



Enabling quality qualitative data analysis with evidence through NVivo for interdisciplinary research (Part I)



Paula Hodgson

The Chinese University of Hong Kong

Center for learning enhancement and research



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Declaration

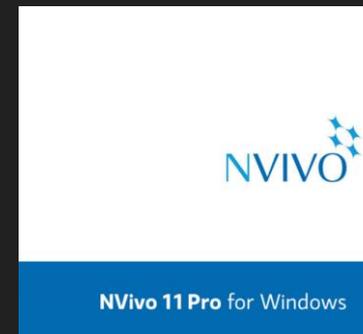
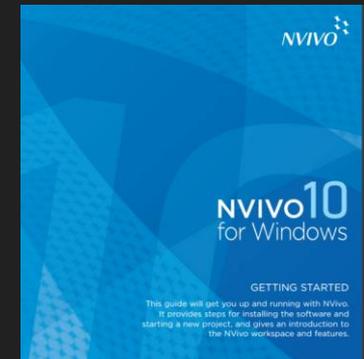
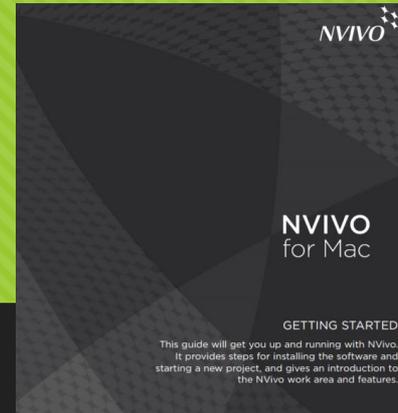
- User of NVivo [sharing experience but not promoting NVivo as the only tool for qualitative analysis]
- Some images with sources are extracted from Google search for educational purpose

Intended learning outcomes

The workshop is planned for you who are new to NVivo, a qualitative analytic software to acquire fundamental skill in various stages of conducting literature review, collecting data from various stakeholders, data processing and report writing of a research project. The software can process document in PDF, Word and Excel format if you consider to documenting literature (PDF), transcribing interviews (Word) and conducting survey (Excel). In the workshop, you will learn **how to do coding** first with no themes, how to link **related coding** as 'Tree' and 'Nodes' which will form parts of the **emerging themes** with the software.

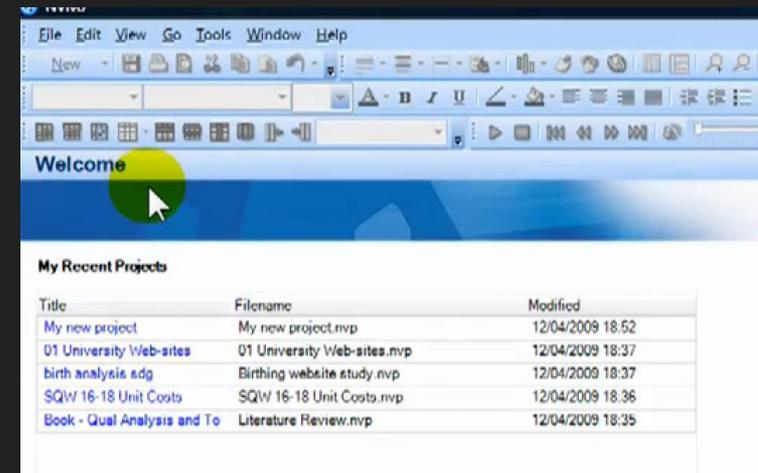
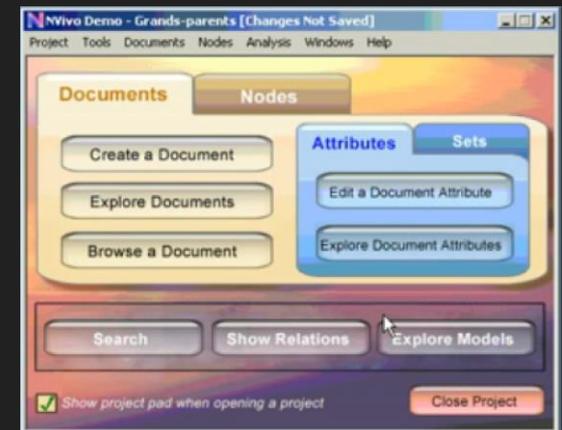
Agenda

- Conceptual understanding of qualitative research
- NVivo overview
- Illustration on some basic steps in Nvivo
 - Coding
 - Managing nodes
 - Making queries after coding
- Hands-on practice using NVivo for qualitative research



My experience

- Using Nudist / NVivo for my doctoral study – individual interviews with academics and staff developers from five institutions
 - Coding
 - Queries
 - Retrieving direct quotes as evidence in writing dissertation
- Using NVivo for one of my projects – focus group interviews with students (local and non-local students including mainland students and overseas students) from three institutions
 - Coding
 - Queries
 - Comparing cases



Your experience

1. Conduct interviews [one-to-one, focus group]
2. Transcribe interviews
3. Code interviewing scripts
4. Make annotations of interviewing scripts
5. Create a summary of interviews
6. Use software for qualitative research



Quantitative > Qualitative research methods

Quantitative research

- Hypotheses
- Quantifiable data
- Used for factor analysis, confirming factors, making generalization and prediction
- Significance testing

Qualitative research

- Case by case
- **Making inquiry (what, how & why)**
- Qualitative data from **a variety of sources and formats**
- Include field observation, interviews (individual / group)
- Narrative account; explanation; phenomena

Theories in use

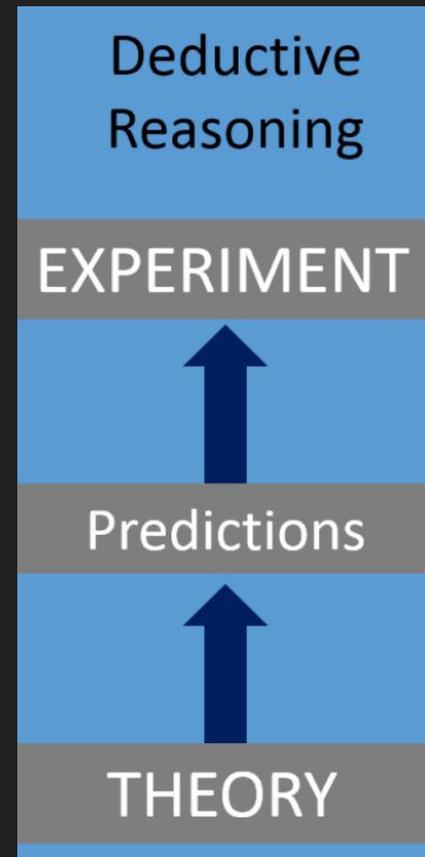
Comparison of Qualitative Analysis Approaches

	General Inductive Approach	Grounded Theory	Discourse Analysis	Phenomenology
Analytic strategies and questions	What are the core meanings evident in the text, relevant to evaluation or research objectives?	To generate or discover theory using open and axial coding and theoretical sampling	Concerned with talk and texts as social practices and their rhetorical or argumentative organization	Seeks to uncover the meaning that lives within experience and to convey felt understanding in words
Outcome of analysis	Themes or categories most relevant to research objectives identified	A theory that includes themes or categories	Multiple meanings of language and text identified and described	A description of lived experiences
Presentation of findings	Description of most important themes	Description of theory that includes core themes	Descriptive account of multiple meanings in text	A coherent story or narrative about the experience

Defined framework

Defined framework

- Working on established framework / theories
- RQs
- Methodologies
- Examining sets of data based on **deductive approach**
- Comparing current data with established theories



Conceptual framework: Example 1 (Blended learning on part-time degree program)

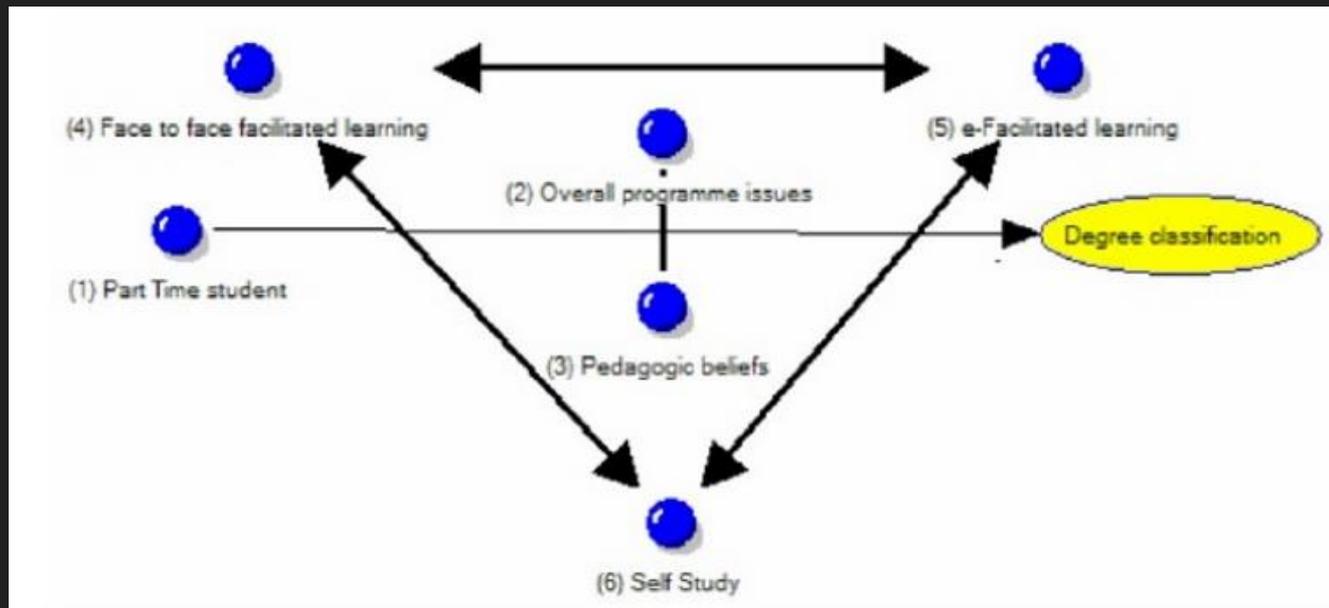
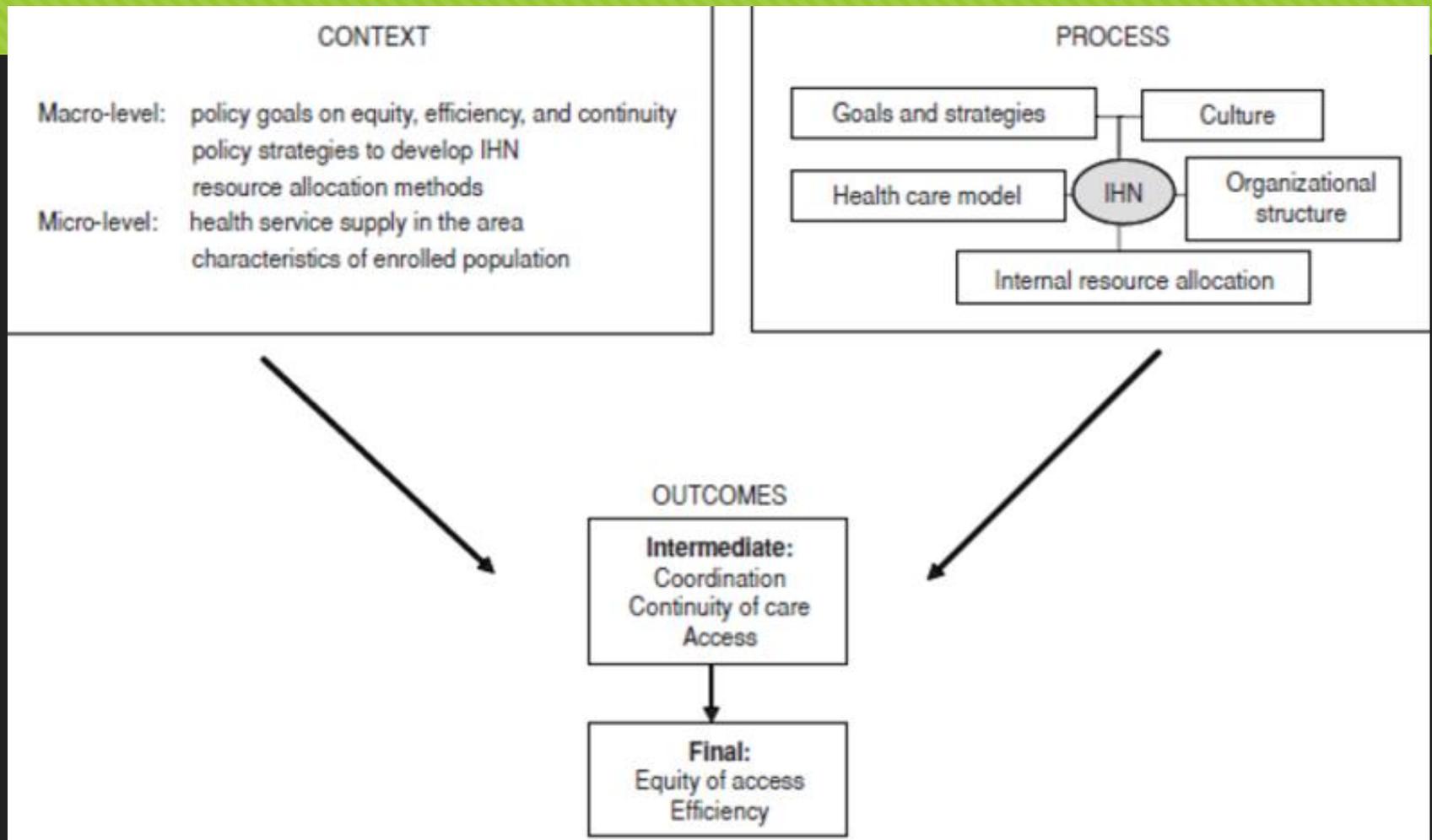


