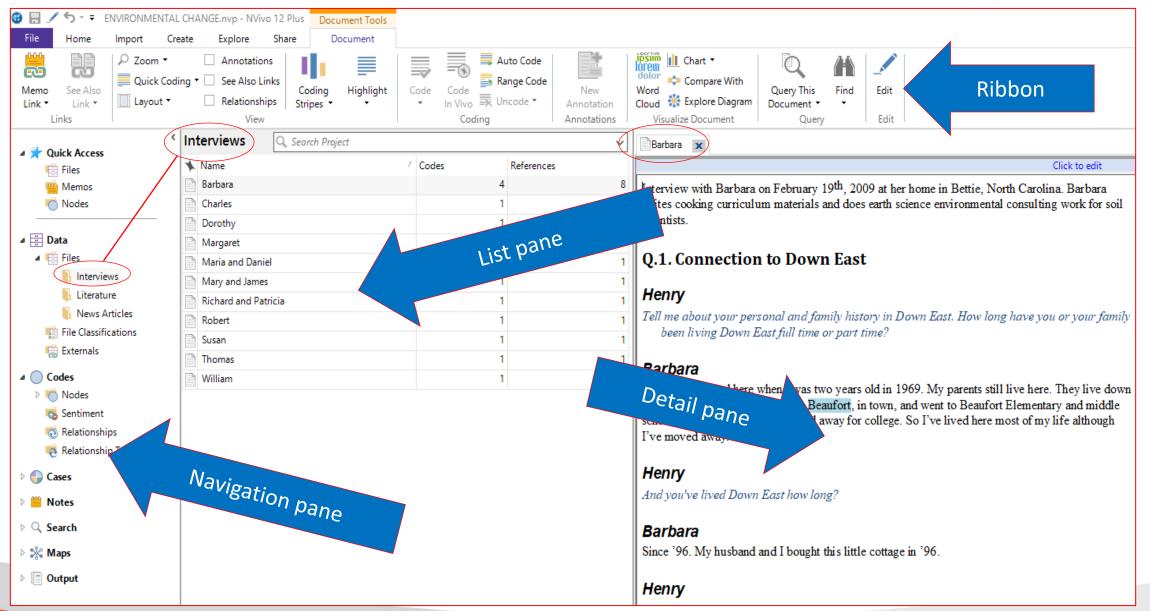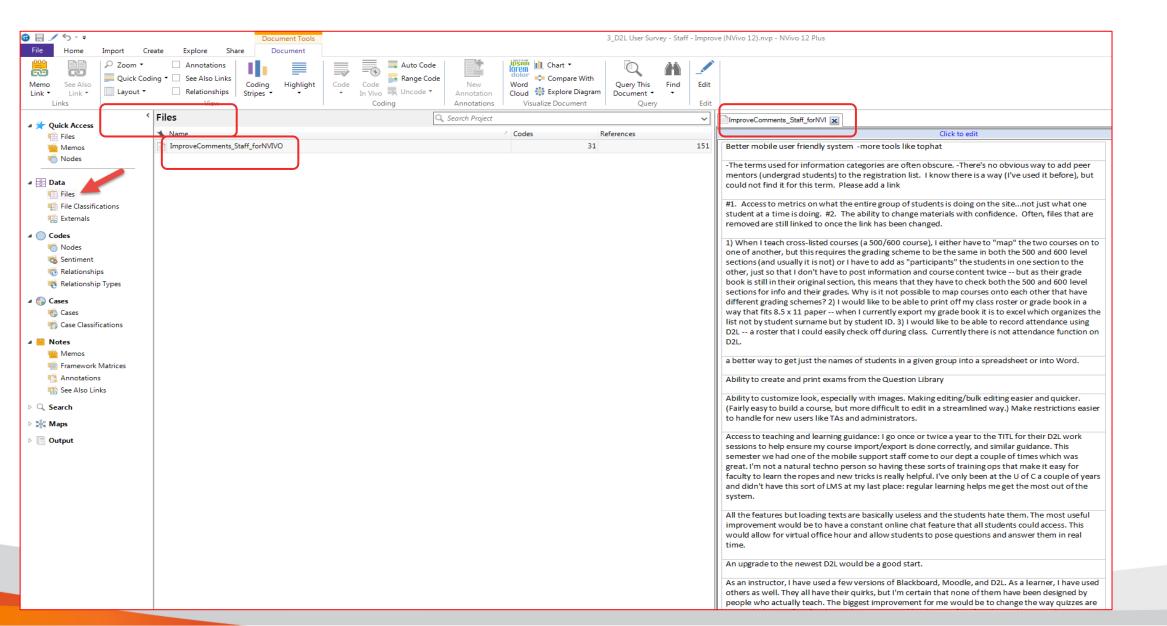# Importing a file, coding text, managing nodes

NVivo workspace basically comprised of four panes.

