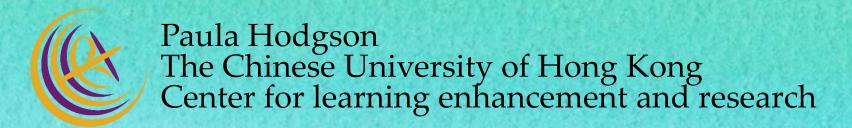
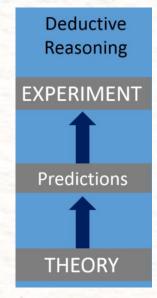


Enabling quality qualitative data analysis with evidence through NVivo for interdisciplinary research (Part II)









Defined/open framework

Inductive Reasoning OBSERVATION Generalizations PARADIGM

Defined framework

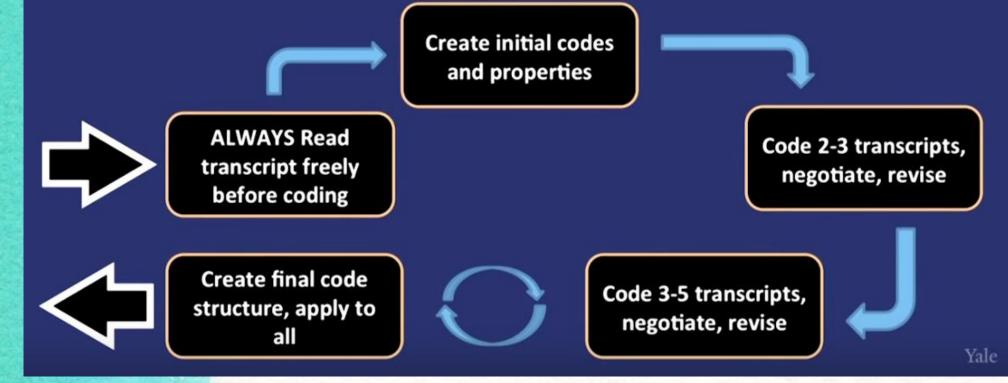
- Working on established framework / theories
- RQs
- Methodologies
- Examining sets of data based on deductive approach
- Comparing current data with established theories

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

Coding is an iterative process

Coding process



Coding method

The Coding Manual for Qualitative Researchers

Johnny Saldaña

Choosing Coding Methods Based on Research Question(s)

	Type of Research Question	Meaning	Examples	Coding Methods (1st Cycle Coding)
	Ontological research question	Related to studying "the nature of participants' realities" (Capturing participants' realities)	 ✓ "What is the nature of?" ✓ "What are the lived experiences of?" ✓ "What is it like being?" 	 Attribute Emotion In Vivo Narrative Process Values Themeing
	Epistemological research question	Related to "knowing and an understanding of the phenomenon of interest" (Understanding phenomenon)	 "How does?" "What does it mean to be?" "What factors influence?" 	 Descriptive Evaluation Magnitude Narrative Process Themeing

Credit: https://www.youtube.com/watch?v=v_mg7OBpb2Y [43 min]

Coding method

Grounded theory: no framework [Inductive approach]

Established framework/theories [Deductive approach]

Deciding on How to Generate and Label Nodes/Codes

Option #1 (Bazeley & Jackson, 2013)

- 1. Identify relevant information in the data
- Assign a word or phrase (a concept) that best represents the relevant information
 - ✓ Note: Making sure it is consistent with the research question
- Document why the information or node is important (i.e. taking note of your thoughts about the code – using 'memo' option)



Credit: https://www.youtube.com/watch?v=JPpETphj5F4 [12.30 min]

Coding method

Inductive approach

Purely inductive, grounded method

- Participant experiences drive analysis
- Develop codes de novo line by line
- May employ constant comparisons
- Limits possibility of researcher forcing a preconceived result

Yale

Credit: https://www.youtube.com/watch?v=opp5tH4uD-w&t=103s [7.12]

Themes are unifying concepts or statements

Coding

- Identify and characterize:
 - Patterns of behaviors
- Group interactions
- Individual perceptions

Coding with Word

[Code description]

	СО	DE	DEFINITION					
PAF	RT1-F	RES&DEST&	FREEWAY					
1	AU	то	How much access does the interviewee have to	private automobiles?				
2	SU	PPORT	Any kind of help that the interviewee receives to	o help with transportation				
3	REC	CIPROCITY	Any kind of exchange relationship related to transportation For all the places the interviewee traveled to "yesterday," code all destinations and all trip purposes					
4	PU	RPOSE						
5	FW	Υ	How often and/or when the interviewee travels	s on the freeway				
Maria:		(interrupting)	Right now, um, we have one car right now	(A) A0110750 III				
Moniq	ue:	Uh-hum		Cathy 2/8/10 7:56 AM Comment [1]: AUTO				
Maria:		get another of so, he has to certain (inaud	es I would share my sister's car right now. Cuz we're trying to ar. Um, so, as far as his work, he is always driving everywhere. His van, he has a van, he has a painters, he's responsible for lible). Um, so he's always like commuting to like different round the bay area. That's his job a lot. So he's, yeah, thats	Cathy 2/8/10 8:33 AM Comment [2]: SUPPORT Cathy 2/8/10 7:59 AM Comment [3]: AUTO Cathy 2/9/10 10:11 AM				

Credit: https://www.youtube.com/watch?v=BnDUARfEu5I [12.28 min]

Coding with color in Word

Coding >
Forming category [themes] >
Forming framework/theory

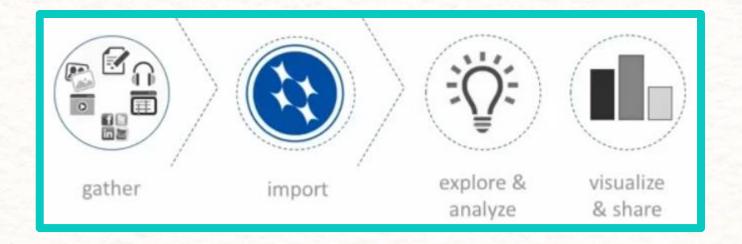
TEXT	CO	DE	CATEGORY	THE	ORY
Man #3: And that's when I thought it was went. Woman #2: Are you saying that's the first time you noticed? Really? Child #2: Where's my ketchup? Man #1: What's wrong with him not	code	code	category		
noticing? It's just a small thing. Woman #2: I think it's kind of small, but also kind of big. Me: It's important to realize any differences that	code	code		CAL	JSE
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; Il like ponies. Man #5; If you all think that's important, what	code	code	category		
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	code	code		EFFECT	EFFECT
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 tetchup? Man #1: What's wrong with him	code	code	category		
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 malize any differences that	code	code	guy		
exist. Man #4: lagree 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	code	code			
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.	code	code			

Credit: https://www.youtube.com/watch?v=phXssQBCDls

Using NVivo to code

Importing Word
Importing dataset e.g. Excel

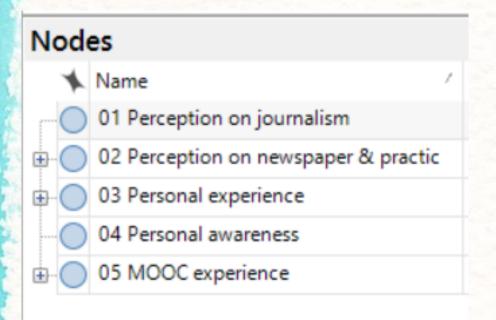
Coding with free node
Coding with tree/child node

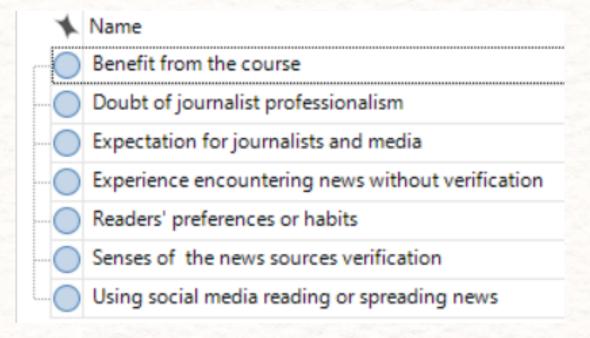


Importing data

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

Themes
[Tree node: Parent node with child nodes





Connecting coding structure with research question

An example

Code Structure: Understanding the Experiences of Immigrant Physicians

Research Question: What are the challenges and advantages that international medical graduates (IMG) physicians face in providing patient care within the US healthcare system?

- 1. Support
 - a. Colleagues/Peers
 - b. Mentors
 - c. Training/Curriculum
- 2. Medicine is different in the US/Focus on Professional Experiences
 - a. Culture of medicine is different (technology, million-dollar work-ups)
 - b. Patient-Physician interactions (pt autonomy, decision-making, respect)
 - c. Authority relationships
- 3. Bias/Discrimination
 - a. Professional opportunities/promotions/advancement
 - b. Subjected to jokes/ridicule/stereotypes
 - c. Feeling of being taken advantage of because you are an IMG
 - d. Patients/Families

Credit: https://www.youtube.com/watch?v=opp5tH4uD-w&t=103s [4.18]



Maps in NVivo

NVivo 11 Pro: Mapping (models)

• https://www.youtube.com/watch?v=FP0BgbAj5K8x

Mind map: Mind maps in NVivo- a way of creating your Node tree

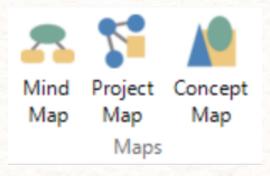
https://www.youtube.com/watch?v=f7go_KC72FA

Concept maps

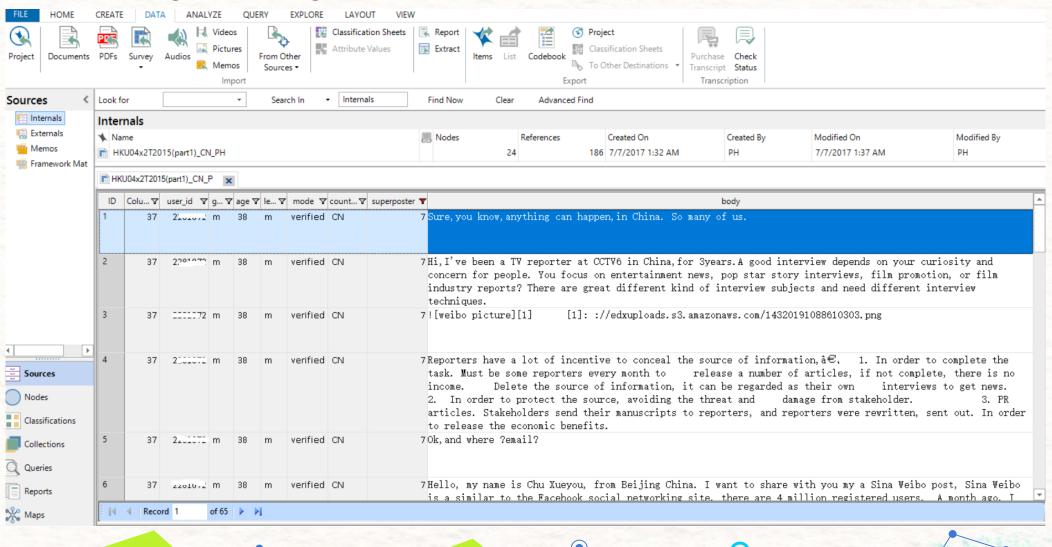
https://www.youtube.com/watch?v=3R5gZKdOJD4