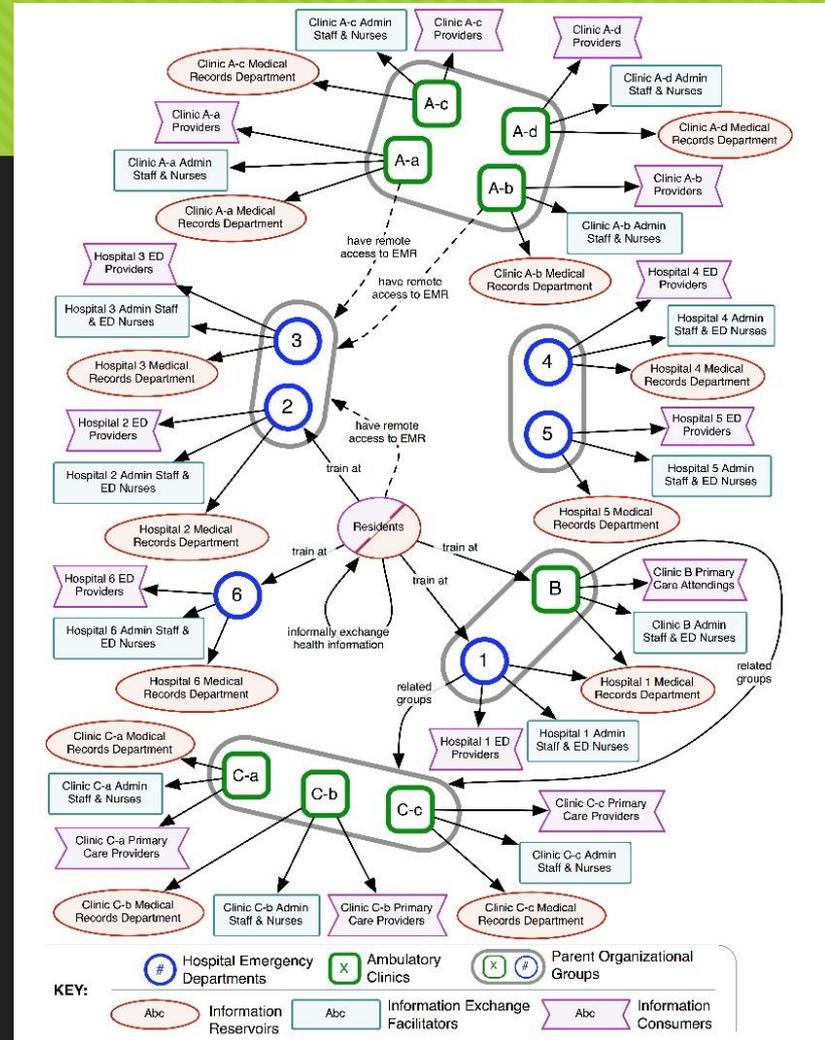
Image source: <http://image.slidesharecdn.com/nvivophdguidenov09v1-091130144353-phpapp01/95/nvivo-use-for-phd-study-18-728.jpg?cb=1259592252>

Conceptual framework: Example 2 (Analysis of integrated health care network)



Data sources

	RQ1	RQ2
Primary source of data	Interview [patient]	Survey [e.g. consumers in district]
Secondary source of data	Report in council	Journal articles



Grounded theory

Coding and **memo-making** from relevant empirical data (Glaser and Strauss, 1967)

Glaser, B.G., & Strauss, A.L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Aldine de Gruyter.

What is coding?

- Decoding **micro-meaning** from **text**
[primary and secondary data]
- Identifying **patterns** of ideations, beliefs and behaviour
- **Conceptualization**

Coding from script

Coding labels

Professional
role

Place & Space

Place & Space;
Patient
experience

Primary-
secondary care

Quality of care

Technology

Participant 31: General Practitioner 5

154 I think, sometimes, I think again paediatrics has more in common
155 with General Practice than most specialties, but obviously in General
156 Practice you're looking at the whole person, not just the disease and
157 obviously the good quality Paediatrician does that and if you're
158 seeing people nearer to their home setting, then you can see, you
159 know an outpatient department is a bit remote and I'm not saying
160 it's inhumane but if you are in a setting you're comfortable in,
161 you're going to be more relaxed, you might be more honest and
162 open and give better quality answers particularly if there are social
163 issues. It would be good for consultants to be, you know recognised
164 in a certain area and I think they would appreciate that as well. So
165 no I think, obviously ways in which care could deteriorate are in
166 terms of records because obviously if the consultant doesn't have
167 the notes, that's a disaster, so I don't know what the IT set up would
168 be like, that would, you know obviously if the consultant can access
169 notes remotely whatever you're planning, that would be very, very
170 important.

Coding from script to theory

TEXT

Man #3: And that's when I thought it was weird.
 Woman #2: Are you saying that's the first time you noticed? Really? Child #2: Where's my ketchup? Man #1: What's wrong with him not noticing? It's just a small thing. Woman #2: I think it's kind of small, but also kind of big. Me: It's important to realize any differences that exist. Man #4: I agree that it's not small at all, it's really, really important. Woman #1: What are we talking about again? Child #1: I like ponies.
 Man #5: If you all think that's important, what about the different ones? Woman #3: What different ones? I can't think of anything else.
 Man #5: You know, the ones that stick to the side. Man #3: And that's when I thought it was weird. Woman #2: Are you saying that's the first time you noticed? Really? Child #2: Where's my ketchup? Man #1: What's wrong with him not noticing? It's just a small thing. Woman #2: I think it's kind of small, but also kind of big. Me: It's important to realize any differences that exist. Man #4: I agree that it's not small at all, it's really, really important. Woman #1: What are we talking about again? Child #1: I like ponies.
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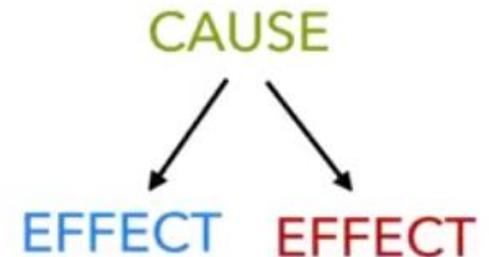
CODE

code code
 code code
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 code code
 code code
 code code
 code code
 code code

CATEGORY

category
 category
 category

THEORY



Defined/**Open** framework

Deductive Reasoning

EXPERIMENT



Predictions



THEORY

Inductive Reasoning

OBSERVATION



Generalizations



PARADIGM

Defined framework

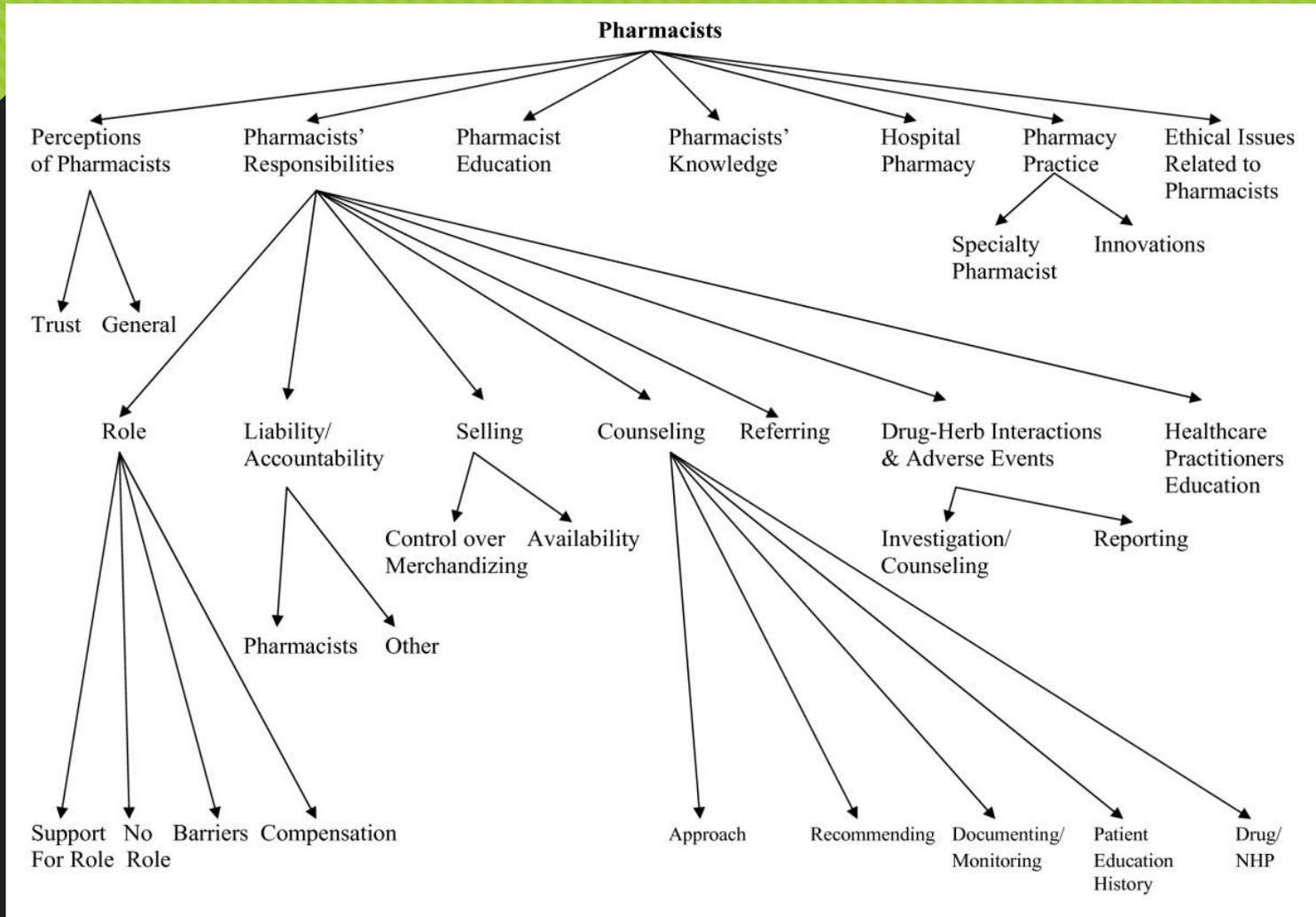
- Working on established framework / theories
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- Comparing current data with established theories

Open framework

- Exploring emerging theories
- RQs
- Methodologies
- Developing a set of codes purely based on **inductive approach**
- Identifying emerging issues or framework for further research

Exploratory study: an example

Pharmacist coding tree
[47 full-time/
part-time
pharmacists
using NVivo
for analysis]



Exercise: Generating sub-themes in an interview (1)



Think about sub-themes relating to the interview

Exercise: Generating sub-themes in an interview (2)

- **Keywords**

- Exchange programmes
- International students
- ...

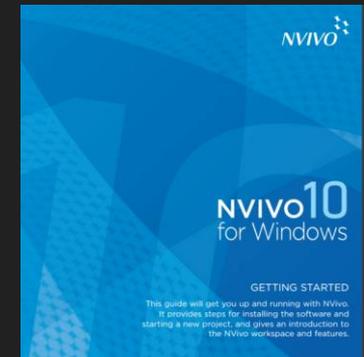
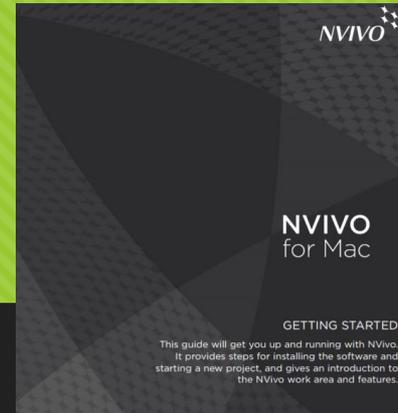
- **Categories**

- Experience [DO; impact]
- Satisfaction [FEEL]
- Implication [Prediction; policy review]
- ...