Data >> Files …Displays your text in the detail pane (right-side panel). Create folders to store your interviews, news articles, etc.

Nodes are like themes or bins

- "A node is like a container for qualitative data (themes, or concepts). It is a way to tag your data and sources in order to find and analyze trends or patterns. When you code information at a node it may appear that you are moving your data from its original source, but really you are simply adding tags to the source." (source: Columbia University Libraries: http://library.columbia.edu/locations/dssc/nvivo_guide/nvivo_terminology.html#d_child_node)
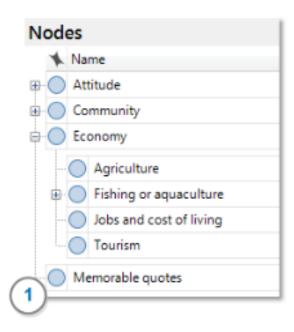
- Create and delete
- Move and copy
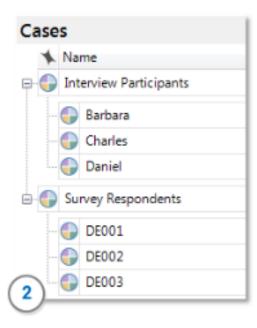- Rename
- You can code one comment to many nodes

See coding techniques in NVivo ….https://help-nv.qsrinternational.com/12/win/v12.1.99-d3ea61/Content/coding/coding-techniques.htm

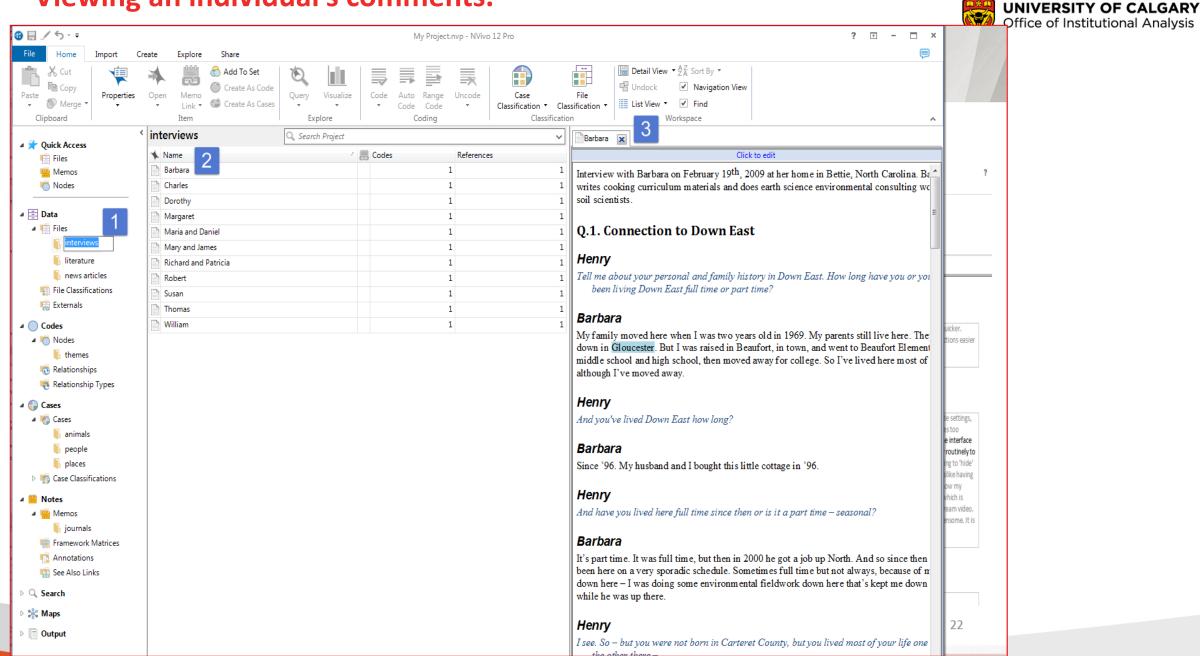**I am focusing only on theme nodes in this presentation.**

Theme nodes and case nodes

You can create different types of nodes in your NVivo project to represent the themes and cases in your data.