Project Maps

• https://www.youtube.com/watch?v=4xV4H0WF_cg

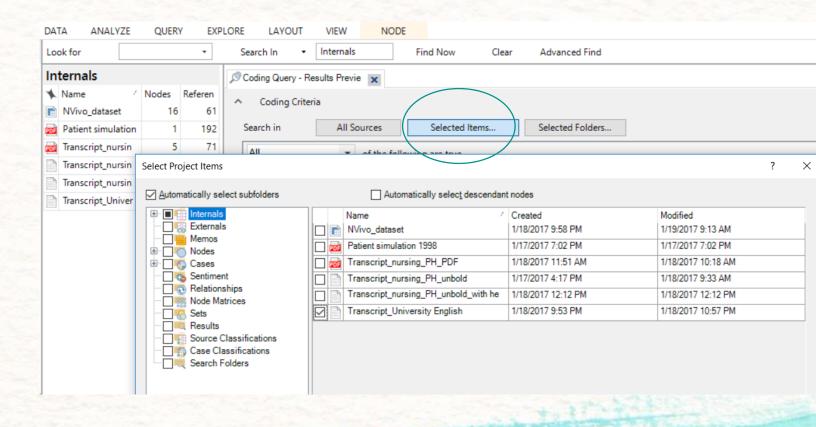


Making coding from the source file



Making query after coding (1)

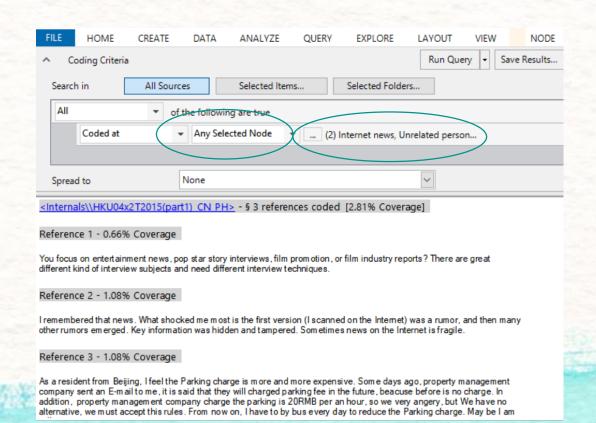
Search in
'Internal'
source or
'Selected Items'



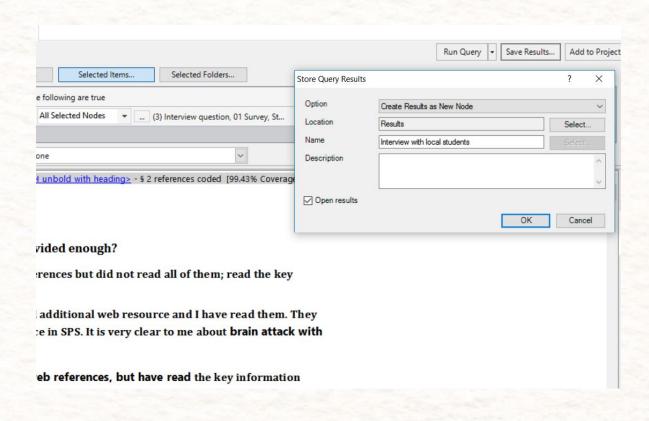
Making query after coding (2)

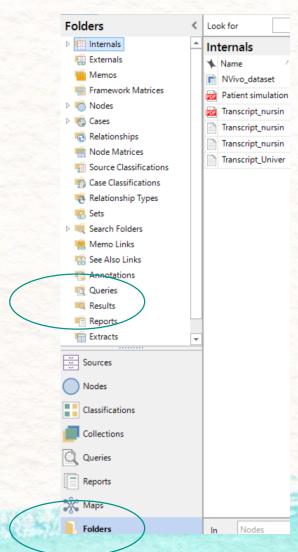
Select 'Any Selected Nodes' & Run Query

Source: https://www.youtube.com/watch?v=N RSRIVBJD4I



Save results in 'Result folder' or as new node





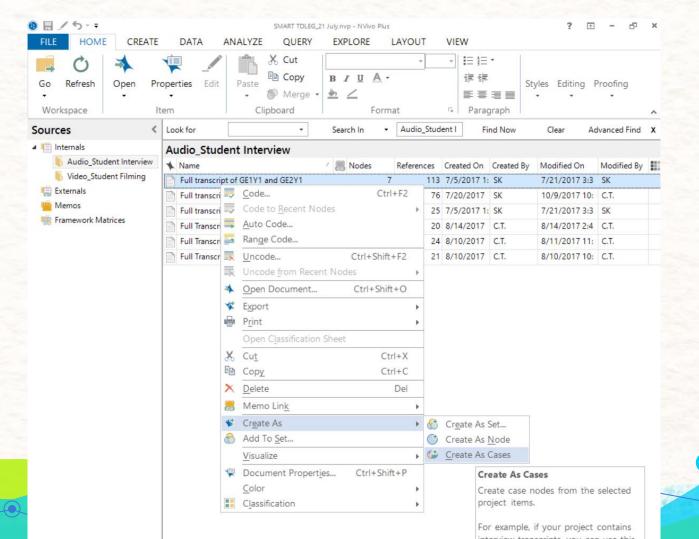
Coding: What's NEXT?

Paper drafting with themes with supporting evidence, i.e. including data with 'direct quotes'.

Exploring cases...

What is a case?

Creating case from source file [Word]



Defining cases:

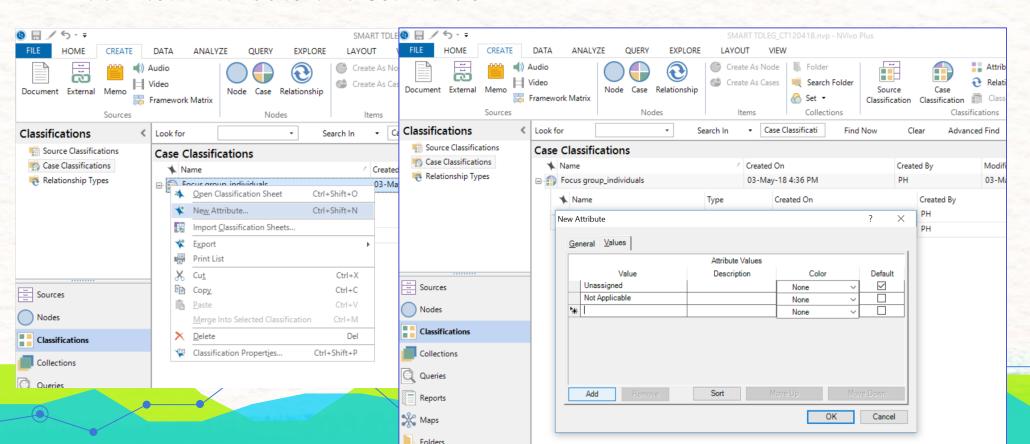
Single individuals

Case as Category

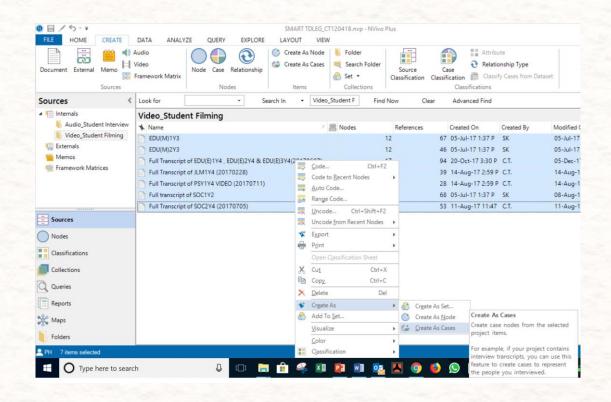
- Year groups (e.g. freshman, final year)
- Stakeholders (e.g. hierarchy or responsibilities)
- Organizations (e.g. NGOs, university)
- Sectors (e.g. public, private)
- Geographical (e.g. countries, regions)

Setting case classification

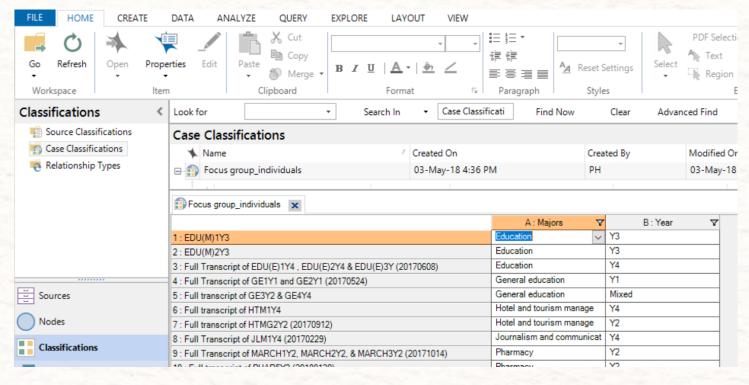
- Create > Case classification
- Add 'New Attribute' and set 'Value'



Create as Cases from source files > Assign case location to the selected classification



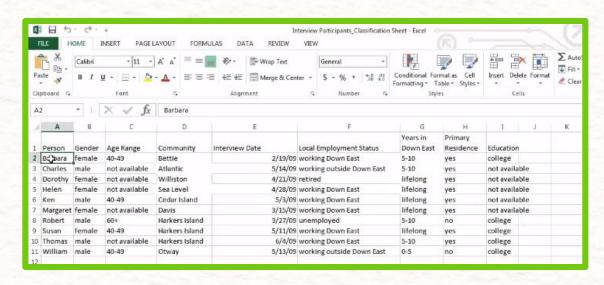
Assign 'Value' to each case

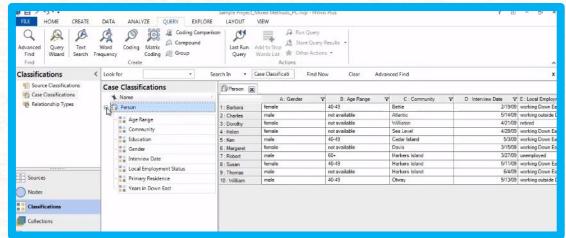


Demo:

https://www.youtube.com/watch?v=6tu Y-4HYrQk&t=1801s [1:10~1:14]