- Depending in the context of disciplines and research questions

Agenda

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- **NVivo overview**
- **Illustration on some basic steps in NVivo**
 - **Coding**
 - **Managing nodes**
 - **Making queries after coding**
- Hands-on practice using NVivo for qualitative research



NVivo: a tool to support organization and analysis of data



Working in qualitative research: Managing messy and massive data

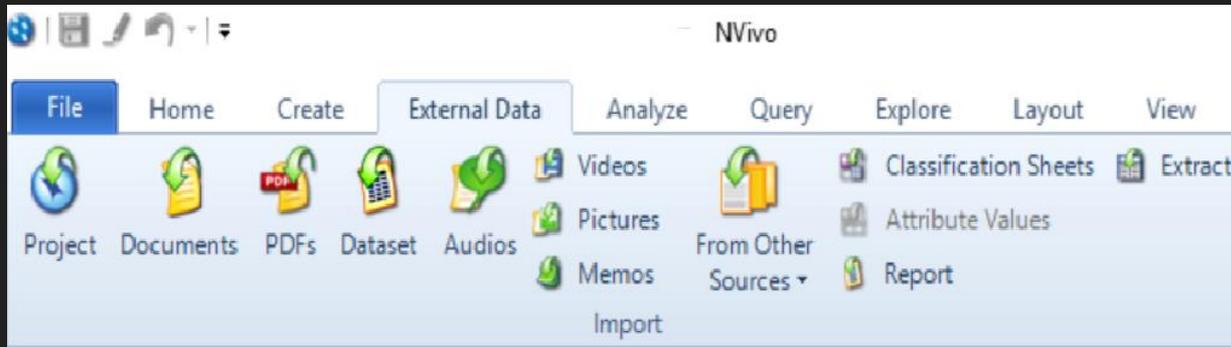
Note about using NVivo

- PC & Mac
- Version 10; Version 11 [starter, professional, plus]
- Project created from different platforms may **not** be transposed

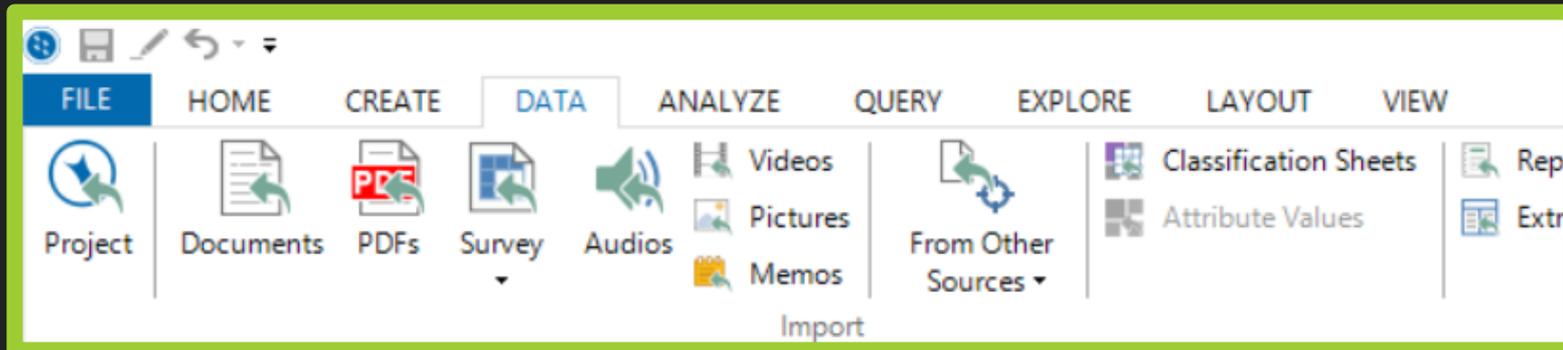
[[http://help-nv11mac.qsrinternational.com/desktop/deep_concepts/work_with_your_projects_on_windows_or_mac.htm#MiniTOCBookMark6](http://help-nv11.mac.qsrinternational.com/desktop/deep_concepts/work_with_your_projects_on_windows_or_mac.htm#MiniTOCBookMark6)]

NVivo 10 & 11 (PC)

NVivo 10

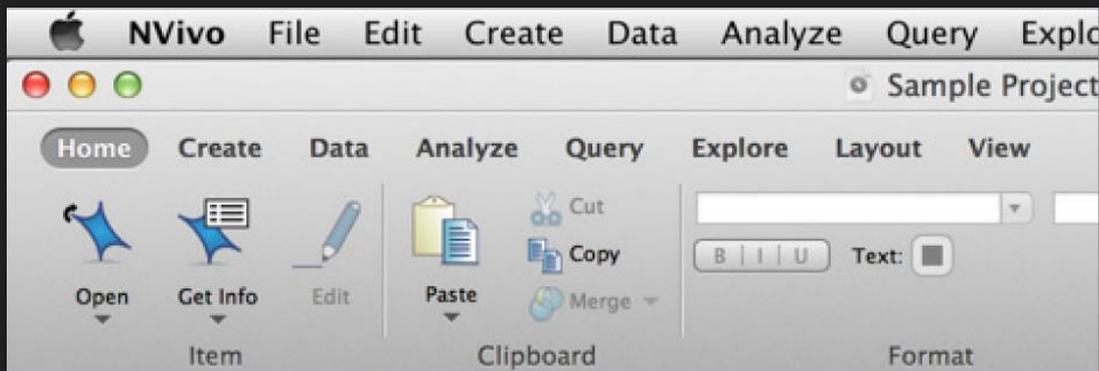


NVivo 11 Pro

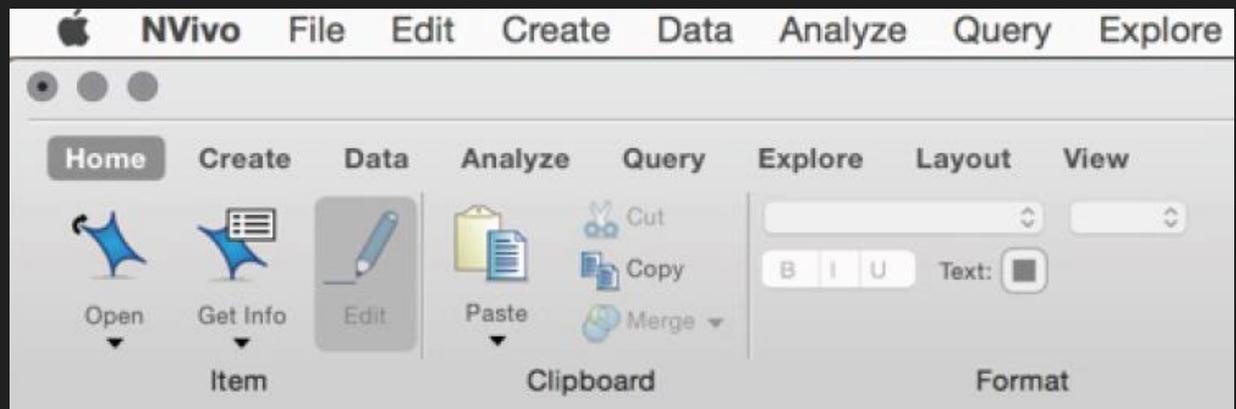


NVivo 10 & 11 (Mac)

NVivo 10



NVivo 11



NVivo overview



- Importing data

- [<https://goo.gl/sbPDx5>] importing document
- [<https://goo.gl/zPSKxK>] importing dataset [check whether column as classifying field or codable field]

Import a file [Word/Excel/PDF]

Word

I: expectations developing skills and knowledge on caring of patients through simulation.

Q: are resources provided enough?

S1: there are a lot of references but did not read all of them; read the key information sheet only

S2: the teacher provided additional web resource and I have read them. They are relevant in SPS. It is very clear to me about **brain attack with thrombolytic therapy**

S3: have NOT read the web references, but have read the key information particularly I am not sure what role that I will play

S4: have not read the information provided; but read references that I had gotten a part related cares of the case. Certainly need to prepare before attending SPS.

Excel

ID	g...	...	level_of...	coun...	body
1	m	29	b	AU	I wonder how far the law should go to protect against the snooping media, I have been shocked at how wide spread the phone hacking story has reached in the UK.
2	m	29	b	AU	Question is this: where can a 100 year old egg be obtained? sort of like a chinese delicacy and have proven very hard to obtain in my experience. they're very yummy and have only got some in a food court and once in a private residence, and at a restaurant that couldn't get next time (vague)
3	m	29	b	AU	> Have you ever posted any "newsworthy" information that helped someone > beyond your social circle, for instance? Have you ever benefited from > the information from someone you don't personally know? Have you ever > relayed certain information (by re-sharing, re-tweeting, etc) to > others who have told you later that they benefited from the > information you relayed? if your car gets egged, wash it with a bit of water instead of letting it just dry and having the folic acid or whatever super nutrients eat at the paint which means nothing by now

Content analysis

Manifest

- Component
- Words [language used] with high frequency

Latent

- Interpretation of **underlying** meaning of the text

Raw data (primary / secondary data)

Research questions

- Sampling ~ 10%
- Selected sampling after initial filtering (wrt RQs)
- Bold the central idea from a sentence [without preconceived sub-themes / categories]

Coding (1)

- Starting from Node [Grounded theory]

- **Creating Node**

- Select content > right click > new node

- <https://www.youtube.com/watch?v=idv9tlLvGwc>

- **Converting Nodes to Parent Nodes and Child Nodes**

- [linking: related, lead to, caused from]

- [contrasting, differentiating]

- Copy a node to tree node / child node

- <https://www.youtube.com/watch?v=4crQbeHKhtk>

- Starting from a **framework/theories**

- Creating a tree node with child node relating to the framework

- Select content > select the designated nodes

Coding (2)

Coding unit

- Ideas
- **Keywords [text search and save as nodes]**
 - Health information
 - Digital behaviour
 - Organizational culture
- A phrase [from source]
- Nodes

Coding scheme

- Categories [What]/
Themes [How: behavioral patterns; processes; capabilities] through aggregation of commonality
- Cases
 - Stakeholders [individuals, age-groups, gender]; categorized sectors; geographical locations

Coding – Drag and drop

The screenshot displays the NVivo software interface for a project named "Sample Project.nvp". The main window is divided into several sections:

- Top Menu:** File, Home, Create, External Data, Analyze, Query, Explore, Layout, View.
- Toolbars:** Code Selection At, Code Sources At, Code In Vivo, Memo Link, New Annotation, New Summary Link, etc.
- Nodes Panel (Left):** A tree view showing the hierarchy of nodes: Nodes, Relationships, Node Matrices.
- Nodes List (Center):** A table listing nodes with columns for Name, Sources, References, Created On, Created By, Modified On, and Modified By. A red arrow points from the "Balance" node in this list to the transcript below.
- Transcript (Bottom):** A document titled "Down East Interview" with the heading "Change in Coastal Communities: Perspectives from Down East". It contains two sections of questions: "Q.1. Connection to Down East" and "Q.2. Connection to Down East natural environment".

Name	Sources	References	Created On	Created By	Modified On	Modified By
Real estate development	28	356	16-May-10 3:38 AM	WWS	10-May-12 12:40 PM	WWS
Economy	25	303	16-May-10 3:38 AM	WWS	16-Mar-11 11:16 AM	WWS
Natural environment	24	325	16-May-10 3:39 AM	WWS	10-May-12 10:20 AM	WWS
Community	18	101	16-May-10 3:38 AM	WWS	26-Aug-10 12:18 PM	WWS
Attitude	17	992	16-May-10 4:05 AM	WWS	30-Jun-10 5:31 AM	WWS
Policy, management	14	38	16-Jun-10 2:47 AM	HGP	10-May-12 12:12 PM	WWS
Balance	6	16	17-May-10 10:57 PM	WWS	30-Aug-10 2:14 PM	WWS
Memorabl	5	16	01-Jun-10 7:47 PM	EDR	22-Jul-10 10:22 PM	WWS

Q.1. Connection to Down East

- How long have you or your family been living Down East? [# of years and/or generations]
- Multigenerational resident:
 - Do you currently live on inherited family land?
 - What is it about this place/Down East that keeps you living here, or led you to return here?
- First-generation resident:
 - What attracted you to live here or return here?
- Are there things about Down East that make it unique, different from other places?
- How would you describe your lifestyle here?
- What are some things you particularly enjoy doing or experiencing here?
- Are there particular places Down East that are important to you? What are they?