Nodes

	Name
⊞ ○	Attitude
⊞ ○	Community
⊟ ○	Economy
○	Agriculture
⊞ ○	Fishing or aquaculture
○	Jobs and cost of living
○	Tourism
○	Memorable quotes

①

Cases

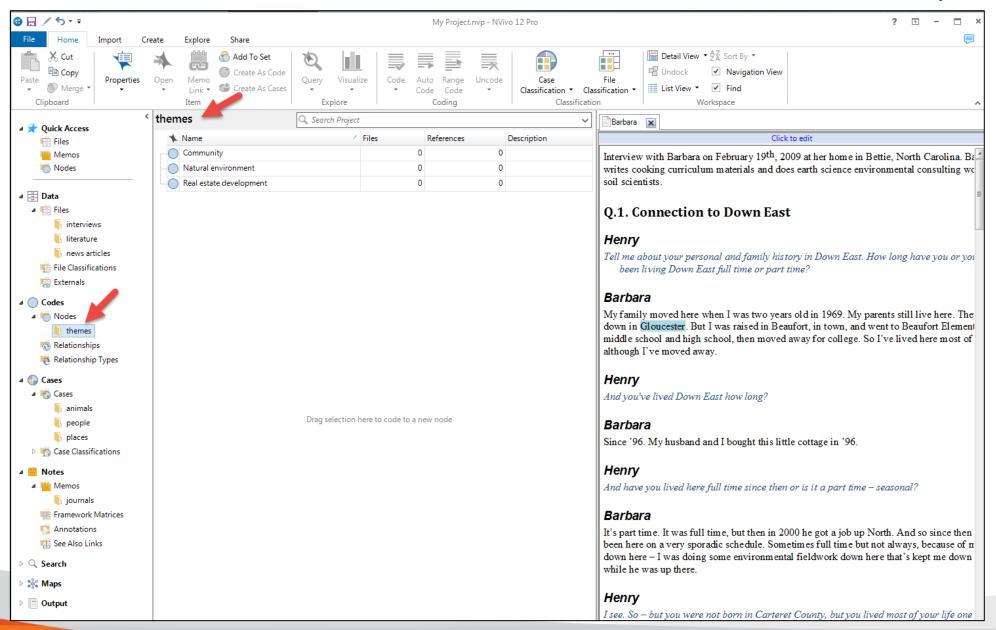|	Name
⊟	Interview Participants
	Barbara
	Charles
	Daniel
⊟	Survey Respondents
	DE001
	DE002
	DE003

②

1 Theme nodes represent the topics found in your files. These nodes might be descriptive (*this text is about that topic*) or more analytical (*this issue matters because...*).