Import case attributes [with many demographic data] from Excel



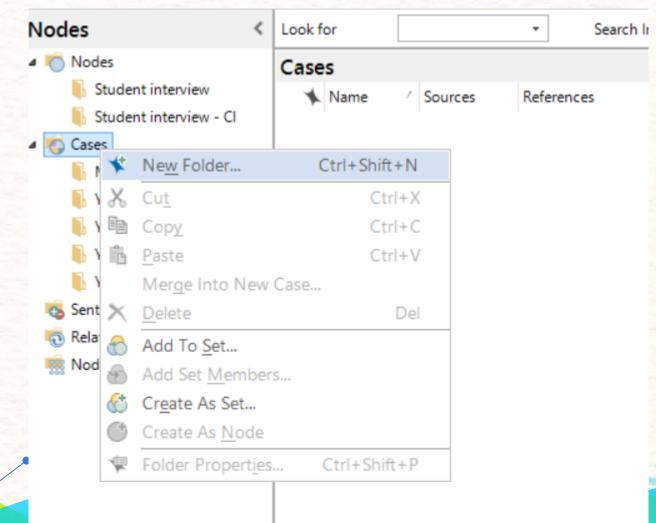


Credit:

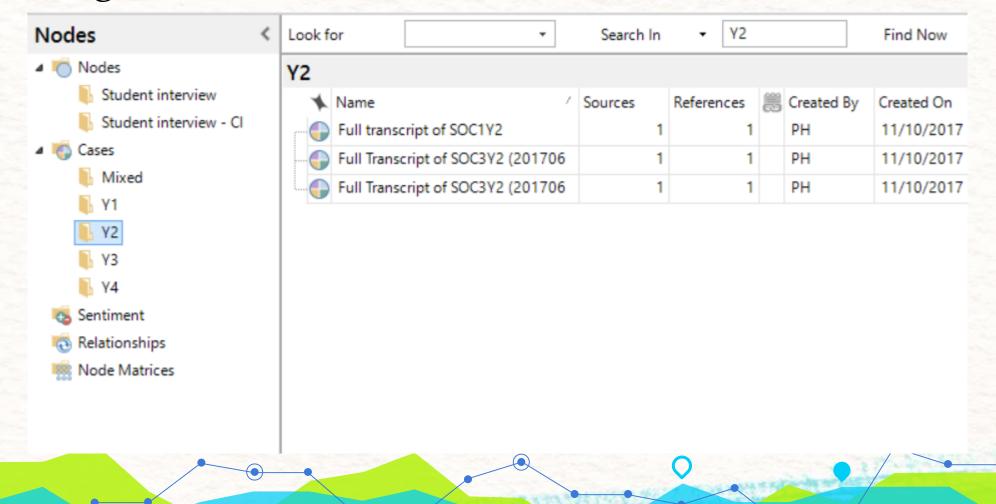
https://www.youtube.com/watch?v=I9 YIHXrh88&t=1743s [9.24-13.24]

Case as 'category'

Create 'Category: Year' folder in 'Cases'

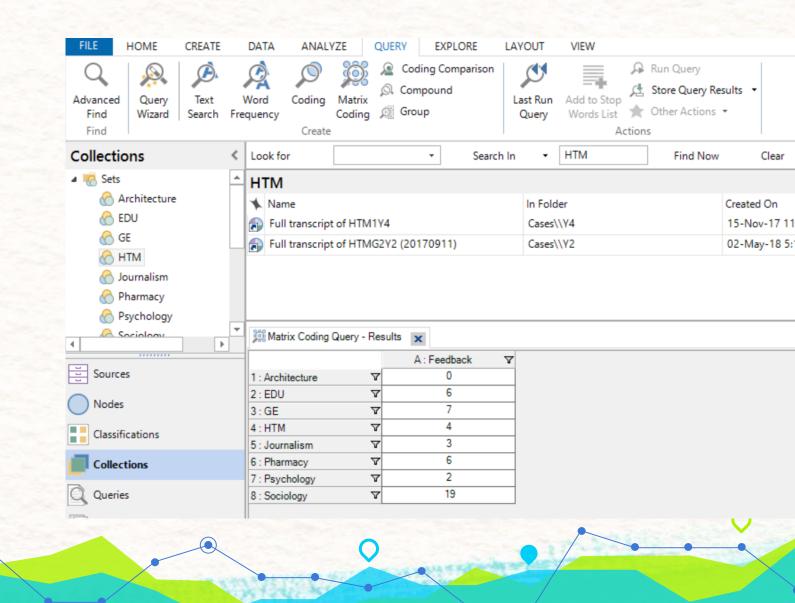


Setting source files to folders in 'Case folder'



Set Cases to Set

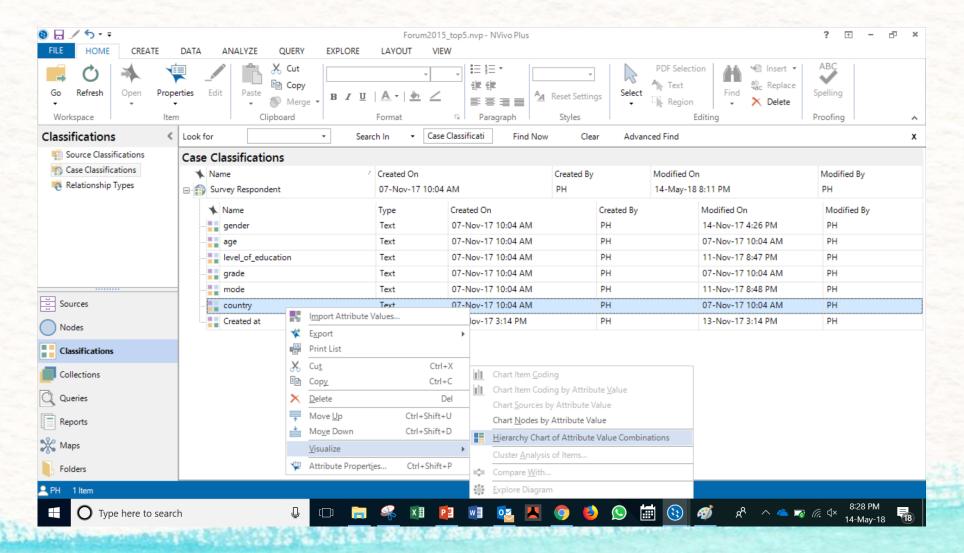
- Other sorting of groups, e.g.
 - -Age range
 - -Specialty
 - -Gender
 - -Local students
 - -International students



Working with Excel [Survey: demography data and open-ended responses]

What would you do with hundreds of responses in an Excel?

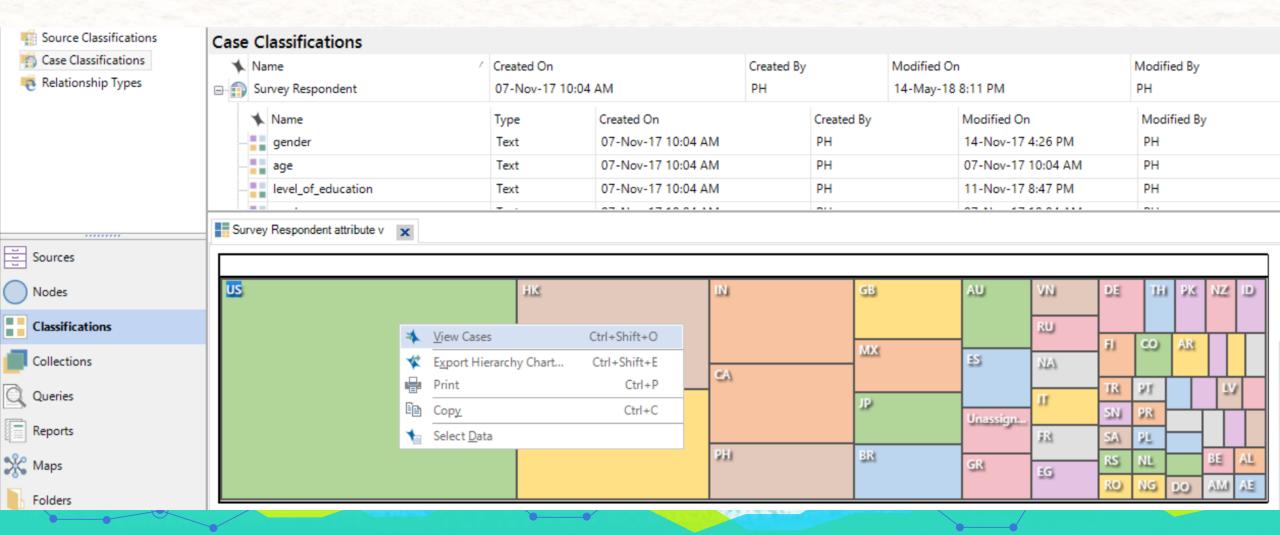
View Case Classifications



US	CN.	GB	MX	,	P		BR	
		AU	RU	Lill	п	313	E	S
	IN	52	DE	60		Д		
	CA\	Unassigned	THI PK	TR	Щ.	A) RS		21
HK	PH	GR	NZ D	NL NL	GH	_		33
	×11	VIVI	31	MIN	-	-		ΑE