Q.2. Connection to Down East natural environment

If, in the previous questions of this section, they have not mentioned the natural environment:

- What do you think about the natural environment/landscape Down East?
- Are there things you particularly like/hate about the environment here?

Before Coding – Undock All

The screenshot shows the NVivo software interface. The ribbon is set to the 'VIEW' tab. The 'Undock All' button is circled in green. A tooltip for 'Undock All' is visible, stating: 'Undock all items currently open in Detail View so they float as separate windows.'

The interface includes a ribbon with tabs: FILE, HOME, CREATE, DATA, ANALYZE, QUERY, EXPLORE, LAYOUT, and VIEW. The 'VIEW' tab is active, showing options for Navigation View, Find, Quick Coding, Detail View, Dock All, Undock All, Close All, Docked, Bookmarks, Close, Zoom, Layout, List View, Coding Stripes, and Highlight.

The 'Nodes' pane on the left shows a tree view with folders like 'Autocoded Themes', 'NVivo_dataset', 'Cases', 'Sentiment', 'Relationships', and 'Node Matrices'. The 'Cases' folder is expanded, showing a list of cases with columns for 'Cases' and 'Referen'.

Cases	Referen
01 Survey	1 80
Nurse-jrnl-FG	1 10
Patient	2 48
Patient simulation	2 201
Peer interactions	1 1
phone hacking	0 0
Reading	1 2
reputable sources	0 0
SPS	1 30
Uncertainty when fa	0 0

The 'Transcript_University English' window is open, showing a list of interview transcripts. The first entry is 'I-1- Interviewer 1; I-2 Interview 2'. Below this, there are definitions for 'GE: General Education' and 'UE: University English'. A table with two columns is also visible, showing 'I-1' and 'GIS (A)' with corresponding text.

I-1	GIS (A)
Before us there are 3 stud of them majors in B.A. in International Studies. Be interesting or special lear taken.	I enjoy class discussion. much time was provided useful.

Coding with full screen

DATA ANALYZE QUERY EXPLORE LAYOUT VIEW

Dock All Docked Zoom Annotations Node Matrix Previous

Undock All Bookmarks L

Close All Close Window

Look for

Nodes

- Name
- 01 Survey
- Nurse-jml-FG
- Patient
- Patient simulation
- Peer interactions
- phone hacking
- Reading
- reputable sources
- SPS
- Uncertainty when facing tasks

Transcript_University English

FILE HOME CREATE DATA ANALYZE QUERY EXPLORE LAYOUT VIEW

Navigation View Find Quick Coding Detail View Close All Dock All Undock All Close All

Workspace

Window List Coding Links Detail Reference Color Scheme Visualization

I-1– Interviewer 1; I-2 Interview 2; A – Student GIS (A); B – Student BA Eng; C – Student GIS (B)

GE: General Education

UE: University English

I-1	Before us there are 3 students, among whom there are 2 male students and 1 female student. One of them majors in B.A. in English while the rest of the two major in Government and International Studies. Before discussing the UE courses, please share with us if there is any interesting or special learning experience that impresses you in those 7 to 9 GE courses you have taken.
GIS (A)	I enjoy class discussion. For example, in University English I and II taught by the same lecturer, much time was provided for me to discuss with classmates in English. The courses have been useful. As for GCVM Virtual Living in a Virtual World, much time was given also for reflection and discussion. Thus the course has been useful and inspiring. Another course I would like to talk about is Public Speaking. I learnt a lot when preparing for speech materials. It's good that we could express our opinions during the lessons.

Coding script in table

Look for Search In Find Now Clear Advanced Find

Nodes

Name	Sources	References
01 Survey	1	80
Nurse-jml-FG	1	10
Patient	2	48
Patient simul	2	201
Peer interacti	2	2
phone hackin	0	0
Reading	1	2
reputable sou	0	0
SPS	1	30
Uncertainty w	0	0

Peer interactions

[<Internals\\Transcript nursing PH unbold>](#) - 5 1 reference coded [0.30% Coverage]

Reference 1 - 0.30% Coverage

met in the morning with team members (Preparation)

[<Internals\\Transcript University English>](#) - 5 1 reference coded [0.20% Coverage]

Reference 1 - 0.20% Coverage

GIS (A)	<p>I enjoy class discussion. For example, in University English I and II taught by the same lecturer, much time was provided for me to discuss with classmates in English. The courses have been useful.</p> <p>As for GCVM Virtual Living in a Virtual World, much time was given also for reflection and discussion. Thus the course has been useful and inspiring.</p> <p>Another course I would like to talk about is Public Speaking. I learnt a lot when preparing for speech materials. It's good that we could express our opinions during the lessons.</p>
---------	--

Drag selection here to code to a new node

Coding PDF (text)

○ By text

Home Create External Data Analyze Query Explore Layout View

Refresh Open Properties Edit Paste Copy Merge

Space Item Clipboard Format Paragraph Styles Editing Proofing

Look for Search in Nodes Find Now Clear Advanced Find

Name	Sources	References	Created On	Created By	Modified On
Natural Environment	1	1	8/22/2012 1:34 PM	SRJ	8/22/2012 1:34 PM
Water Quality	1	1	8/22/2012 1:35 PM	SRJ	8/22/2012 7:33 PM

Estuary economics exec



VALUE OF COASTS AND ESTUARIES: What's At Stake?

Executive Summary

By Linwood Pendleton

Our nation was built from the coast. Americans, like people around the world, are drawn to the coast because of its beauty, productivity, and because our coasts are gateways to the world. The coast nurtures our frontier spirit, our need for outdoor recreation, and the constant American appetite for sweeping ocean views and quiet bayfront vistas. Coasts, coastal oceans, and estuaries are essential to ocean fisheries and aquaculture. Coasts and their waters also generate oxygen, sequester carbon dioxide, and provide habitat to plants and animals both marine and terrestrial.

Unfortunately, we have a poor track record when it comes to taking care of our coasts and estuaries. Years of badly planned coastal housing have led to heroic, and sometimes desperate, measures to hold back the forces of nature by using engineering rather than ecological stewardship. Seawalls have transformed once natural coasts into marine hazards unfit for the basic activities that first drew homeowners to the sea – swimming, boating, and fishing. Estuaries too have been under siege. Bays once filled with fish and oysters have become dead zones filled with excess nutrients, chemical wastes, and harmful algae. Wetlands, especially coastal salt

Source: https://www.youtube.com/watch?v=fB_Gsmfmr7U

Coding PDF (Region)

- By region

The screenshot shows a software interface with a menu bar (Home, Create, External Data, Analyze, Query, Explore, Layout, View) and a toolbar. A search bar is set to 'Look for' with 'Search In' set to 'Nodes'. The search results show two nodes: 'Natural Environment' and 'Water Quality', both with 1 source and 1 reference. The main window displays a PDF page with a table titled 'Table 1: Estimated Annual Value of Selected Coastal Recreation (millions of US\$)'. The table has columns for 'Beach Going', 'Recreational Fishing', and 'Wildlife Viewing', each with 'Low' and 'High' sub-columns. The rows represent different regions: Far-Western U.S., Western Continental U.S., Gulf-shore Southern U.S., Southeastern U.S., Northeastern U.S., and U.S. Total.

	Beach Going		Recreational Fishing		Wildlife Viewing	
	Low	High	Low	High	Low	High
Far-Western U.S.	\$218	\$653	\$800	\$3,866	\$463	\$4,633
Western Continental U.S.	\$1,845	\$9,226	\$687	\$2,750	\$957	\$9,574
Gulf-shore Southern U.S.	\$1,185	\$11,848	\$5,645	\$9,408	\$1,151	\$11,508
Southeastern U.S.	\$1,769	\$4,424	\$1,632	\$2,720	\$645	\$6,449
Northeastern U.S.	\$933	\$3,732	\$1,109	\$7,393	\$1,661	\$16,606
U.S. Total ^a	\$5,950	\$29,883	\$9,873	\$26,136	\$4,877	\$48,770

^aNote, some double counting may occur when adding across states, but this double counting is likely to be a small compared to estimation error. More serious double counting could occur when adding values across different recreational activity types.

Coding video

The screenshot displays the NVivo software interface. The top menu bar includes File, Home, Create, External Data, Analyze, Query, Explore, Layout, View, and Media. The Media tab is active, showing a toolbar with options like Video Size, Fit To Player, Split Panes, Stop, Play/Pause, Playback, Play Mode, Start Selection, Finish Selection, Play Transcript Media, Select Media from Transcript, Assign Timespan to Rows, Assign Frame as Thumbnail, Transcript Rows, Media Content, and Import.

The main window is divided into several sections:

- Nodes:** A table listing nodes and their associated sources and references.
- Search:** A search bar with options for 'Look for', 'Search in', and 'Find Now'.
- Video Player:** A video player showing a video frame with a timestamp of 0:50.4 and a waveform below it.
- Summary/References/Text/Video:** A vertical sidebar on the right side of the interface.

Name	Sources	References	Created On	Created By	Modified On	Modified By
Natural Environment	3	4	8/22/2012 1:34 PM	SJU	8/22/2012 1:34 PM	SJU
Habitat	1	1	8/22/2012 7:55 PM	SRJ	8/22/2012 7:55 PM	SRJ
Water Quality	2	3	8/22/2012 1:35 PM	SRJ	8/22/2012 8:14 PM	SRJ

Source:

<https://www.youtube.com/watch?v=5MKf6DeJAb0>

Coding technique

- Code at an existing node
- Drag and drop coding
- Code at a new node
- Using the Quick Coding bar
- **Code results from queries**
- Using nicknames to speed up coding
- Make a node from selected text (In Vivo code)

Credit:

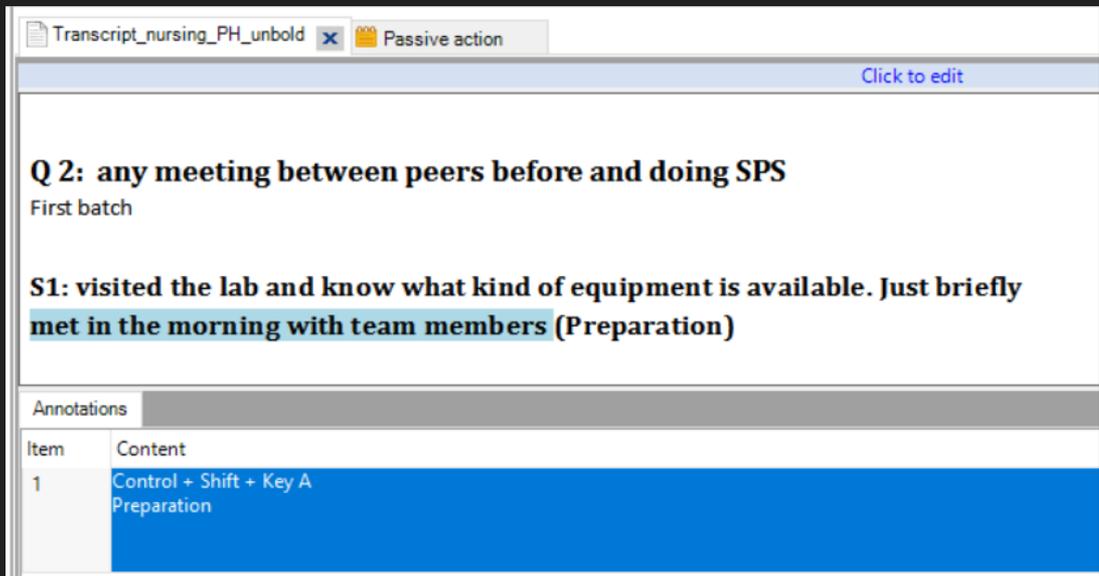
http://help-nv10.qsrinternational.com/desktop/procedures/more_manual_coding_techniques.htm [PC]

http://help-nv10mac.qsrinternational.com/desktop/procedures/more_manual_coding_techniques.htm [Mac]

Coding strategies

- Keeping coding strips on
- Doing a pilot with a few scripts
- Reviewing the coding system; avoiding many coding on the same script – keeping the dominant themes
- Inserting brief description about a node, example and exclusion – important when work with more than one coders
- Making annotation in text where necessary

Making annotation [the document] (Ctrl+Shift+Key 'A')



