Welcome to the Research Commons!

• Workshops and One-on-one Consultations
  – Thesis Formatting
  – Citation Management
  – SPSS
  – NVivo

• Literature Reviews (Part 1 and 2)
• Graduate Student Writing Community
• Mapping and GIS Workshops

Check the Website for more
Learning Objectives

By the end of this session,

• You will be able to import sources
• Create memos
• Run basic queries
• And code data into nodes

in **NVIVO**
Outline

• What is NVivo?
  – And for what should I use it?

• How does it work?
  – Files
    – Queries, nodes, and coding

• Evaluation
What is NVivo?

NVivo is computer-assisted qualitative data analysis software (CAQDAS)

“that helps you easily organize and analyze unstructured information, so that you can ultimately make better decisions”

Source: QSR International

...and/or achieve better research outcomes!
Organizing Qualitative Data

From this......

To this:
## Stages of a research project in NVivo

<table>
<thead>
<tr>
<th>Stage</th>
<th>Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature Review</td>
<td>Inputting sources (PDFs, Word docs, books, ...)</td>
</tr>
<tr>
<td></td>
<td>Assigning source attributes</td>
</tr>
<tr>
<td></td>
<td>Creating memos and links</td>
</tr>
<tr>
<td></td>
<td>Finding relationships and themes (coding into nodes)</td>
</tr>
<tr>
<td>Research Design</td>
<td>Rearranging nodes</td>
</tr>
<tr>
<td></td>
<td>Creating models</td>
</tr>
<tr>
<td></td>
<td>Inputting sources (ethical approval, questionnaires, ...)</td>
</tr>
<tr>
<td>Data collection and</td>
<td>Inputting sources (transcripts, focus groups, ...)</td>
</tr>
<tr>
<td>and analysis</td>
<td>Creating units of analysis or case nodes (participants)</td>
</tr>
<tr>
<td></td>
<td>Assigning attributes (e.g. demographic info of your participants)</td>
</tr>
<tr>
<td></td>
<td>Finding relationships and themes (coding into nodes, queries)</td>
</tr>
<tr>
<td></td>
<td>Asking questions to your data (using queries)</td>
</tr>
<tr>
<td>Conclusion/</td>
<td>Using models</td>
</tr>
<tr>
<td>Writing up</td>
<td>Accessing info stored in nodes and queries</td>
</tr>
<tr>
<td></td>
<td>Relating literature review analysis and data analysis</td>
</tr>
</tbody>
</table>
How do I approach my research project?

**Diagram:**
- **Import**: Bring in interview documents.
- **Memo**: Record your insights and use this memo when you write up your project.
- **Visualize**: Display a word tree to see how people talk about 'balance'.
- **Reflect**: Gather the query results in your 'balance' node and review all the material in one place.
- **Explore**: Open and explore the interviews.
- **Code**: Some participants talk about 'balance' - this is interesting! Make a node to collect all the references.
- **Query**: Do other people talk about 'balance' too? Run a Text Search query to find out.
Benefits

- Analyzing video interviews, survey results and social media conversations
- Experimenting with different analytical techniques
- Looking for visual ways to brainstorm, explore and present data
- Working in a team to deliver robust and transparent findings
Built-in transcription capabilities

Audio or Video file → Transcribe in NVivo → Text
Cautions

• NVivo can’t tell you what to look at/analyze!
• PC and Mac are becoming more similar, but PC still has more features than Mac version
• Proprietary software (if you’re thinking about the future)
Getting NVivo

• UBC Library has NVivo on its computers (Room 217 and 218)

• From Nov. 21, 2016, NVivo is available to UBC students, faculty and staff
  Instructions: https://it.ubc.ca/services/desktop-print-services/software-licensing/nvivo-pro-software

• 14-day free trial available to anyone at: http://www.qsrinternational.com/trial-nvivo
Task 1

- Open the N\vivo software
- From the UBC library (Research Commons/NVivo/Workshop Materials) download the sample files
- Open a new blank project: Give it a name and a description
General: Software screenshot
• Files
• File Classifications
• Externals
Files

- Supports file types
  - Audio (.mp3, .m4a, .wma, .wav)
  - Video (.MPEG, .mp4, .avi, .wmv, .mov, etc.)
  - Pictures (.bmp, .gif, .jpg, .png, .tiff)
  - Documents (.docx, .doc, .rtf, .txt)
  - Datasets (.xlsx, .xls, .txt, SurveyMonkey, Qualtricks)
  - PDFs (Smart PDFs are best, though!)
  - Information from websites/social media (via NCapture)
Externals

- Externals are ‘proxies’ for the material you cannot import into NVivo
  - Books
  - Physical artifacts

- Externals appear as documents with a content summary of the original source
Notes

- Memos
- Framework Matrices
- Annotations
- See Also Links
Memos

Memos are like documents and they can be linked to sources or nodes.

• Tell the story of your project
• Talk to yourself as you make sense of your data
• Track your analytical process
Task 2

- Import all the files from the sample data into different folders in your project
- Create and describe an external
- Write down a memo with what you have learned until now (and maybe include a question)
Basic tools

• Queries
  – Word frequency
  – Text search

• Nodes
  – Coding
What is a query?