STATES TO THE PARTY OF THE PART

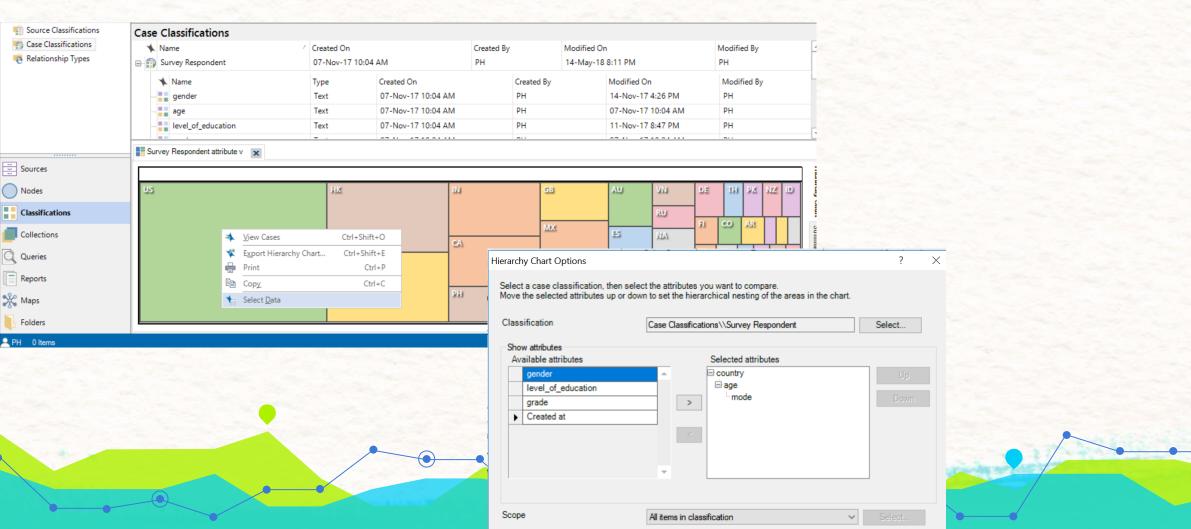
View selected Cases [e.g. the country]



View case classification of the chosen country

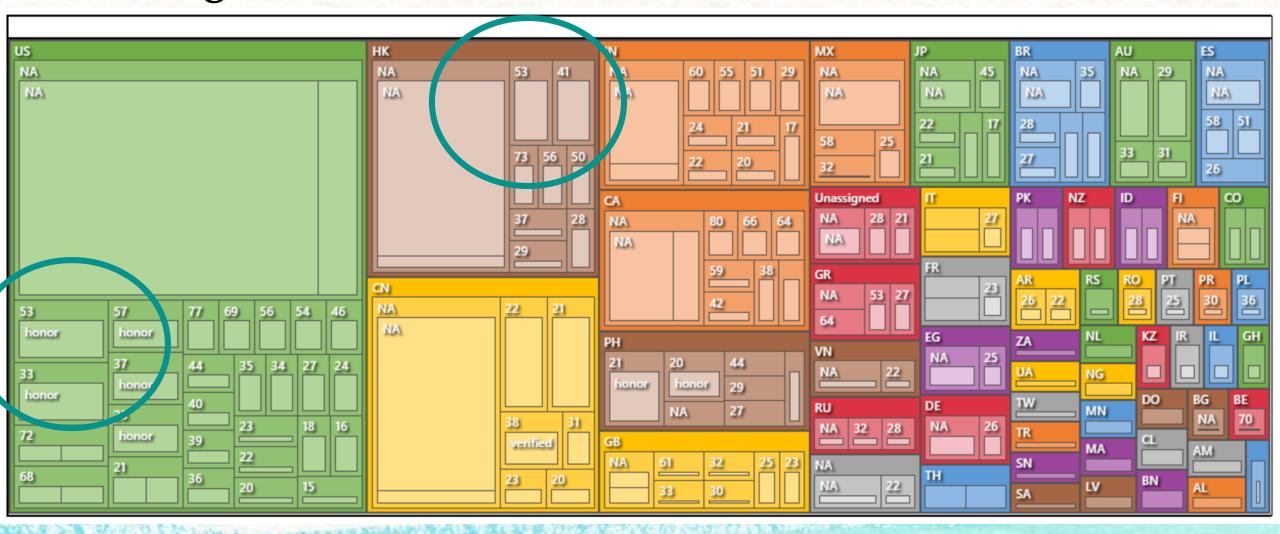
Survey Respondent attribu	oute v Survey Respond	dent 🗶				
	A∶gender ▽	B∶age ▽	C:level_of_education マ	D: grade ▽	E:mode ▽	F : country
1 : 1046676	Unassigned	68	hs	0.82	verified	US
2:1049561	Unassigned	37	b	0.66	honor	US
4:1102295	Unassigned	36	m	0.88	honor	US
9:1374237	Unassigned	33	b	0.79	honor	US
10 : 1398849	Unassigned	54	other	0.7	honor	US
15 : 1501372	NA	NA	NA	NA	NA	US
17 : 1593195	NA	NA	NA	NA	NA	US
18 : 1606505	NA	NA	NA	NA	NA	US
19 : 1607746	NA	NA	NA	NA	NA	US
24 : 1803610	NA	NA	NA	NA	NA	US
25 : 1865037	NA	NA	NA	NA	NA	US
26 : 1948405	Unassigned	72	m	0.74	verified	US

View selected Data [select case classification e.g. age, mode of study]

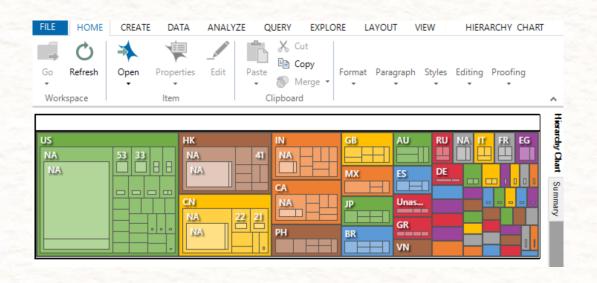


What is the age group that complete the MOOC in the countries?

Age US: 53, 33, 57; HK: 53, 41

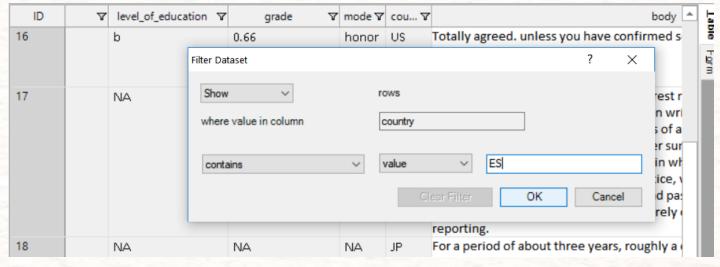


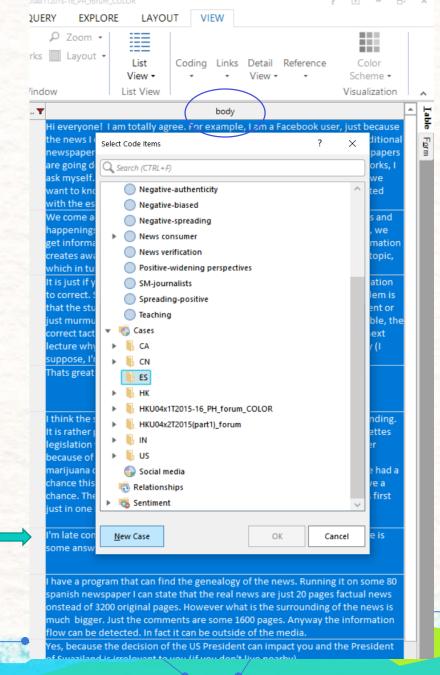
Hierarchy chart & Summary



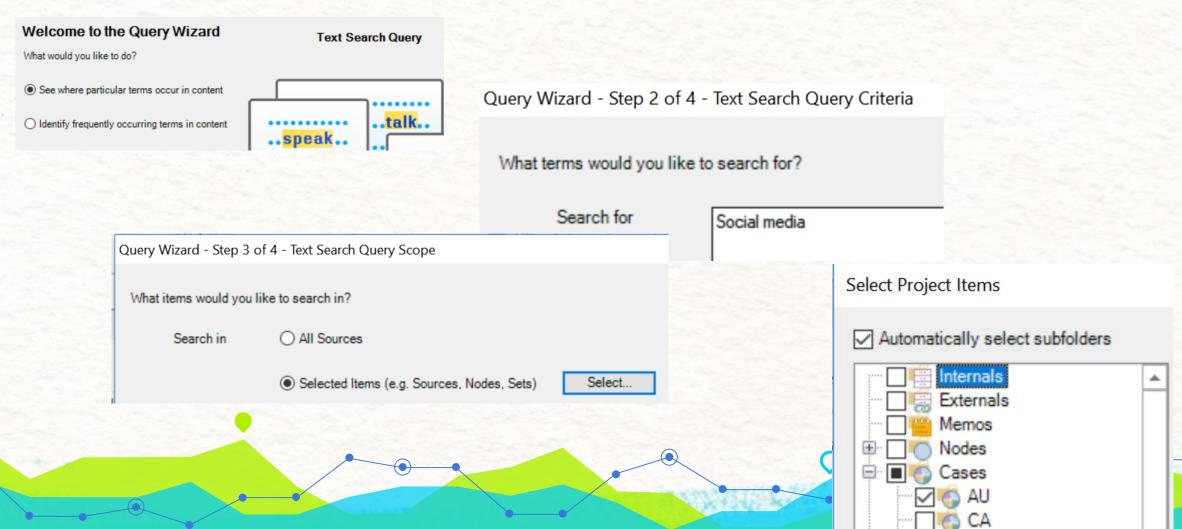
FILE	HOME	CREATE	DATA	ANALY	ZE Q	UERY	EXPL(DRE L	AYOUT	VIEW	HIER	ARCHY CHA	ART
Go ▼ Works	Refresh space	Open	Properties tem	Edit	Paste C	S N	opy 1erge 🔻	Format *	Paragra ▼	aph Styles •	Editing *	Proofing •	^
country		age	mode		Number	of scop	ed items	which h	ave that	particular at	tribute va	lue comb	
US		NA	NA									38	Hierarchy Chart
HK		NA	NA									15	hy C
CN		NA	NA									14	
CA		NA	NA									5	S
IN		NA	NA									5	Summary
US		NA	honor									5	3
MX		NA	NA									4	
CN		22	honor									3	Ţ