Coding by categories

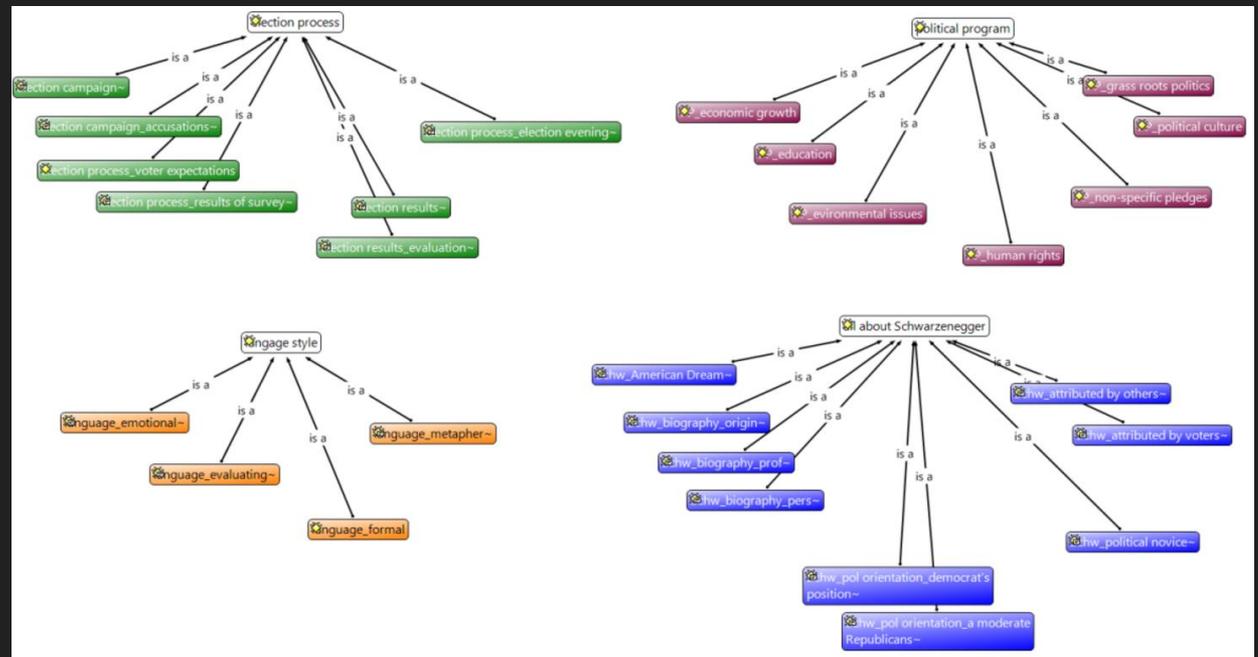


Image source:

http://www.quarc.de/fileadmin/downloads/figures/Figure%207.26_%20Developing%20categories%20in%20the%20form%20of%20hierachical%20trees.png

Categorization example (1)

Theme	LACK OF CONTROL AND STRUGGLE FOR REGAINING CONTROL					
Category	SENSATIONS			ACTIONS		COGNITIONS
Sub-category	Unfamiliar bodily sensations	Familiar but unexpected bodily sensations	Terrible feelings	Unfamiliar actions	Familiar but unexpected actions	Thinking difficulties
Codes	Double vision Emptiness in the head Emptiness in the stomach Stiffness in the tongue Unsteadiness Weightiness in the legs	Enormous hunger Palpitations of the heart Tremor Sweating	Frightened to death Loss of control Uncertainty Confusion	Fumbling Disconnected speech Disruptive behaviour	Urge to eat Verbal expressions of anger “Attack” on the refrigerator	Inability to think clearly Uncertainty of what to say Unawareness of surroundings

Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse education today*, 24(2), 105-112.

Categorization example (2)

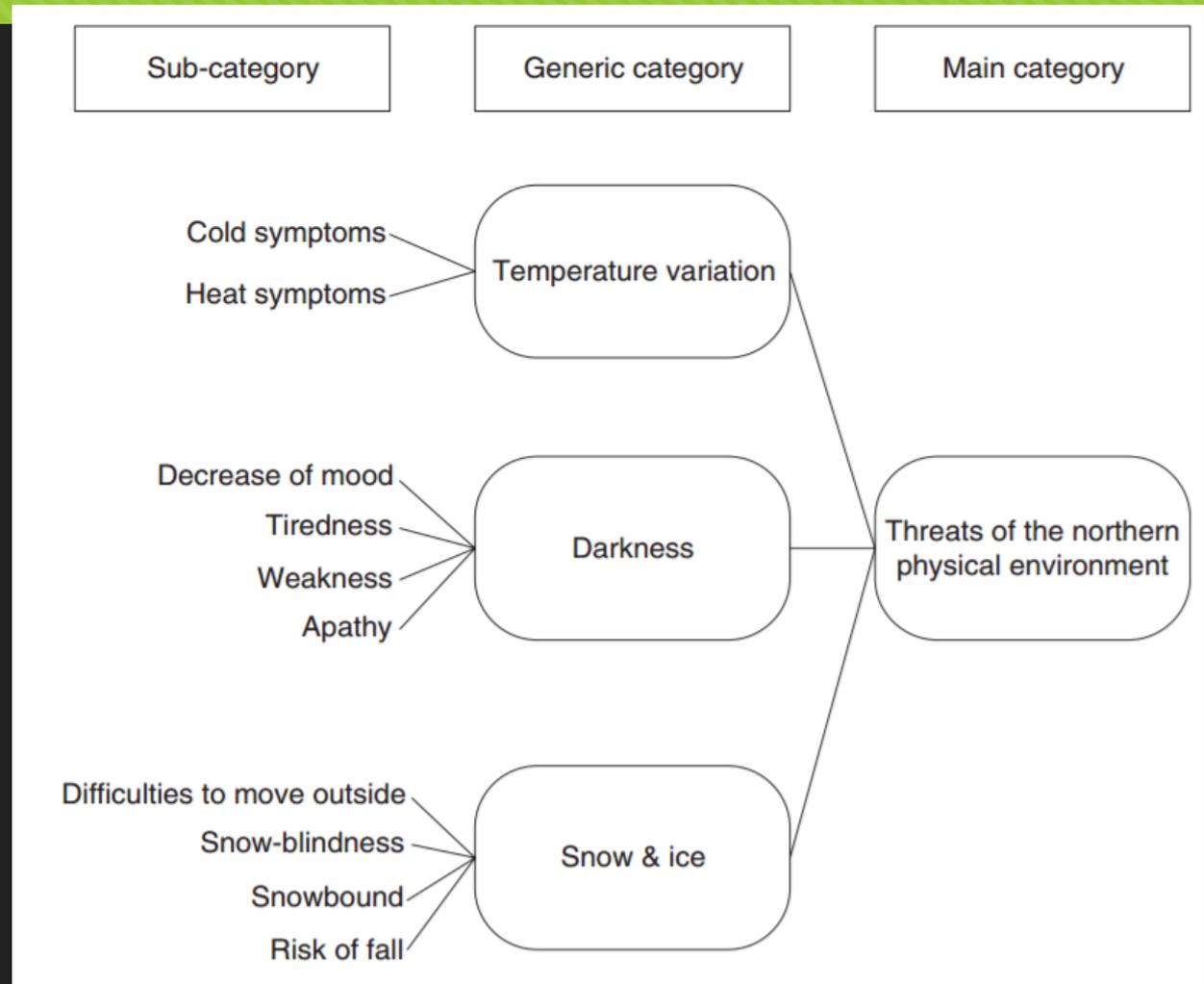


Image source:
https://www.researchgate.net/profile/Satu_Elo/publication/5499399_The_qualitative_content_analysis/links/02bfe5112a36ee6e8a000000.pdf

Managing nodes (1)

Organization of nodes

- Drag and drop
 - Form Child node
- Rename
- Delete

The screenshot displays the NVivo Plus software interface. The top menu bar includes FILE, HOME, CREATE, DATA, ANALYZE, QUERY, EXPLORE, LAYOUT, and VIEW. Below the menu is a toolbar with various icons for workspace, item, clipboard, format, paragraph, styles, and editing. The main workspace is divided into a left sidebar and a central pane. The sidebar shows a tree view of nodes, including Autocoded Themes, Cases, Relationships, and Node Matrices. The central pane displays a table of nodes with columns for Name, Sources, References, Created By, and Created On. A context menu is open over the 'real patients' node, showing options like 'New Node...', 'Open Node...', 'Export', 'Print', 'Cut', 'Copy', 'Paste', 'Merge Into Selected Node...', 'Merge Into New Child Node...', 'Delete', 'Auto Code...', 'Memo Link', 'Expand/Collapse', 'Move Up', 'Move Down', 'Create As', 'Add To Set...', 'Visualize', 'Node Properties...', 'Color', and 'Aggregate Coding from Child Nodes'.

Name	Sources	References	Created By	Created On
helpful course teaching	0	0	CI	1/18/2017 11:51 AM
Interview question	0	0	PH	1/18/2017 3:52 PM
Nurse-jrnl-FG	1	10	PH	1/17/2017 5:29 PM
Patient	2	48	PH	1/17/2017 4:49 PM
REAL patient		1	PH	1/17/2017 4:53 PM
real patients		4	CI	1/18/2017 11:51 AM
simulated patient		1	PH	1/17/2017 5:00 PM
Patient simulation		201	PH	1/17/2017 7:11 PM
Peer interactions		1	PH	1/17/2017 4:28 PM
phone hacking		0	PH	1/18/2017 12:03 PM
Reading		2	PH	1/17/2017 4:23 PM
reputable sources		0	PH	1/18/2017 12:29 PM
SPS		30	CI	1/18/2017 11:51 AM
Student responses		0	PH	1/18/2017 3:50 PM
Uncertainty when facing tasks		0	CI	1/18/2017 11:51 AM

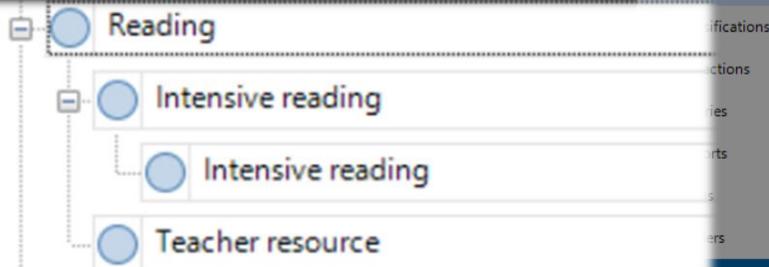
Managing nodes (2)

Merging nodes

- Cut the node
- Merge into New Child Node

The screenshot displays the NVivo Plus interface with the 'Nodes' list on the left and a table of node statistics on the right. The 'Reading' node is selected, and a context menu is open over it, showing options like 'Merge Into New Child Node...'. The table below shows the following data:

Name	Sources	References	Created By	
01 Survey		1	80	PH
law		1	1	PH
MOTIVATION		1	1	PH
incentive		0	0	PH
Nurse-jrnl-FG		1	10	PH
Patient		3	56	PH
REAL patient		3	6	PH
simulated patient		1	2	PH
Patient simulation			201	PH
Peer interactions			2	PH
phone hacking			0	PH
Reading			7	PH
Intensive reading			5	PH
Intensive reading			3	PH
teacher resource			1	PH
reputable sources			0	PH
S2			0	PH
SPS			30	CI
Role clarity			2	PH
Uncertainty when facing tasks			0	PH
Uncertainty when facing tasks			0	CI



Managing nodes (3)

Merging nodes

- Cut the node
- Merge into Selected Node

The screenshot shows the NVivo Plus interface with a list of nodes. The 'Reading' node is selected, and a context menu is open over it. The menu options include 'New Node...', 'Open Node...', 'Export', 'Print', 'Cut', 'Copy', 'Paste', 'Merge Into Selected Node...', 'Merge Into New Child Node...', and 'Delete'. The 'Merge Into Selected Node...' option is highlighted.