✓ Find and analyze words or phrases in your sources, annotations and nodes

✓ Ask questions and find patterns based on your coding and check for coding consistency among team members

✓ Code and/or visualize the results

Source: QSR International
Word frequency queries

- Display words: 100 most frequent
- With minimum length: 4

<table>
<thead>
<tr>
<th>Word</th>
<th>Length</th>
<th>Count</th>
<th>Weighted Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>people</td>
<td>6</td>
<td>166</td>
<td>1.58</td>
</tr>
<tr>
<td>water</td>
<td>5</td>
<td>117</td>
<td>1.11</td>
</tr>
<tr>
<td>think</td>
<td>5</td>
<td>108</td>
<td>1.03</td>
</tr>
<tr>
<td>like</td>
<td>4</td>
<td>104</td>
<td>0.99</td>
</tr>
<tr>
<td>just</td>
<td>4</td>
<td>100</td>
<td>0.95</td>
</tr>
<tr>
<td>know</td>
<td>4</td>
<td>95</td>
<td>0.90</td>
</tr>
<tr>
<td>good</td>
<td>4</td>
<td>84</td>
<td>0.80</td>
</tr>
<tr>
<td>development</td>
<td>11</td>
<td>81</td>
<td>0.77</td>
</tr>
<tr>
<td>area</td>
<td>4</td>
<td>70</td>
<td>0.67</td>
</tr>
<tr>
<td>island</td>
<td>6</td>
<td>68</td>
<td>0.65</td>
</tr>
<tr>
<td>east</td>
<td>4</td>
<td>59</td>
<td>0.56</td>
</tr>
<tr>
<td>want</td>
<td>4</td>
<td>58</td>
<td>0.55</td>
</tr>
<tr>
<td>going</td>
<td>5</td>
<td>56</td>
<td>0.53</td>
</tr>
<tr>
<td>fish</td>
<td>4</td>
<td>54</td>
<td>0.51</td>
</tr>
</tbody>
</table>
Cluster Analysis
(Horizontal Dendrogram)
2D Cluster Map
3D Cluster Map
Text search queries

[Diagram showing a text search query interface with options for search criteria, search results, and references for each item.]
there, and it was the **natural** place for me to vacation

2. Connection to Down East **natural** environment

*Henry*

_in terms of_

Reference 3 - 0.06% Coverage

_of the environment or the **natural** environment or the landscape of_

Reference 4 - 0.06% Coverage

I love and there's a **natural** progression that others are gonna
2. Connection to Down East natural environment

Henry
What do you
Word tree
Nodes

A node is a collection of references about a specific theme, place, person or other area of interest.

Source: QSR International

You can have pre-set ideas of what your nodes should be, or see what emerges from your data.
## Nodes in NVivo

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Files</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>A person's general feeling</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Balance</td>
<td></td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>Community change</td>
<td>Change to the people</td>
<td>18</td>
<td>62</td>
</tr>
<tr>
<td>Economy</td>
<td>Text coded around issue</td>
<td>25</td>
<td>486</td>
</tr>
<tr>
<td>Agriculture</td>
<td></td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Fishing or aquaculture</td>
<td>Harvesting of wild seafood</td>
<td>19</td>
<td>367</td>
</tr>
<tr>
<td>Jobs and cost of living</td>
<td></td>
<td>16</td>
<td>86</td>
</tr>
<tr>
<td>Tourism</td>
<td></td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Infrastructure</td>
<td></td>
<td>11</td>
<td>43</td>
</tr>
<tr>
<td>Memorable quotes</td>
<td>This node is for quotes</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Natural environment</td>
<td>A collection of nodes around</td>
<td>24</td>
<td>324</td>
</tr>
<tr>
<td>Ecosystem services</td>
<td>Term refers to processes</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Environmental change</td>
<td></td>
<td>14</td>
<td>42</td>
</tr>
<tr>
<td>Environmental impacts</td>
<td></td>
<td>6</td>
<td>26</td>
</tr>
<tr>
<td>Habitat</td>
<td></td>
<td>17</td>
<td>43</td>
</tr>
<tr>
<td>Landscape</td>
<td></td>
<td>11</td>
<td>38</td>
</tr>
<tr>
<td>Renewable energy</td>
<td></td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Water quality</td>
<td></td>
<td>13</td>
<td>147</td>
</tr>
</tbody>
</table>
'Coding' your sources is a way of gathering all the references to a specific topic, theme, person or other entity. You can code all types of sources and bring the references together in a single 'node'.
Coding into a node

Document

Picture

Video

Node “x”

Source: QSR International
Task 3

- Run frequency queries
- Create a word cloud (explore some of the words inside)
- Save the query
- Run text search queries (based upon the frequency query)
- Create nodes from your research queries (parent and child nodes)
Wrap-Up

• Evaluation form: (Please complete!)

researchcommons.library.ubc.ca

Thanks for coming!