Create case from an Excel (e.g. filter country) 1

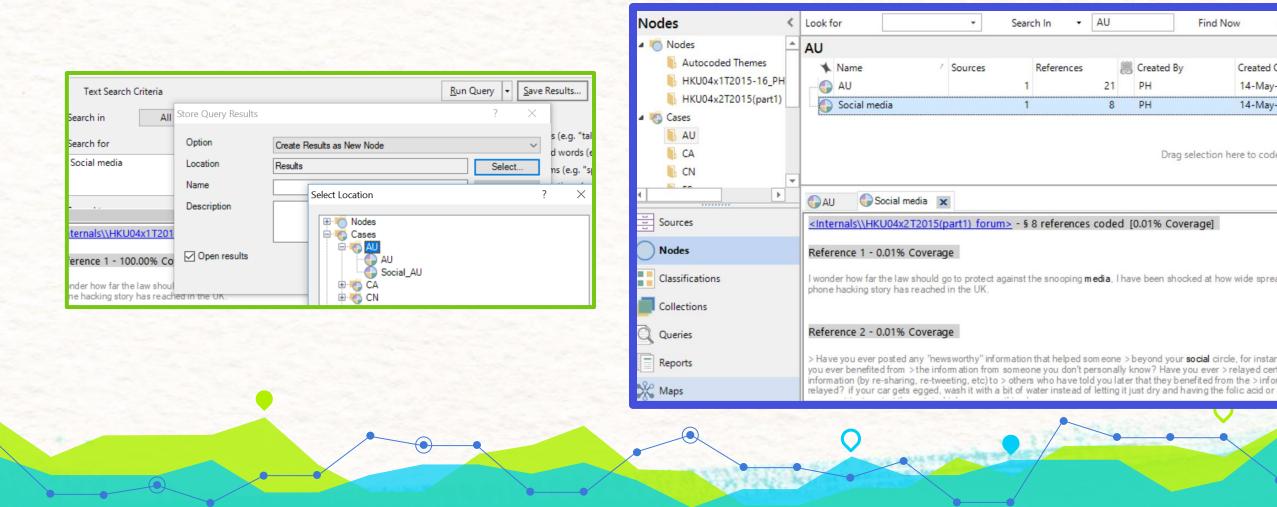




Create query wizard in a case: "Social media" (e.g. filter country) 2

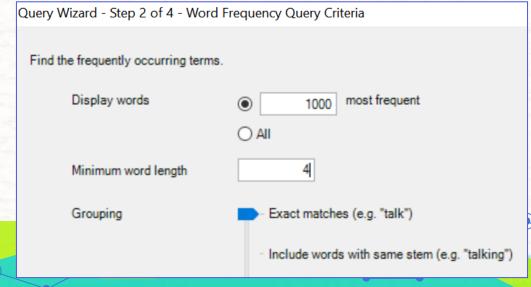


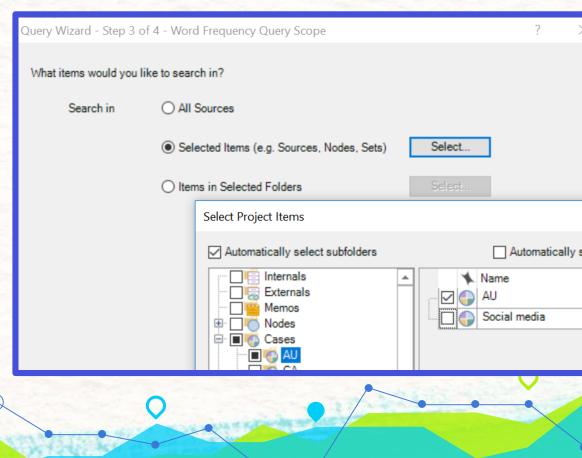
Create query wizard in a case: Text with "Social media" (e.g. filter country) 3



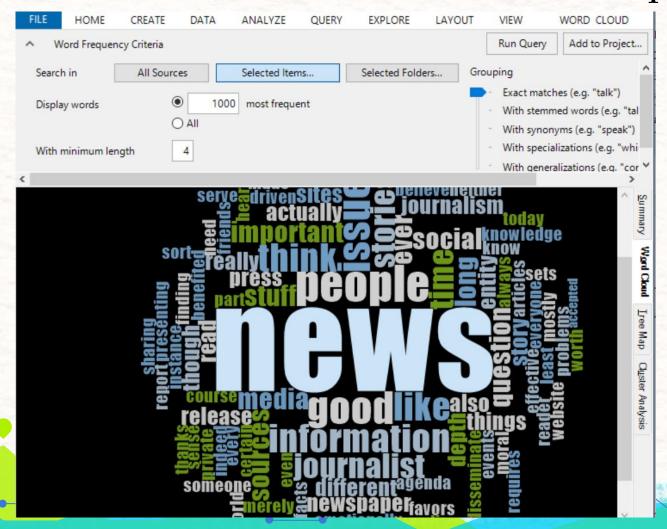
Create query wizard in a case: Identify frequently occurred terms (e.g. filter country) 1





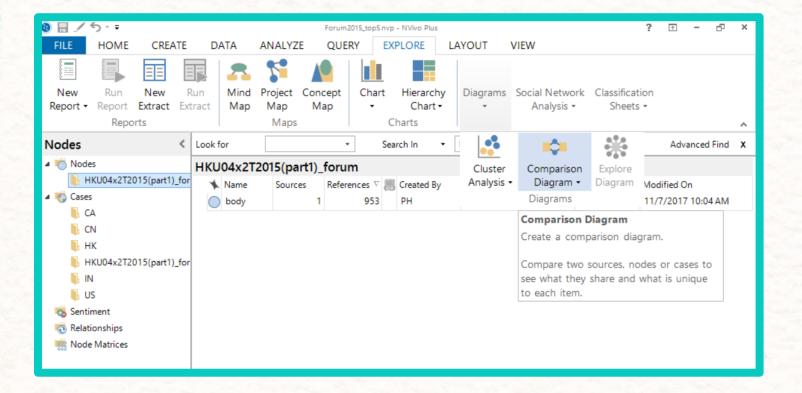


What does the words relate to our research questions

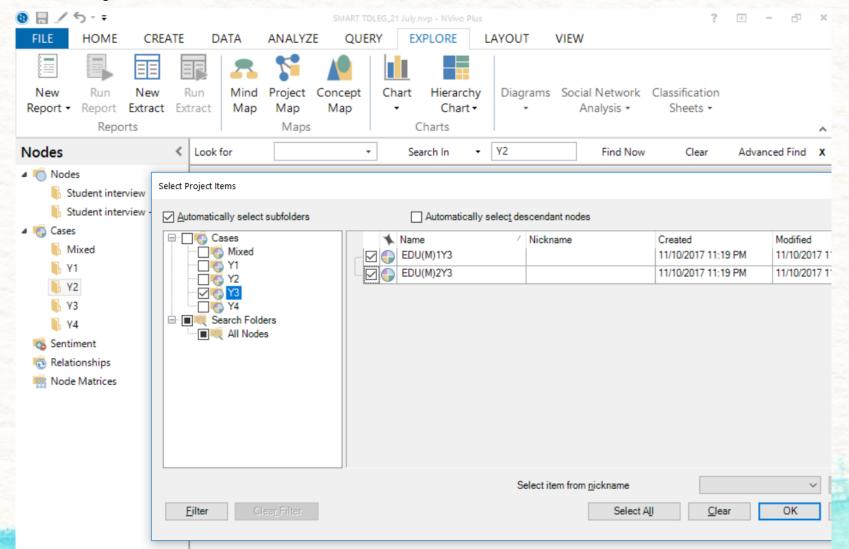


Query
Presence vs absence
[Addressing patterns of prevalence, differences between cases; between cases and literature]

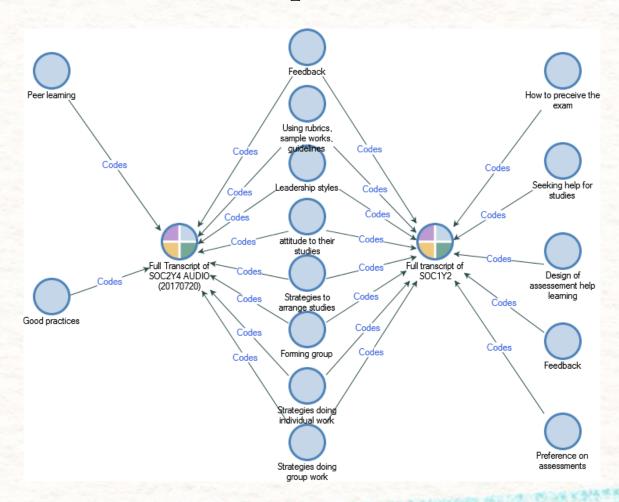
Comparing cases



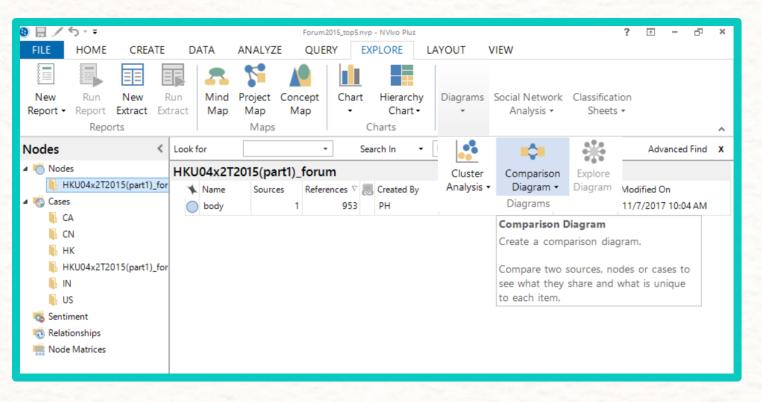
Comparing 2 cases from the same year group: identifying commonality and differences of individuals



Comparing 2 cases: [Sociology Y4 with Y2 student] identifying commonality and differences across year group from the same discipline