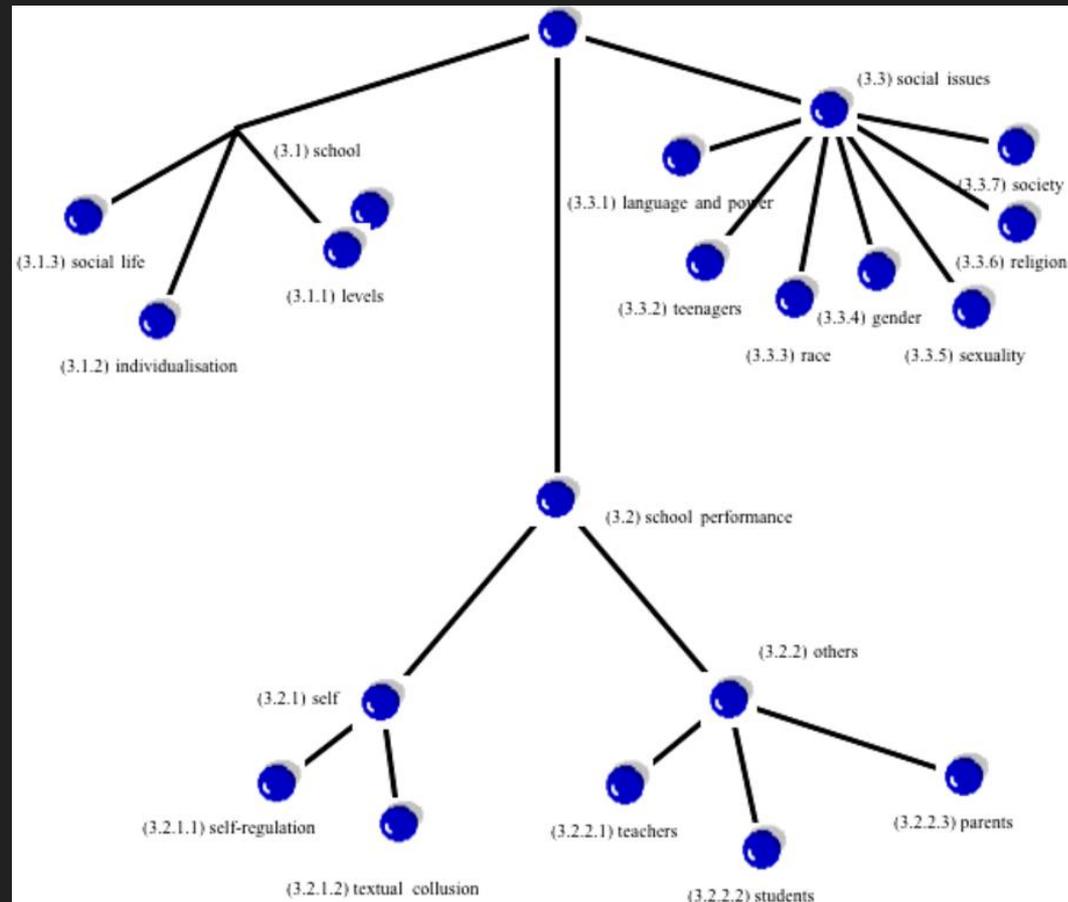
Name	Sources	References	Created By
01 Survey		1	80 PH
law		1	1 PH
MOTIVATION		1	1 PH
Nurse-jrnl-FG		1	10 PH
Patient		3	56 PH
REAL patient		3	6 PH
simulated patient		1	2 PH
Patient simulation		2	201 PH
Peer intera		2	2 PH
phone hac		0	0 PH
Reading		1	2 PH
Intensi		1	4 PH
Inte		1	2 PH
Teache		1	1 PH
reputable:		0	0 PH
S2		0	0 PH
SPS		1	30 CI

This close-up shows the 'Reading' node structure. The 'Reading' node has 1 source and 3 references. It contains two child nodes, both named 'Intensive reading'. The first 'Intensive reading' node has 1 source and 4 references, while the second 'Intensive reading' node has 1 source and 2 references.

Node Name	Sources	References
Reading	1	3
Intensive reading	1	4
Intensive reading	1	2

The bottom of the image shows the Windows taskbar with the 'Ask me anything' search bar and various application icons. The NVivo Plus status bar at the bottom indicates the user is 'PH' and has '107 Items'.

Levels of coding



Organizing nodes > themes

Organize your nodes



Organize your nodes

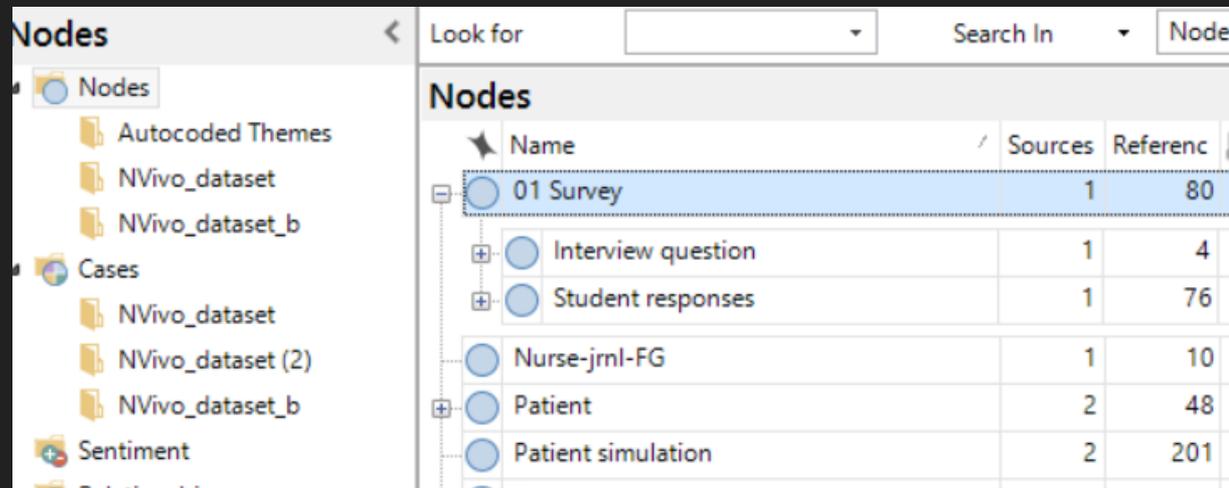
Build an efficient node hierarchy to clarify your thinking and reflect the association between themes

NVivo for Mac

Credit:
<https://www.youtube.com/watch?v=KzLcFA0mWDQ>

Organizing the viewing order of nodes

- By hierarchy
 - Alphabetical
 - Add number before nodes to set your own node order



The screenshot shows the NVivo software interface. On the left, a hierarchical tree view shows the following structure:

- Nodes
 - Autocoded Themes
 - NVivo_dataset
 - NVivo_dataset_b
- Cases
 - NVivo_dataset
 - NVivo_dataset (2)
 - NVivo_dataset_b
- Sentiment

On the right, a table titled 'Nodes' displays the following data:

Name	Sources	Referenc
01 Survey	1	80
Interview question	1	4
Student responses	1	76
Nurse-jrnl-FG	1	10
Patient	2	48
Patient simulation	2	201

Viewing coding results

- Spread: line, paragraph

The screenshot displays the NVivo interface with the following components:

- Nodes Panel (Left):** A tree view showing a hierarchy of nodes. The 'Patient' node is selected under the 'Cases' folder.
- Nodes Table (Center):** A table listing nodes and their associated sources and reference counts.
- Search Results (Right):** A list of references for the selected 'Patient' node, showing the source file and the percentage of coverage.
- Context Menu (Right):** A context menu is open over a reference, offering various actions such as 'Code...', 'Code to Recent Nodes', 'Spread Coding', 'Export Node...', and 'Coding Context'.

Name	Sources	Referenc
01 Survey	1	80
Nurse-jrnl-FG	1	10
Patient	2	48
Patient simulation	2	201
Peer interactions	1	1
phone hacking	0	0
Reading	1	2
reputable sources	0	0
SPS	1	30
Uncertainty when f	0	0

Search results for 'Patient':

- Reference 1 - 0.02% Coverage
- Reference 7 - 0.02% Coverage
- Reference 8 - 0.02% Coverage

Auto-coding: mechanical coding

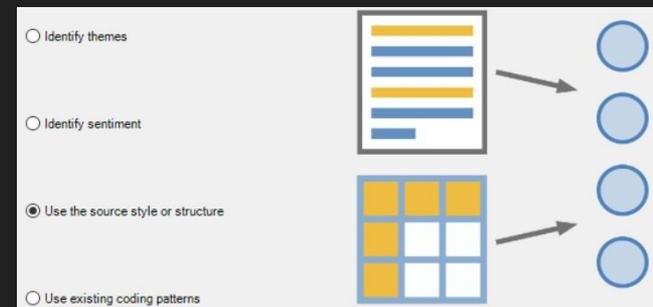
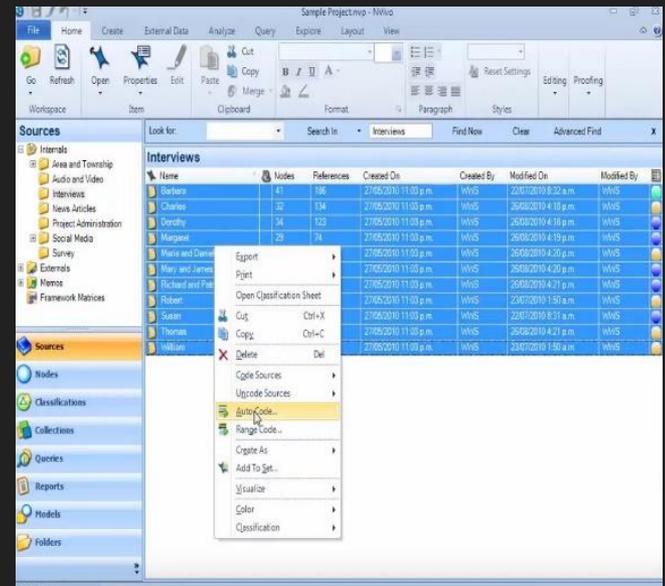
Format the transcriptions in Style

- Heading 1: Parent (Main question)
- Heading 2: Child (Sub-questions)

Steps:

Code > Auto Code > Paragraph style > Select Heading 1 / Heading 2 > new node > naming of new node > OK

<https://www.youtube.com/watch?v=G279rrEnWOI>



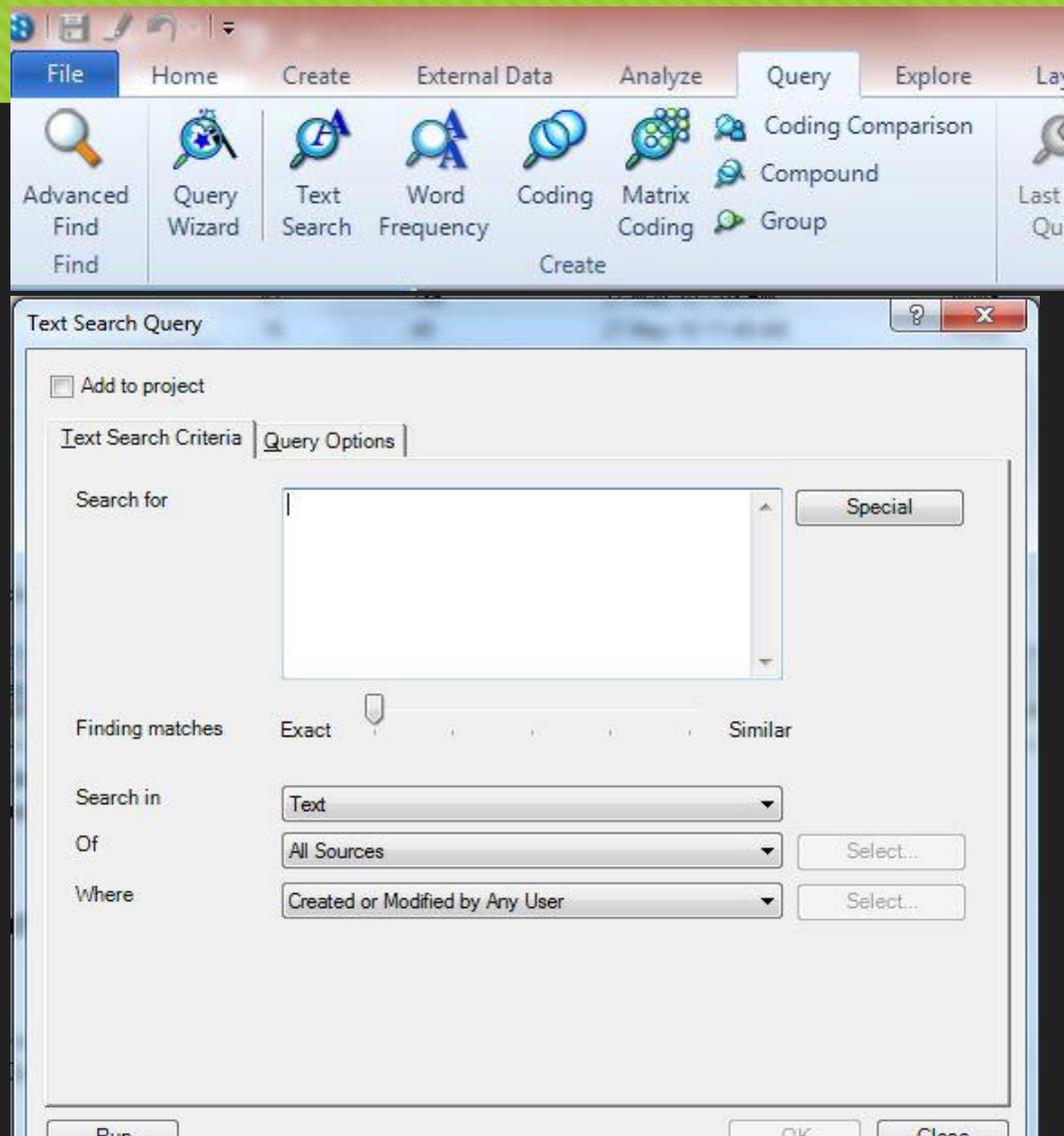
Text search & save as nodes

- Queries look for source content

- Text Search Query

<https://www.youtube.com/watch?v=CkRXmwqjATk>

- Saving the results as coding at nodes



Making query after coding (1)

Search in
'Internal'
source or
'Selected
Items'

The screenshot shows the NVivo software interface with the 'QUERY' menu open. The 'Selected Items...' option is highlighted with a green circle. The 'Internals' table is visible on the left, and the 'Select Project Items' dialog box is open in the foreground.