2 Case nodes represent your 'units of observation'—which might include people, places, sites or organizations. You can use case classifications to record information about your cases.
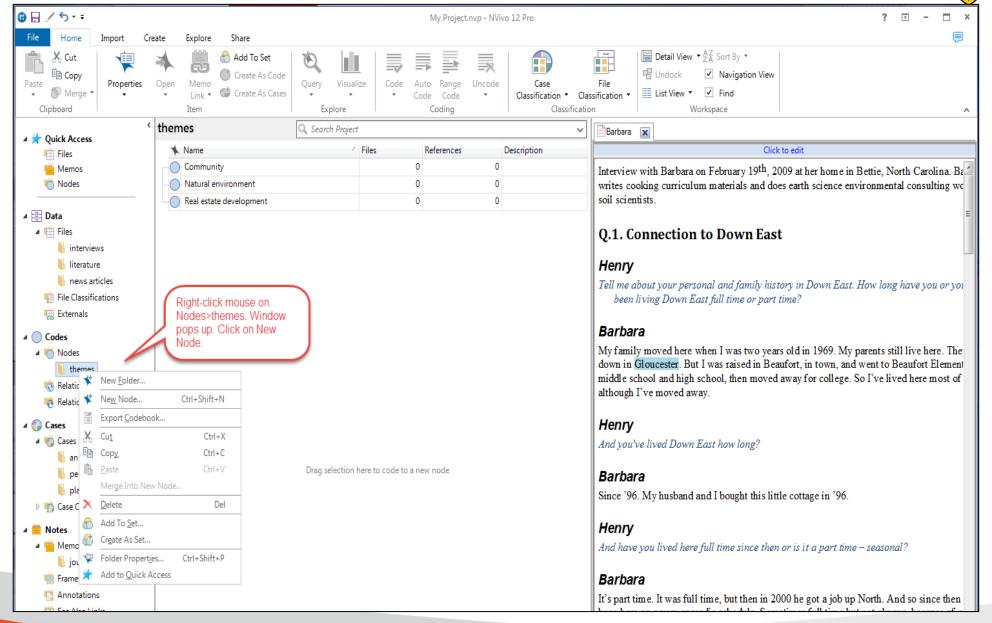