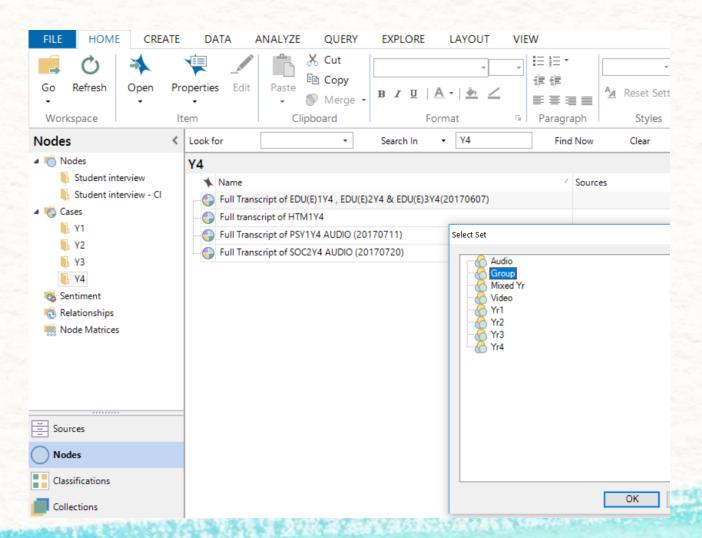


Comparing cases

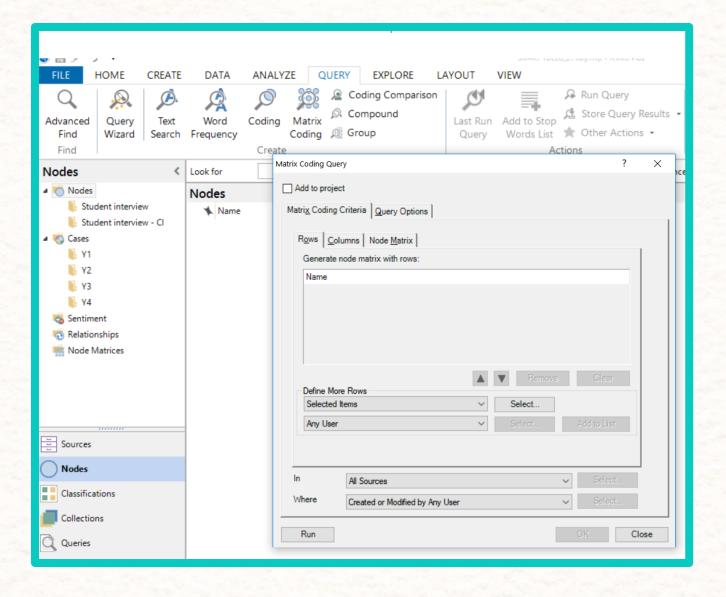


Comparing 2 ITEMS
sources
nodes
cases

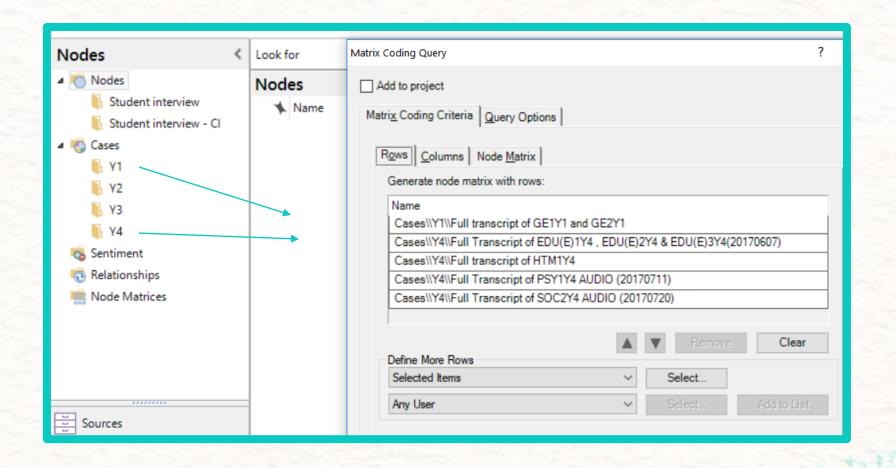
Create sets which holds more than single case (Yr 1, 2, 3, 4 student)



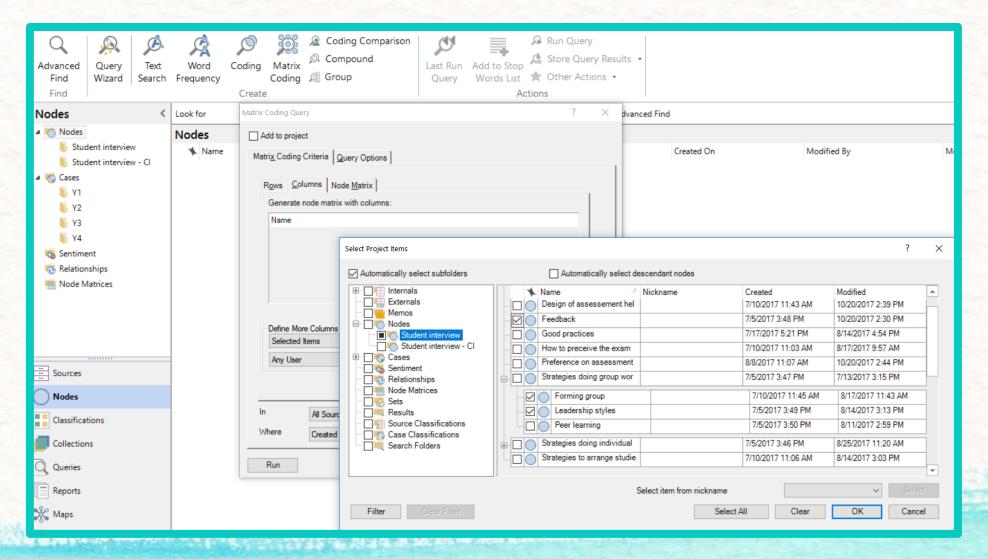
Query in Matrix Coding



Set cases as rows > Add to list



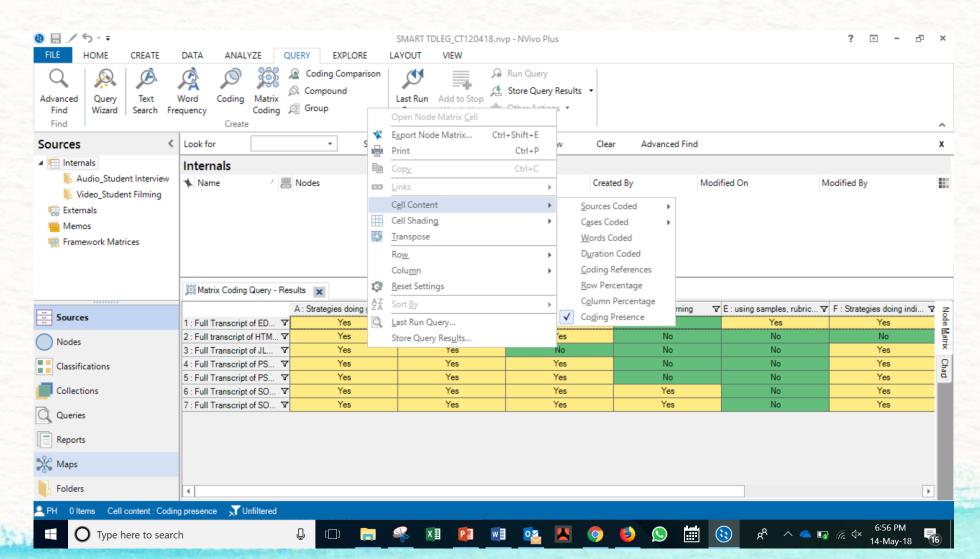
Set selected nodes as column > Add to list



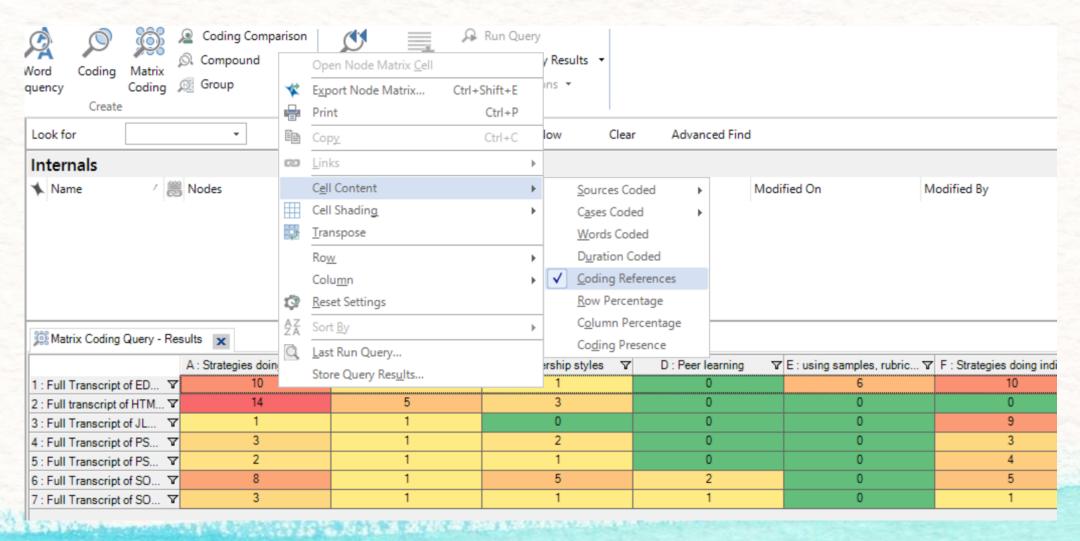
Addressing research questions: Which Course expresses seeking help for studies? Which Course has more experiences in using rubrics?

Matrix Coding Query - Results									
		A : Full transcript of GE1	▼ B : Full Transcript of E	ED 🗸 C : Full transcript of HT	D: Full Transcript of PS	▼ E : Full Tran	script of SO ▼		
: Feedback	V	15	0	0	0		3		
: Forming group	V	0	0	5	1		1		
: Leadership styles	7	0	0	3	2		1		
: Peer learning	Y	0	0	0	0		1		
: Seeking help for studies	V	16	0	0	0		0		
6: Using rubrics, sample works, guidelines	Y	10	0	0	3		1		
			A STATE OF THE STA				A. Full tie	enscript of G	E1
			1.1	Feedback		V		15	
		2:	Forming group	Y		0			
			3:	Leadership styles	V		0		
			4:	Peer learning		7		0	
* *			5:	Seeking help for sto	udies	V		16	
				Using rubrics, sam		nes 🏻		10	

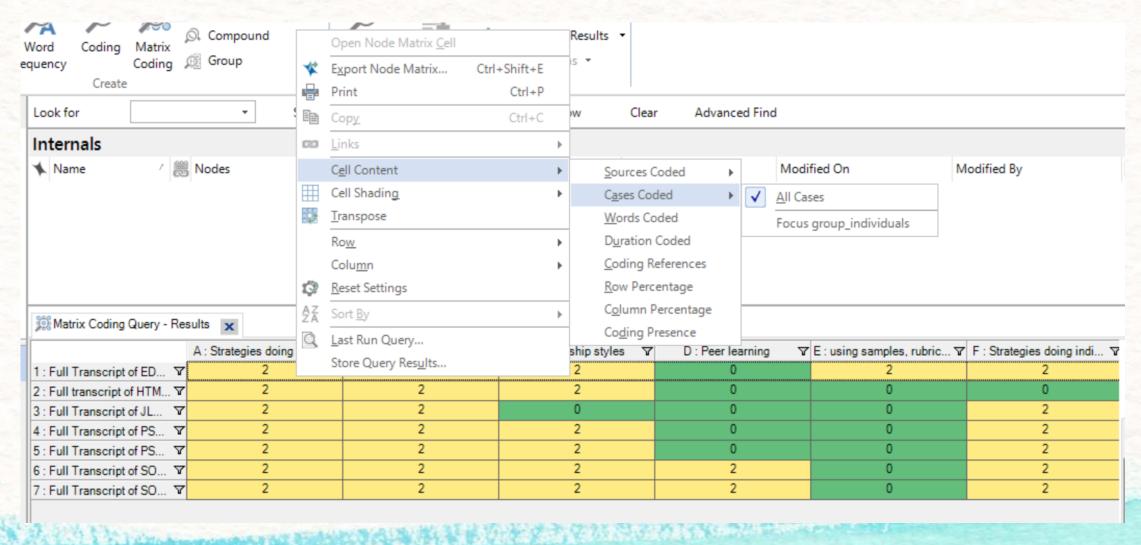
Presence/absence [Yr 4: Coding group project-individual work