Name	Nodes	Referen
NVivo_dataset	16	61
Patient simulation	1	192
Transcript_nursin	5	71
Transcript_nursin		
Transcript_nursin		
Transcript_Univer		

Name	Created
NVivo_dataset	1/18/2017 9:58 PM
Patient simulation 1998	1/17/2017 7:02 PM
Transcript_nursing_PH_PDF	1/18/2017 11:51 AM
Transcript_nursing_PH_unbold	1/17/2017 4:17 PM
Transcript_nursing_PH_unbold_with he	1/18/2017 12:12 PM
Transcript_University English	1/18/2017 9:53 PM

Making query after coding (2)

Select 'Any Selected Nodes'
&
Run Query

The screenshot shows a software interface with a menu bar (FILE, HOME, CREATE, DATA, ANALYZE, QUERY, EXPLORE, LAYOUT, VIEW, NODE) and a 'Coding Criteria' panel. In the 'Coding Criteria' panel, the 'Search in' section is set to 'All Sources'. The 'Coded at' dropdown is set to 'Any Selected Node', and the 'Spread to' dropdown is set to 'None'. Below the 'Coding Criteria' panel, the search results are displayed. The first result is '<Internals\HKU04x2T2015(part1).CN.PH> - 5 3 references coded [2.81% Coverage]'. The second result is 'Reference 1 - 0.66% Coverage' with the text 'You focus on entertainment news, pop star story interviews, film promotion, or film industry reports? There are great different kind of interview subjects and need different interview techniques.' The third result is 'Reference 2 - 1.08% Coverage' with the text 'I remembered that news. What shocked me most is the first version (I scanned on the Internet) was a rumor, and then many other rumors emerged. Key information was hidden and tampered. Sometimes news on the Internet is fragile.' The fourth result is 'Reference 3 - 1.08% Coverage' with the text 'As a resident from Beijing, I feel the Parking charge is more and more expensive. Some days ago, property management company sent an E-mail to me, it is said that they will charged parking fee in the future, beacuse before is no charge. In addition, property management company charge the parking is 20RMB per an hour, so we very angry, but We have no alternative, we must accept this rules. From now on, I have to by bus every day to reduce the Parking charge. May be I am ...' The 'Any Selected Node' dropdown and the search results are circled in green.

FILE HOME CREATE DATA ANALYZE QUERY EXPLORE LAYOUT VIEW NODE

^ Coding Criteria Run Query Save Results...

Search in All Sources Selected Items... Selected Folders...

All of the following are true

Coded at Any Selected Node ... (2) Internet news, Unrelated person...

Spread to None

<Internals\HKU04x2T2015(part1).CN.PH> - 5 3 references coded [2.81% Coverage]

Reference 1 - 0.66% Coverage

You focus on entertainment news, pop star story interviews, film promotion, or film industry reports? There are great different kind of interview subjects and need different interview techniques.

Reference 2 - 1.08% Coverage

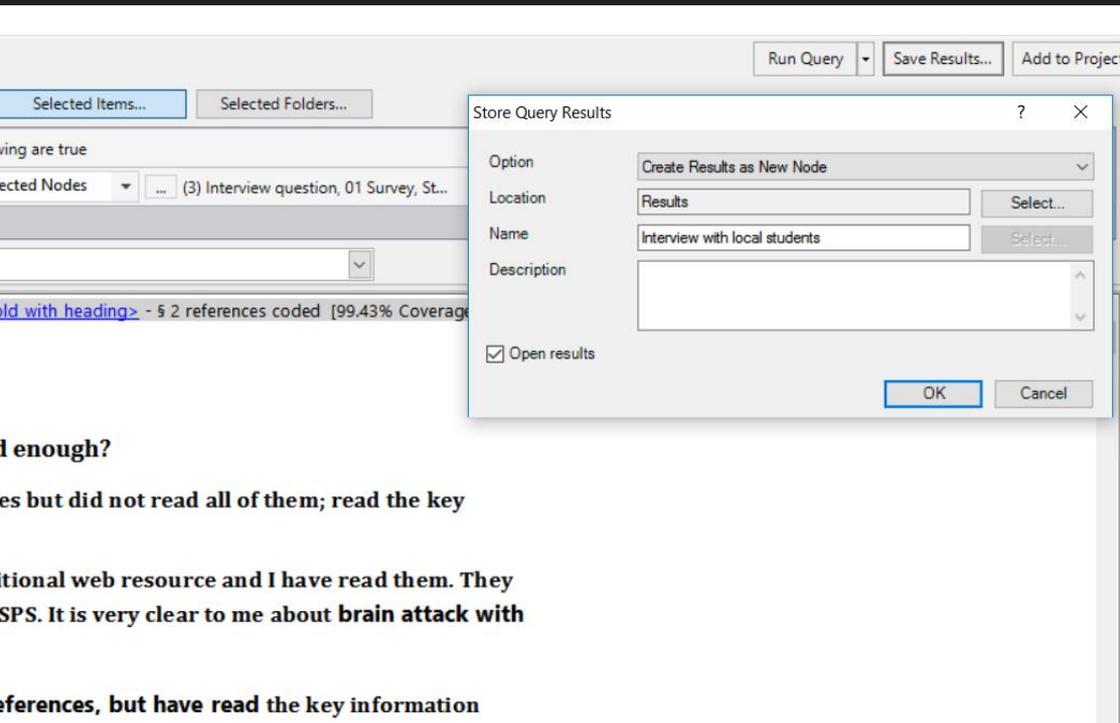
I remembered that news. What shocked me most is the first version (I scanned on the Internet) was a rumor, and then many other rumors emerged. Key information was hidden and tampered. Sometimes news on the Internet is fragile.

Reference 3 - 1.08% Coverage

As a resident from Beijing, I feel the Parking charge is more and more expensive. Some days ago, property management company sent an E-mail to me, it is said that they will charged parking fee in the future, beacuse before is no charge. In addition, property management company charge the parking is 20RMB per an hour, so we very angry, but We have no alternative, we must accept this rules. From now on, I have to by bus every day to reduce the Parking charge. May be I am ...

Source:
<https://www.youtube.com/watch?v=NRSRIVBJD4I>

Save results in 'Result folder' or as new node



Run Query Save Results... Add to Project

Selected Items... Selected Folders...

Store Query Results

Option: Create Results as New Node

Location: Results

Name: Interview with local students

Description:

Open results

OK Cancel

... (3) Interview question, 01 Survey, St...

old with heading> - 5 2 references coded [99.43% Coverage

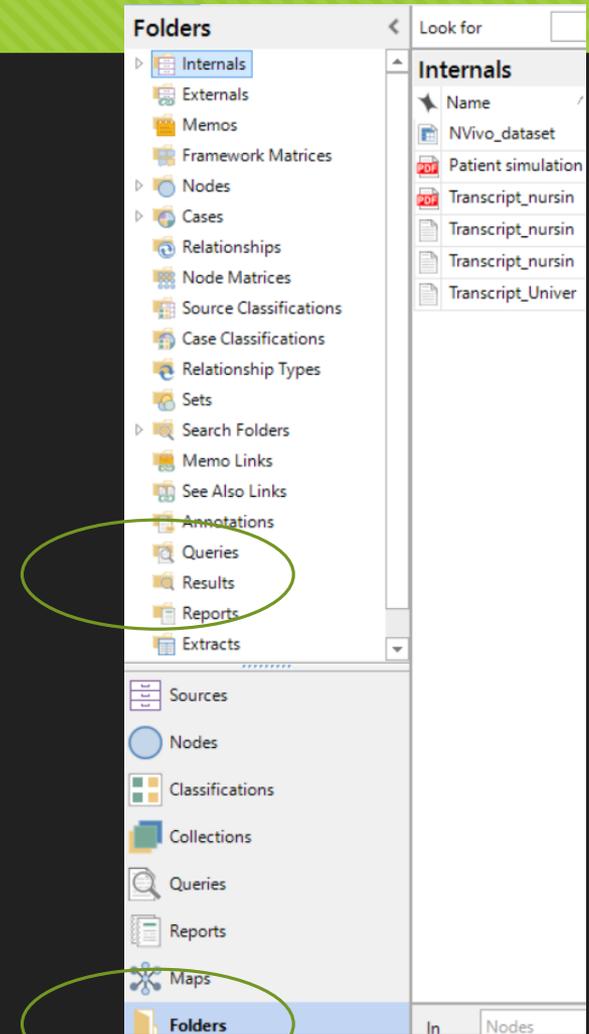
enough?

es but did not read all of them; read the key

tional web resource and I have read them. They

SPS. It is very clear to me about brain attack with

ferences, but have read the key information



Folders

Look for

Internals

- Name
- NVivo_dataset
- Patient simulation
- Transcript_nursin
- Transcript_nursin
- Transcript_nursin
- Transcript_Univer

Internals

- Externals
- Memos
- Framework Matrices
- Nodes
- Cases
- Relationships
- Node Matrices
- Source Classifications
- Case Classifications
- Relationship Types
- Sets
- Search Folders
- Memo Links
- See Also Links
- Annotations
- Queries
- Results
- Reports
- Extracts

Sources

Nodes

Classifications

Collections

Queries

Reports

Maps

Folders

Validation of qualitative research

- Multiple [independent] coding
- High intercoder reliability

http://help-nv10.qsrinternational.com/desktop/procedures/run_a_coding_comparison_query.htm

- Respondent validation

Verification techniques used in qualitative research

Technique	Definition
Triangulation	Using multiple data sources in an investigation to produce understanding
Peer review/ debriefing	The "process of exposing oneself to a disinterested peer in a manner paralleling an analytical session and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer's mind"
External audits/ auditing	Auditing involves having a researcher not involved in the research process examine both the process and product of the research study. The purpose is to evaluate the accuracy and evaluate whether the findings, interpretations, and conclusions are supported by the data
Member checking	Data, analytic categories, interpretations, and conclusions are tested with members of those groups from whom the data were originally obtained. This can be done both formally and informally, as opportunities for member checks may arise during the normal course of observation and conversation

Coding process (1)

Coding is an iterative process

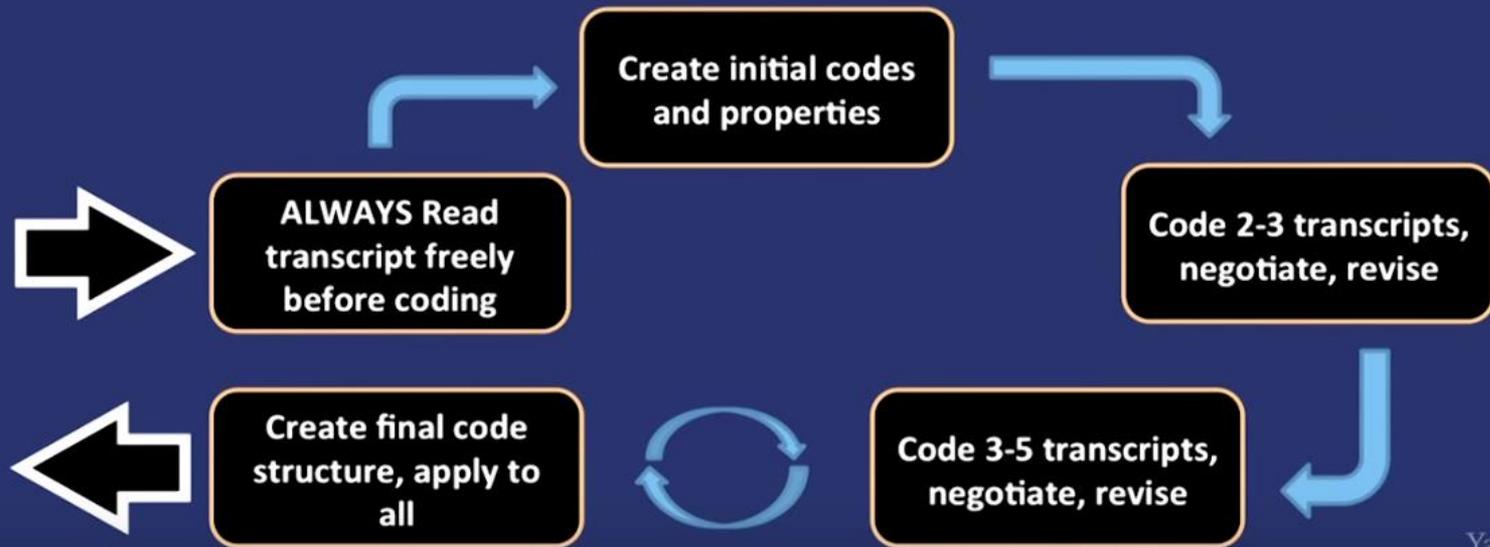


Image source: <https://www.youtube.com/watch?v=opp5tH4uD-w>

Coding process (2)