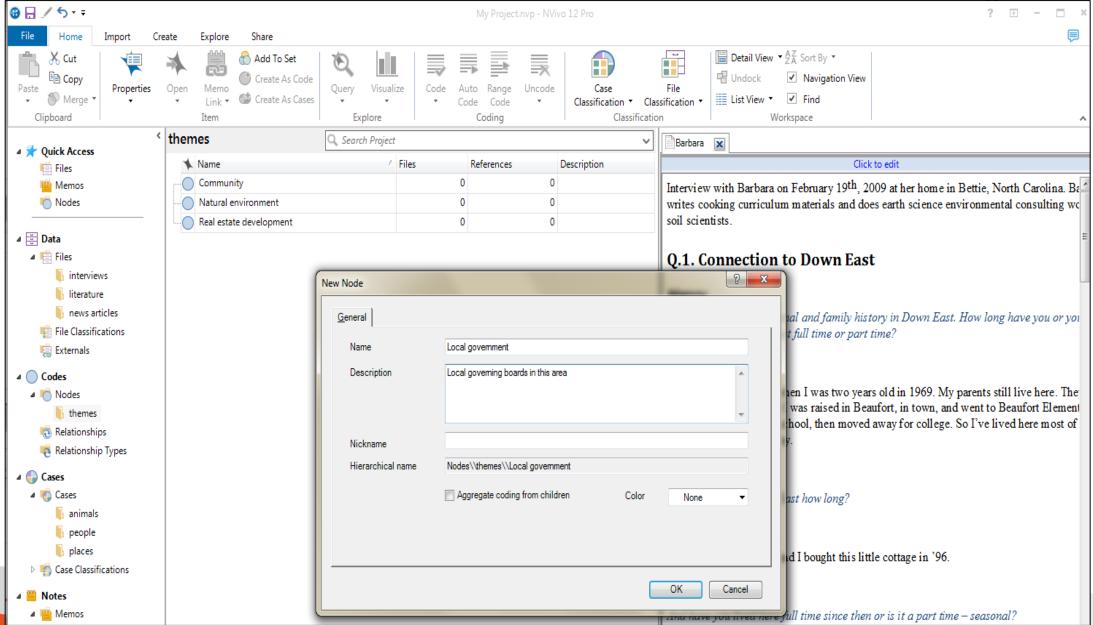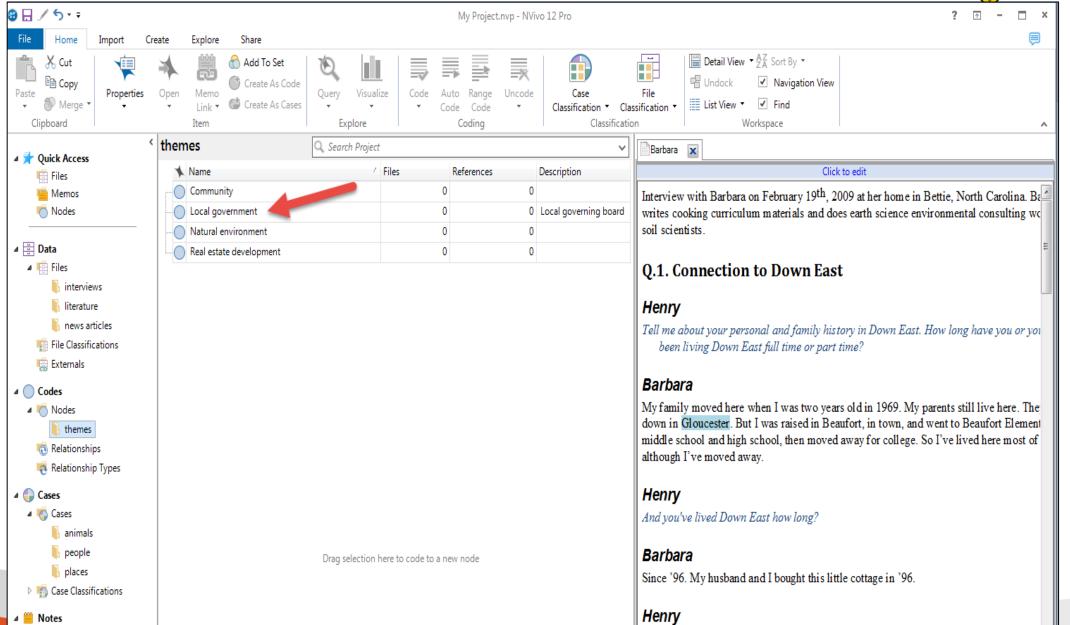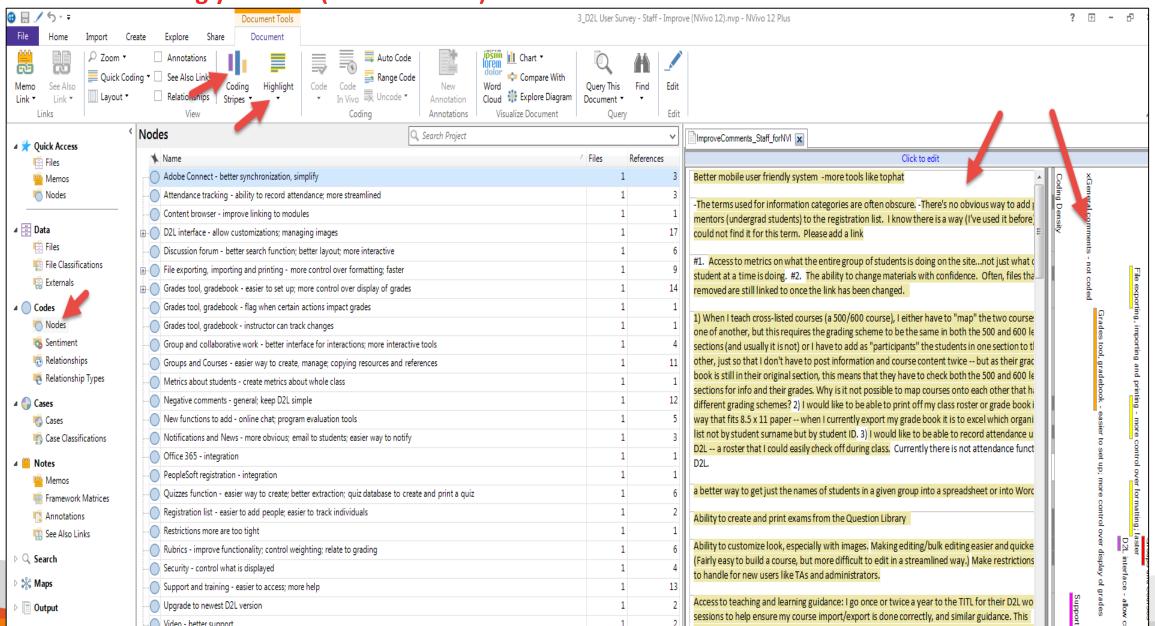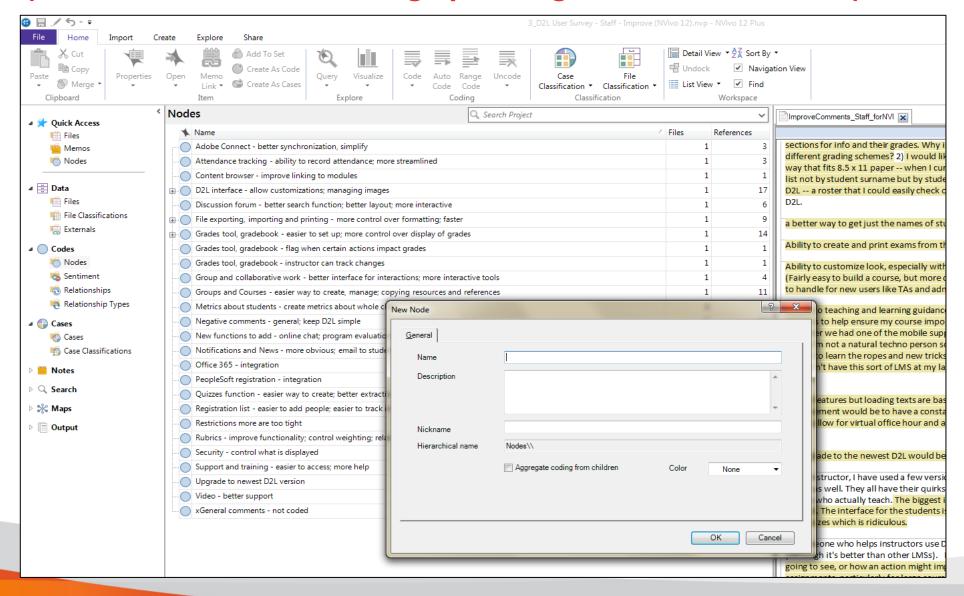# Viewing an individual's comments.