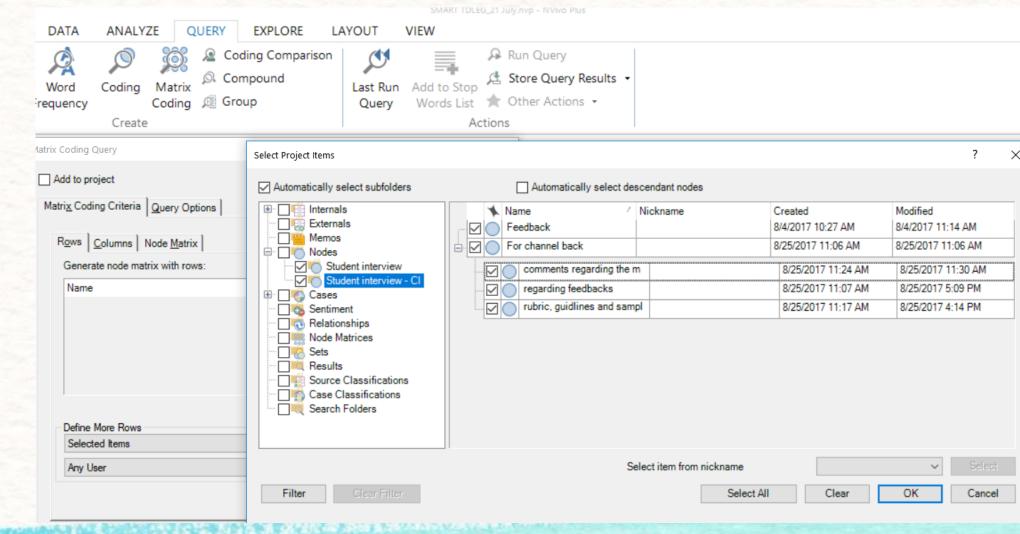
Cell content: Coding references



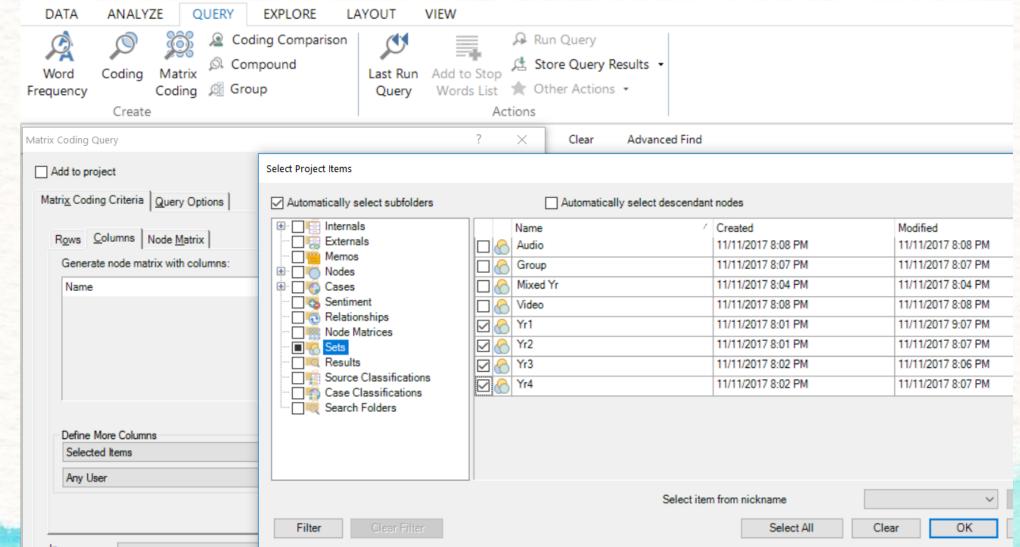
Cell content: Cases coded



Comparing sets with coding (1)

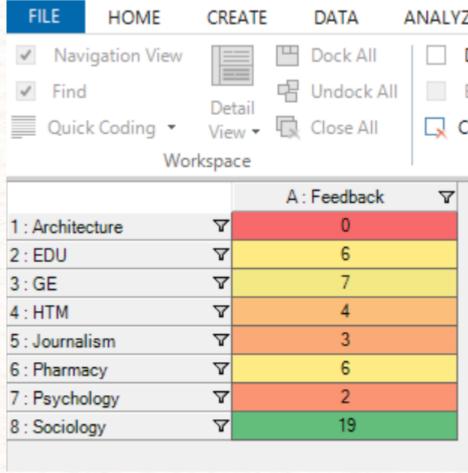


Comparing sets with coding (2): Select Years/Discipline as columns



Cell shading





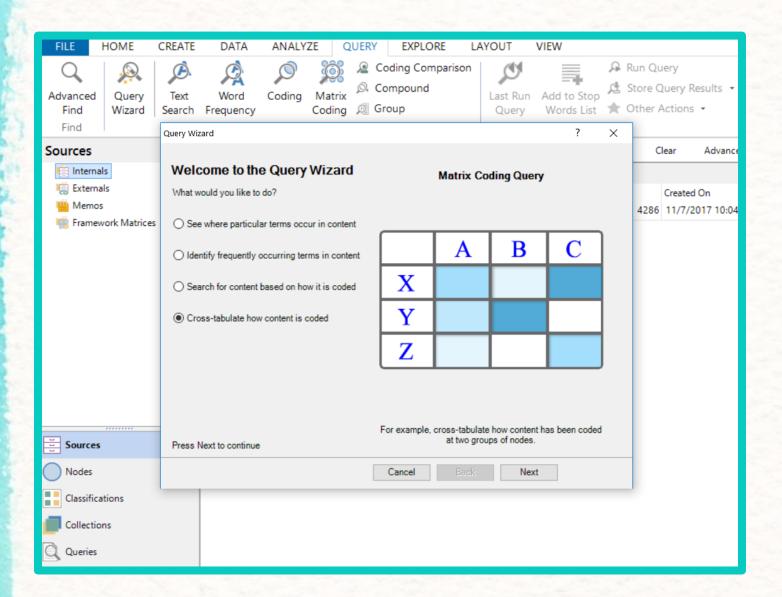


Addressing research questions:

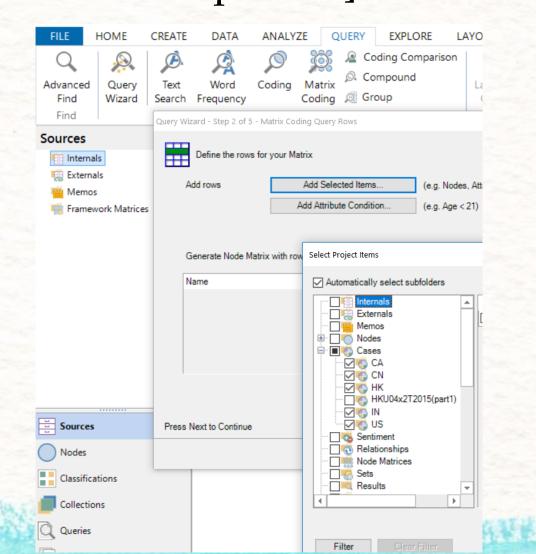
Which Year group seek strategies when doing individual work? Which Year group has adopted varieties of strategies in doing group work?

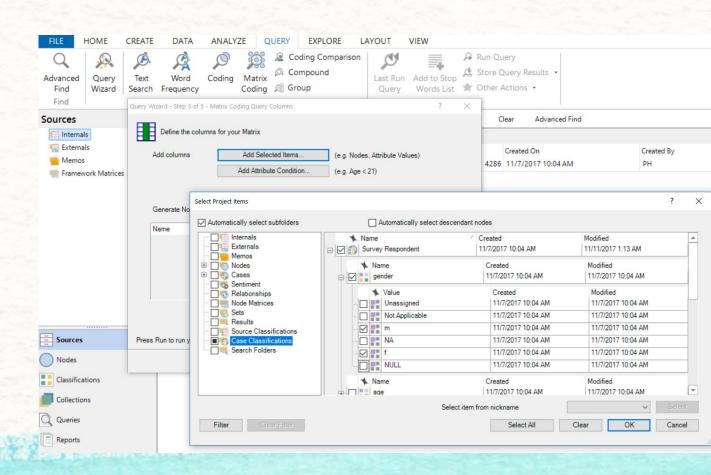
		A:Yr1	V	B:Yr2	Y	C : Yr3 7	D : Yr4	7
1 : attitude to their studies	V	2		2		3	10	
2 : Design of assessement help learning	7	11		1		1	1	
3 : Feedback	7	15		14		5	10	
4 : Good practices	V	0		0		0	4	
5 : How to preceive the exam	V	0		5		0	5	
S: Preference on assessments	Y	0		1		3	1	
: Strategies doing group work	Y	0		8		0	31	
3 : Forming group	Y	0		4		0	10	
): Leadership styles	V	0		4		0	12	
0 : Peer learning	Y	0		0		0	3	
1 : Strategies doing individual work	Y	42		10		7	21	
2 : Seeking help for studies	Y	16		3		0	0	
3 : Using rubrics, sample works, guidelines	V	10		4		5	17	
14 : Strategies to arrange studies	V	0		6		0	14	

Query wizard



Select rows [Cases] and columns [Survey closed responses]