The Coding Process in Inductive Analysis

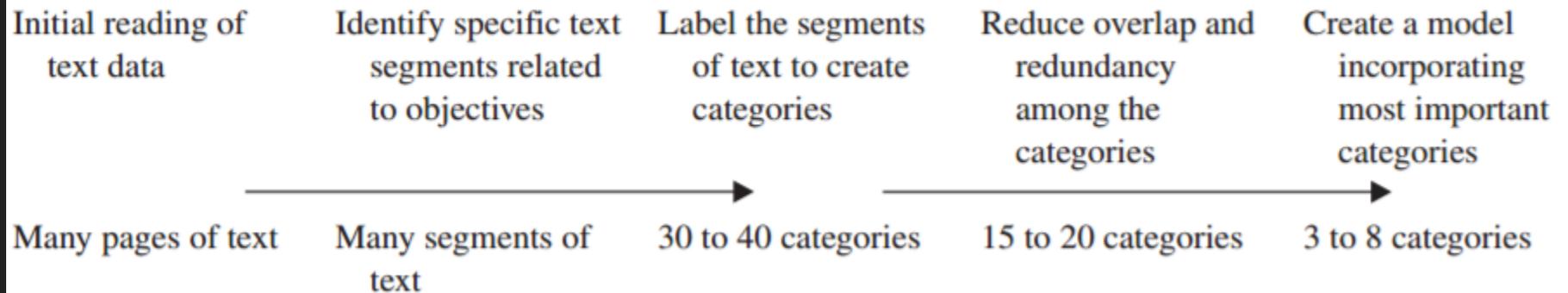


Image source: https://flexiblelearning.auckland.ac.nz/poplh701/8/files/general_inductive_approach.pdf

Model building

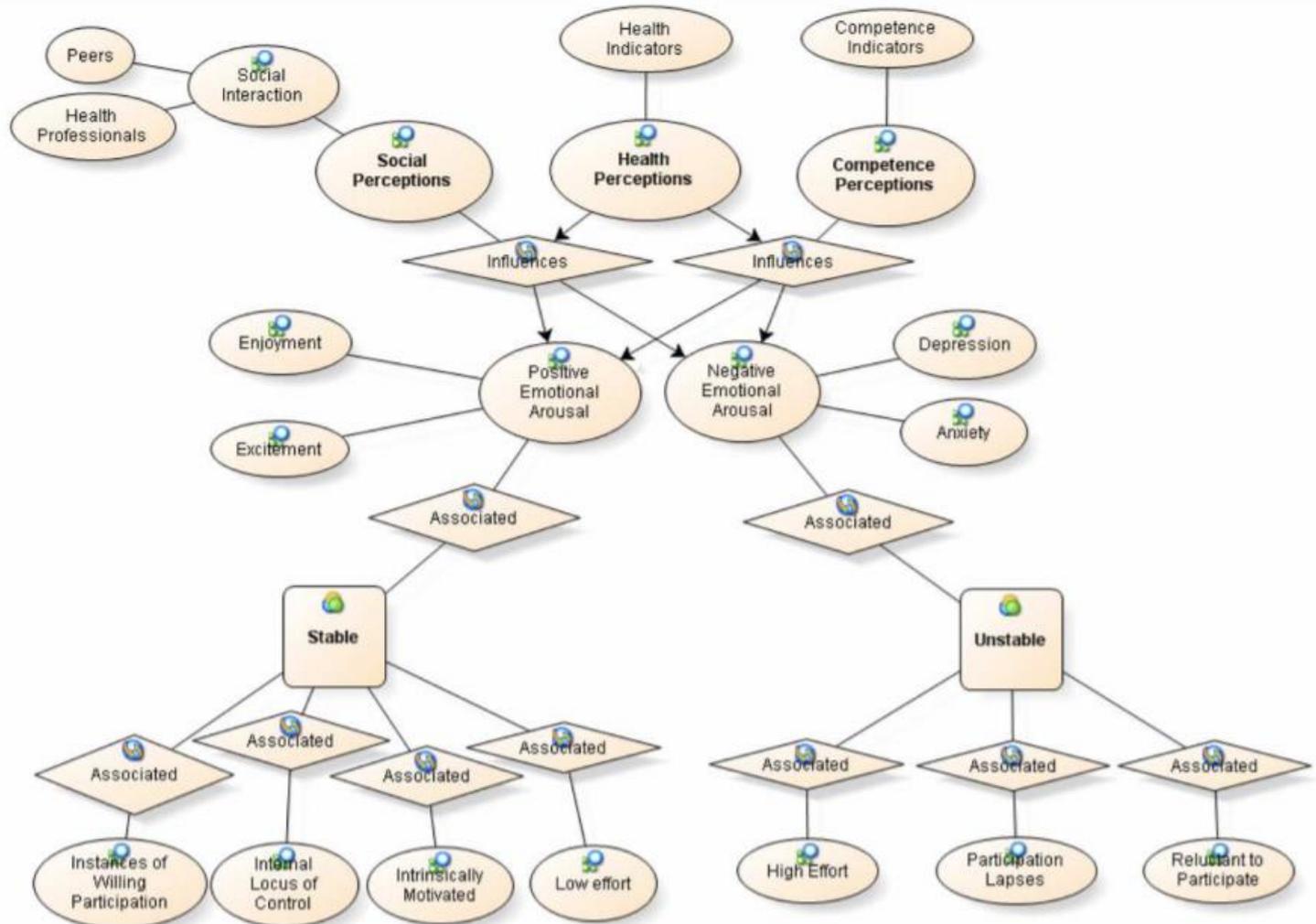


Image source:
<http://www.tandfonline.com/doi/pdf/10.1080/13645570902996301?nedAccess=true>

Research processes

- Research questions / foci
- Research methods, e.g. conducting interviews
- Data collection
 - Collect few interviews transcription
 - Collect all interviews > transcription
- **Data processing**
 - **Decide FULL transcription / summary of interviews**
 - **Listen to few recorded interviews**
 - **Decide what and how to code > categories / themes > sub-themes [common properties]**
 - **Validate coding > regularly comparing codes; comparing codes between coders**

BEFORE importing source materials

- Format: remove table in the Word file
- Data processing on interviewing script
 - Interviewees [pseudo name (unique ID), ID – discipline]
 - Entry by questions
 - Entry by main ideas
 - Entry by turns (interviewer / interviewee)
 - Transcription [relating to main research foci]
 - Spoken manner
 - Written form
 - Highlights in bold
- Create folders
- Import file as 'internal' source

Reflection

- Data sources?
- Coding wrt RQs
- Coding consistency
- Coding reliability
- Latent meaning (missing coding)
- Compare and contrast existing coding / examples
- Aggregation or expansion of themes/categories
- Supporting evidence [FGD, document (primary & secondary)]
- Reaching **saturation**

The final grounded theory should represent an explanatory model of the studied phenomenon grounded in relevant empirical data (Glaser & Strauss, 1967)

Conclusion

- **RE'SEARCH'** > Providing evidence and supporting arguments through exhausting sources of data with renewal insights to formulate development of theories.
- A systematic use of qualitative data analysis software can provide a reliable mechanism for conducting qualitative research.

Video tutorials (1)

- Importing documents in NVivo 10 for Windows in 3 minutes

<https://goo.gl/sbPDx5>

- Importing datasets in NVivo 10 for Windows

<https://goo.gl/zPSKxK>

- Getting started with NVivo

<https://www.youtube.com/watch?v=Xe0NpJPLQ6k&t=921s>

Video tutorials (2)

- Creating nodes in NVivo 10 for Windows in 2 minutes
<https://www.youtube.com/watch?v=idv9tILvgWc>
- Coding is faster and easier in NVivo 11
https://www.youtube.com/watch?v=2ltGzs_uoog
- Coding a video in NVivo 10
<https://www.youtube.com/watch?v=5MKf6DeJAb0>
- NVivo 10 Text search Queries
<https://www.youtube.com/watch?v=CkRXmwqjATk>
- Automatic coding techniques in NVivo 11
https://www.youtube.com/watch?v=4S_xiW_vwWM

Video tutorials (3)

- *NVivo 11 Pro: Coding query
<https://www.youtube.com/watch?v=NRSRIVBJD4I>
- *Using NVivo 10 for Windows for Sociological Qualitative Data
<https://www.youtube.com/watch?v=vfqaW61o0rg>

More videos for Window Users

- Basic training NVivo 10

<https://www.youtube.com/watch?v=x0axXcOAGiU>

- Autocoding

<https://www.youtube.com/watch?v=yKWj1HTOjR4>

- Intermediate NVivo 11 training

<https://www.youtube.com/watch?v=XsplolE3Tvw>

- Advanced NVivo 10 training

<https://www.youtube.com/watch?v=o9oiik67gNY>

- Power of coding

<https://www.youtube.com/watch?v=sLX8vaK3qTw>

Videos for Mac Users

- Import Documents in NVivo for Mac | NVivo How-to Video (NVivo 10)
<https://www.youtube.com/watch?v=ITGuYL5Xu4c&list=PLNjHMRgHS4Ffw7846yApe-qTP1kUrN4RX&index=2>
- How to import data from a spreadsheet in NVivo for Mac | NVivo How-to Video (NVivo 10)
<https://www.youtube.com/watch?v=aSZC9mKu78Y&list=PLNjHMRgHS4Ffw7846yApe-qTP1kUrN4RX&index=14>
- How to annotate in NVivo for Mac | NVivo How-to Video (NVivo 10)
<https://www.youtube.com/watch?v=YovxoK8Ahz4&index=13&list=PLNjHMRgHS4Ffw7846yApe-qTP1kUrN4RX>
- Organize your nodes (NVivo 11)
<https://www.youtube.com/watch?v=KzLcFA0mWDQ>

Videos for Mac Users

- Run a Text Search query with NVivo for Mac | NVivo How-to Video (NVivo 10)
<https://www.youtube.com/watch?v=816nFkivf3k&index=8&list=PLNjHMRgHS4Ffw7846yApe-qTP1kUrN4RX>
- Getting Started in NVivo for Mac | NVivo Show and Tell Webinar (NVivo 10)
https://youtu.be/w_S7S2_Rkog
- NVivo for Mac Overview (NVivo 11)
<https://www.youtube.com/watch?v=l-qvoGEZoW4=158s>

More can be viewed at

<https://www.youtube.com/playlist?list=PLNjHMRgHS4Ffw7846yApe-qTP1kUrN4RX> (NVivo 10)

<https://www.youtube.com/playlist?list=PLNjHMRgHS4FfTN-GoztTaPLshavAb0NxR> (NVivo 11)

Manual links for Windows and Mac

- NVivo 10 manual for Windows

<http://download.qsrinternational.com/Document/NVivo10/NVivo10-Getting-Started-Guide.pdf>

- NVivo 10 manual for Mac

<http://download.qsrinternational.com/Document/NVivo10forMac/NVivo10-for-Mac-Getting-Started-Guide.pdf>

- NVivo 11 manual for Windows, [Pro and Plus]

<http://download.qsrinternational.com/Document/NVivo11/11.4.0/en-US/NVivo11-Getting-Started-Guide-Pro-edition.pdf> [Pro]

<http://download.qsrinternational.com/Document/NVivo11/11.4.0/en-US/NVivo11-Getting-Started-Guide-Plus-edition.pdf> [Plus]

- NVivo 11 manual for Mac

<http://download.qsrinternational.com/Document/NVivo11forMac/11.4.0/en-US/NVivo-for-Mac-Getting-Started-Guide.pdf>