Creating new themes in Nodes.

Turn on Coding Stripes and Highlight. These are great visual aids. Click on Nodes. Create your nodes. Continue coding your text (see next slide).
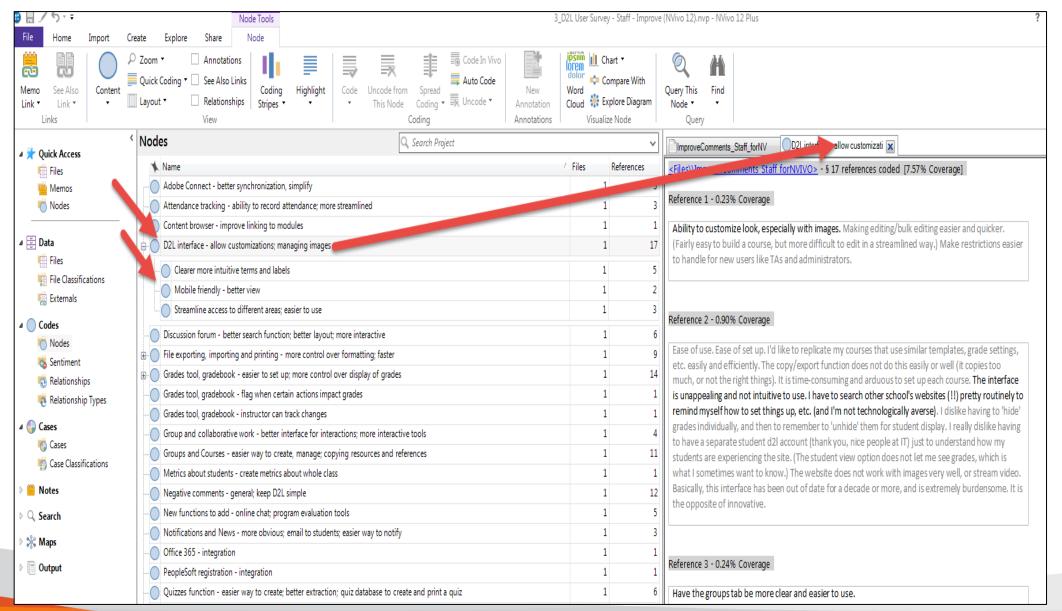
Keep creating nodes as you read. Highlight text drag/drop into Nodes.
Coding strips and highlights will show your work.
(NVivo does sentiment coding by looking at words in isolation.)

You can create subnodes (child nodes).
Click on a node and a detail pane opens showing all comments coded to that node.

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Some best practices about nodes

- Remember: nodes are bins that hold themes

- Do continual housekeeping; decluttering; re-arranging

- Review your nodes after you've created about 20 of them

- Keep similar nodes together ("like with like")
  - never duplicate a node

- Usually, you would have about 10 top level nodes at most
  - 3 levels deep at most (subnodes)

This handout
will be available
to you along
with today's
demo.

Perfecting The Art Of Qualitative Coding

Written by Philip Adu
January 31, 2016
Dr. Philip Adu is a Methodology Expert at the National Center for Academic & Dissertation Excellence (NCADE) in The Chicago School of Professional Psychology (TCSPP). In this post, he takes us through the stages of qualitative coding and, along the way, outlines the features he finds most useful.
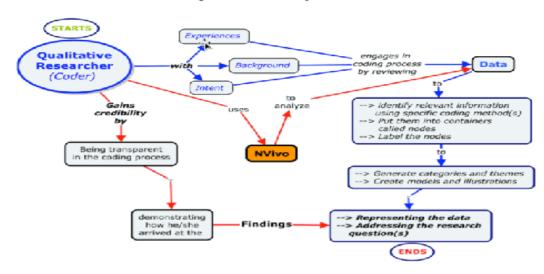
Think about analyzing interview transcripts: capturing significant information from the data and putting them into 'containers', called codes (in NVivo).

What about labeling each code created, providing a brief description about each of the codes, and documenting your reflections?

You then sort the codes into 'big containers' called parent codes based on their content similarities and unique relationships.

Lastly, you use the parent codes (i.e. themes) to address the research question(s). Here's an illustration of the high-level process:

Qualitative Analysis Process

1

Build an efficient node hierarchy

Take time out from coding to reflect on your nodes and organize the themes that are emerging. <mark>**Reasons for keeping your nodes organized include:**</mark>

- Being able to find your nodes easily saves time during the coding process.

- If you have trouble finding a node, you are less likely to use it consistently.

- You are more likely to lose or confuse ideas in an unwieldy node structure.

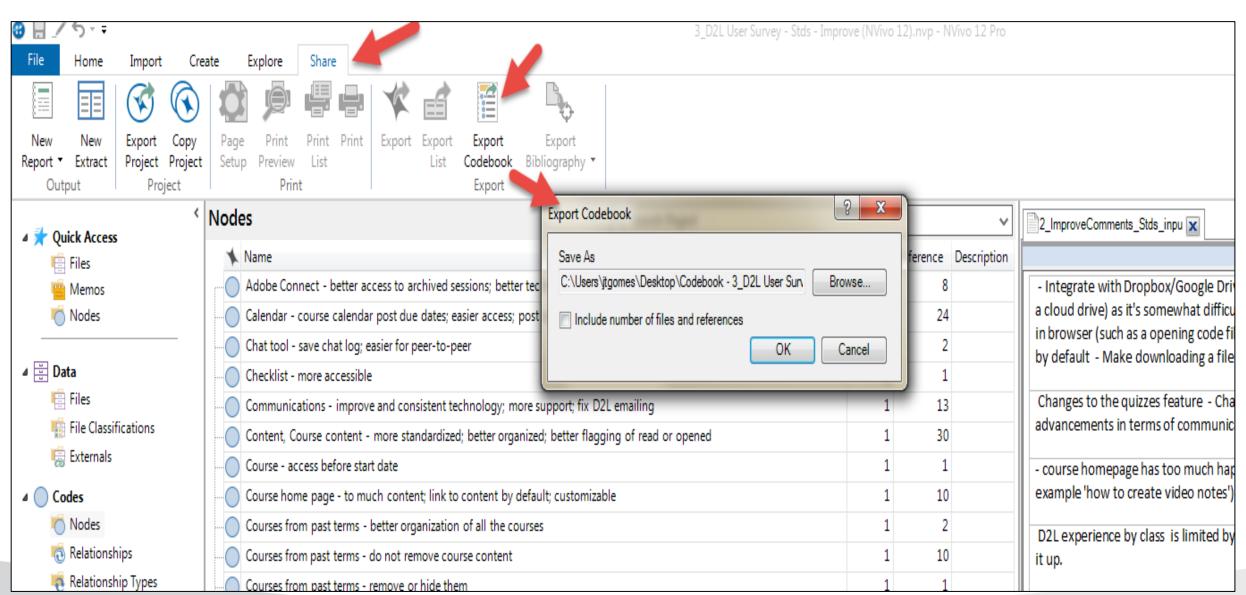**Here are some strategies for building an efficient node structure:**

- Keep node names short and pertinent.

- Make sure a node only appears once in the whole hierarchy.

- Try not to combine concepts in a node. For example, instead of coding some text at *skeptical attitudes about government policy,* code it to both of these nodes:

    - skeptical attitudes

    - government policy

Remember that you can use queries to gather your coded content in all sorts of combinations—for example, find all content coded at the node *skeptical attitudes* AND at the node *government policy*.

- Try not to force nodes into a hierarchy—if a node is not related to any other concept then leave it at the top level.

- Try not to nest more than 3 levels deep if you can help it.

- Make a node to gather 'great quotes'.

- Prune your nodes regularly. Merge, reorganize, rename.

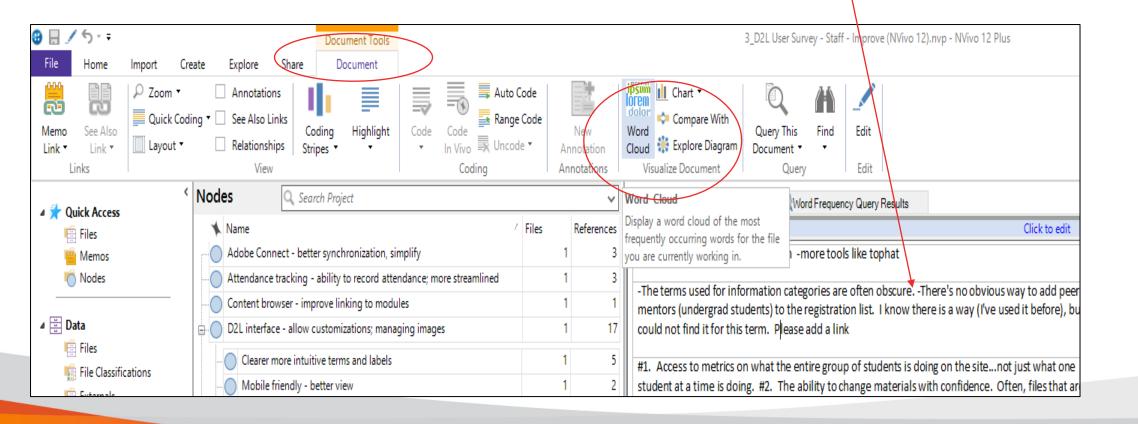# Create a nodes Codebook to list your nodes and descriptions

My Project

Nodes

Name	Description
Adobe Connect - better access to archived sessions; better technology; reliable audio	
Calendar - course calendar post due dates; easier access; post other appointments	
Chat tool - save chat log; easier for peer-to-peer	
Checklist - more accessible	

The codebook is useful if you have included descriptions of your nodes when you created them. Otherwise, this is just blank.
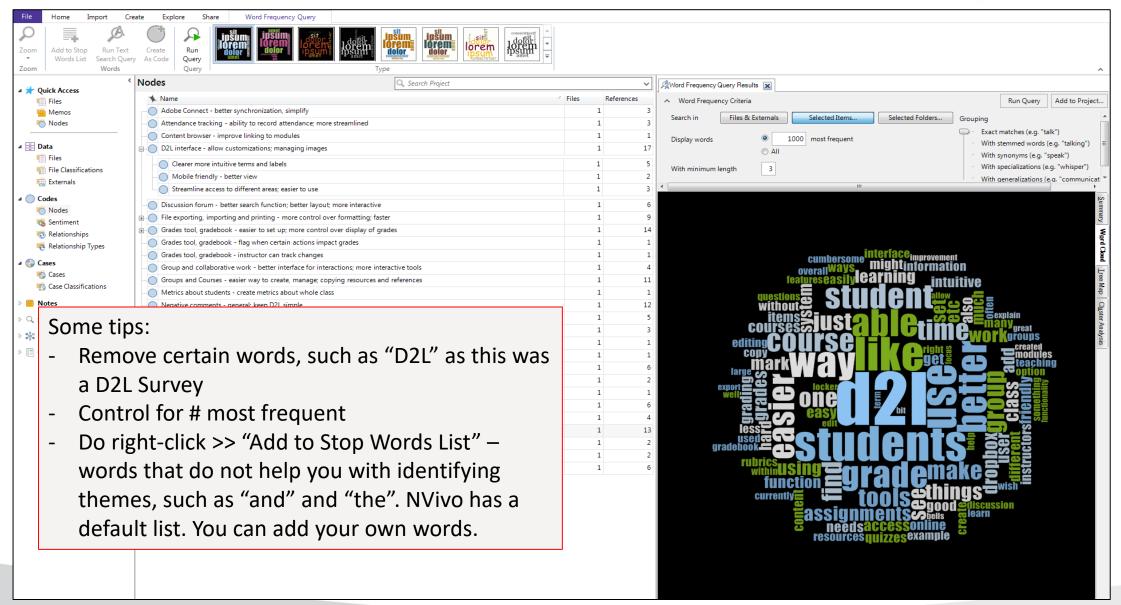
Displaying Results

First, click inside the detail pane. The ribbon will display **Document Tools**. Let's choose Word Cloud.
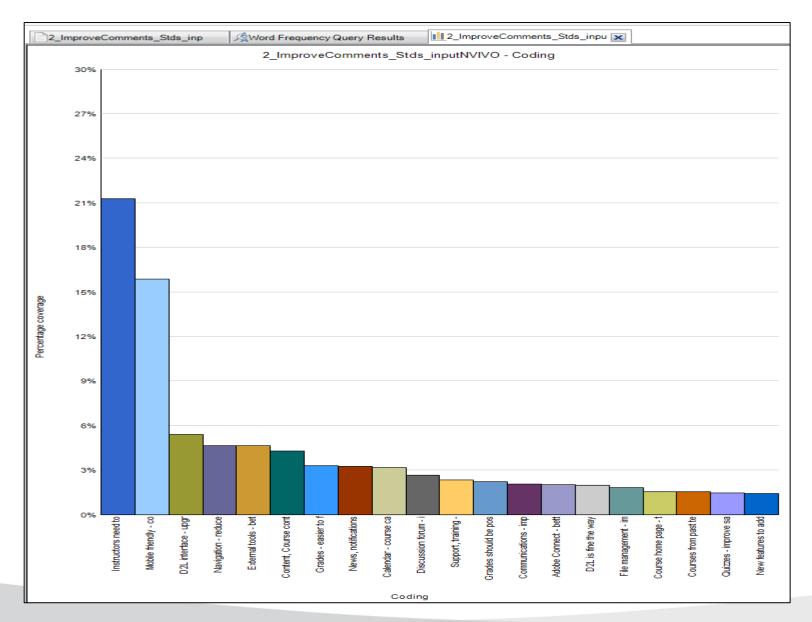
Word Cloud

Some tips:
- Remove certain words, such as "D2L" as this was a D2L Survey
- Control for # most frequent
- Do right-click >> "Add to Stop Words List" – words that do not help you with identifying themes, such as "and" and "the". NVivo has a default list. You can add your own words.

Tree Map – size of rectangle represents # coding references

Bar Graph

Some Helpful Resources

- Use the webinars/tutorials in NVivo website and NVivo tool.

- Google/You Tube videos – be careful, the information may be dated

- **Dr. Paul Pival**, ppival@ucalgary.ca, Research Librarian – Data Analytics'
     Economics Liaison Librarian
  - Paul has great expertise in using NVivo. He assists students and researchers.
  - https://libguides.ucalgary.ca/guides/nvivo

- Handout: Perfecting the Art of Qualitative Coding – by Philip Adu

- **International Institute for Qualitative Methodology**, based in Univ of Alberta, https://www.ualberta.ca/international-institute-for-qualitative-methodology/index.html

- Using NVivo in Qualitative Research - by Lyn Richards
- Bazeley, Pat and Jackson, Kristi (2013). Qualitative Data Analysis with NVivo, Sage Publications
- Silver, Christina and Lewins, Ann (2014). Using Software in Qualitative Research: A Step by Step Guide, Sage Publications

Thank you for attending this session about NVivo!