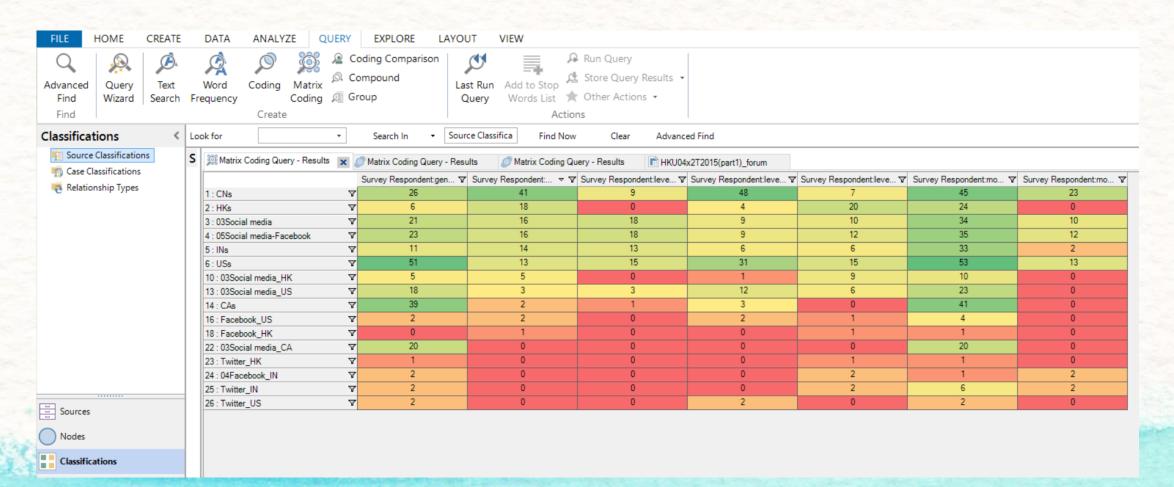




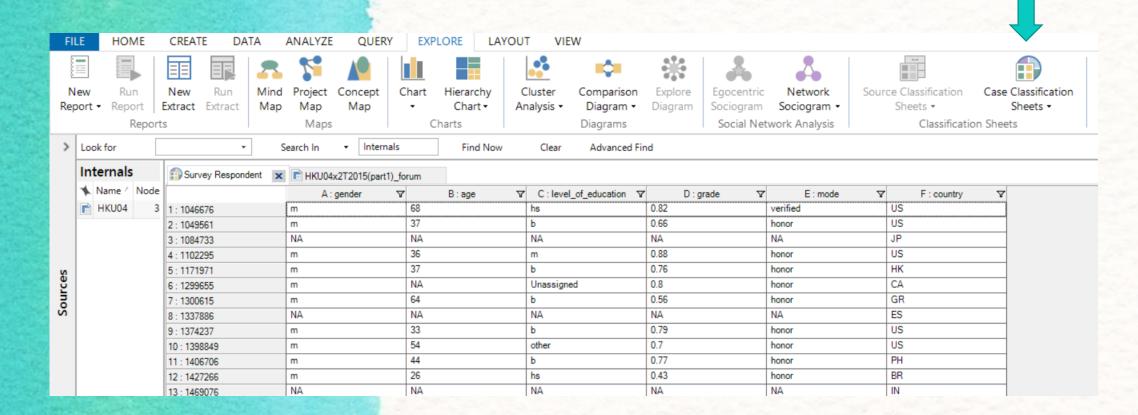
'Social media' with countries with survey classification

Research questions:

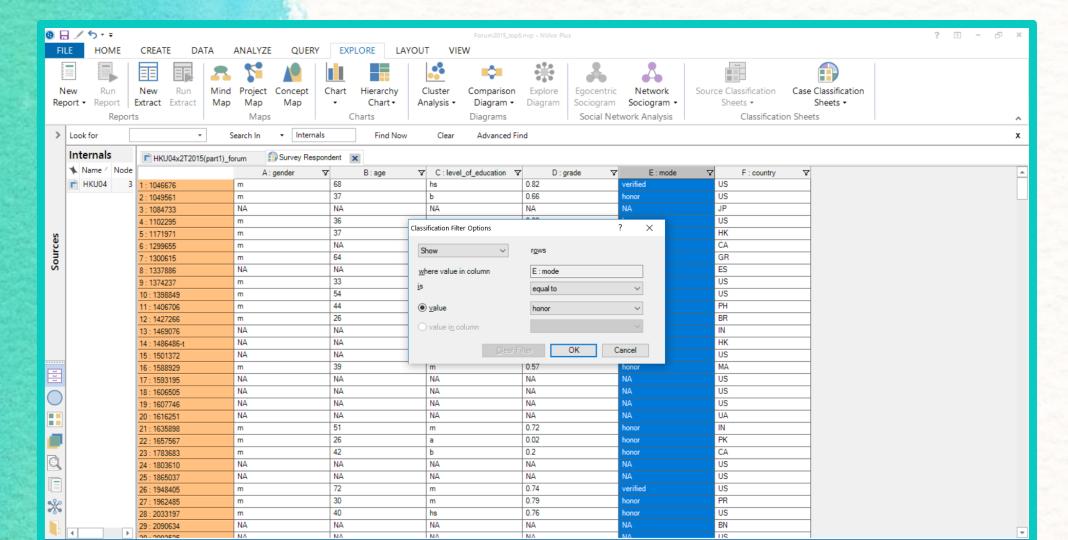
Which country has got the highest number of male comments? Which country has got the highest number of master graduates contributing in the forum?



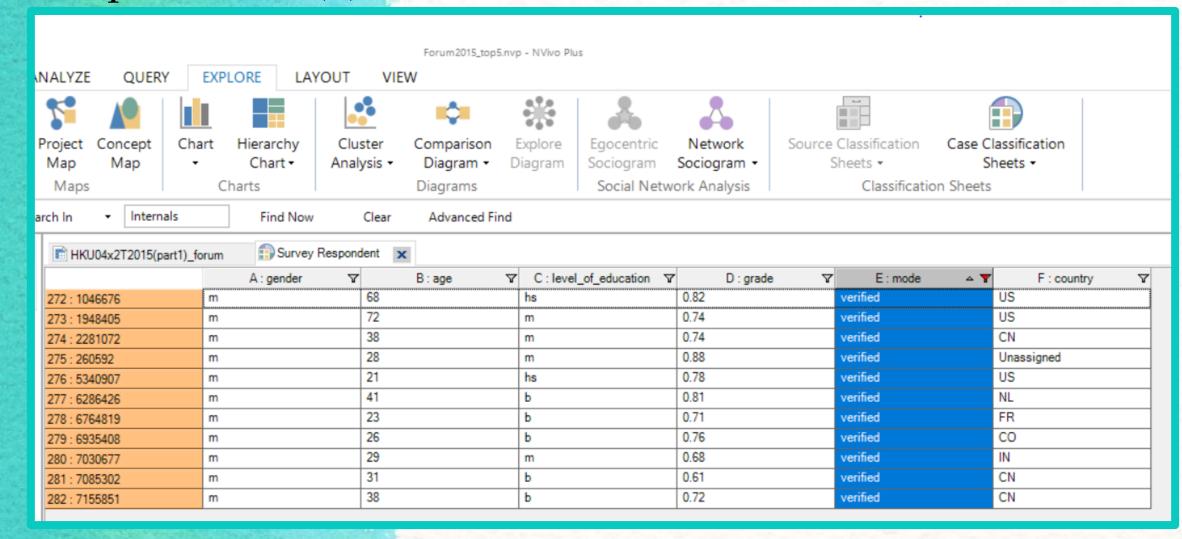
Survey cases

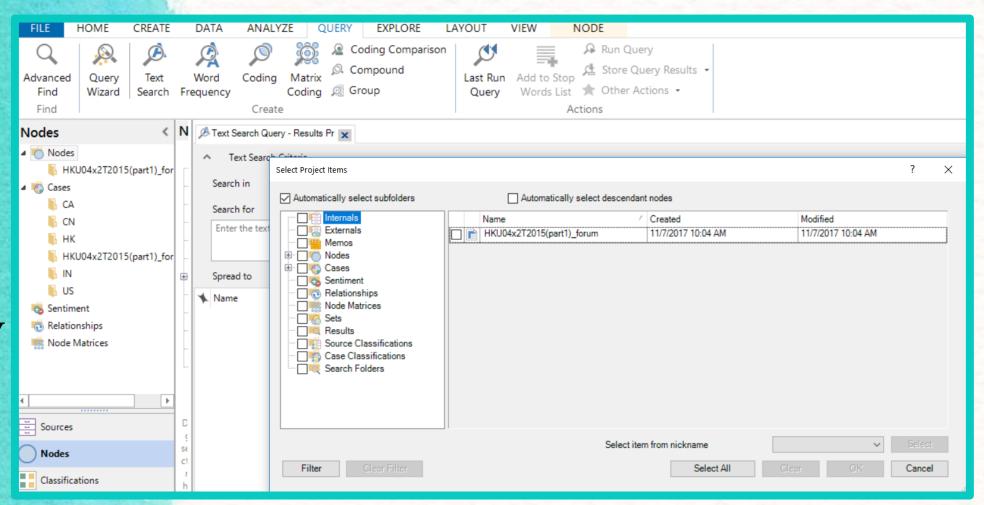


Filter parameter (1)



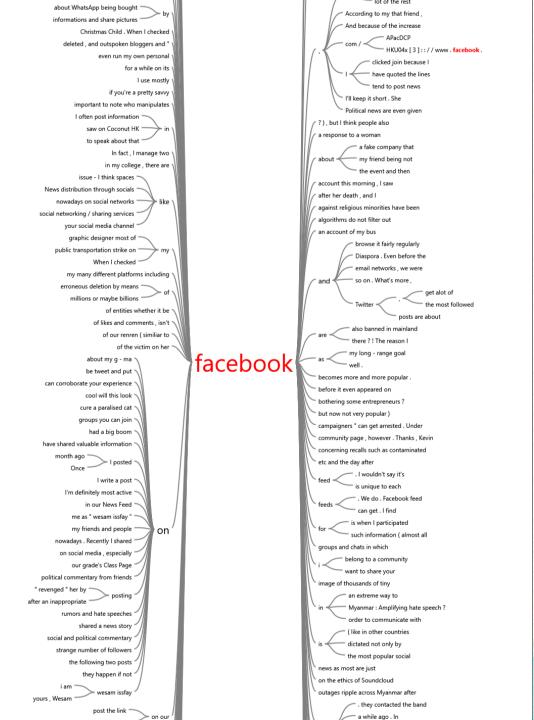
Filter parameter (2)



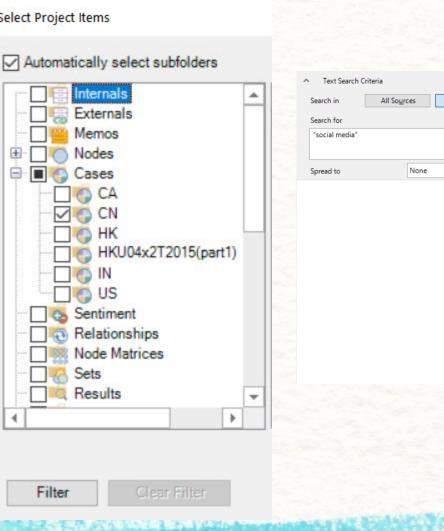


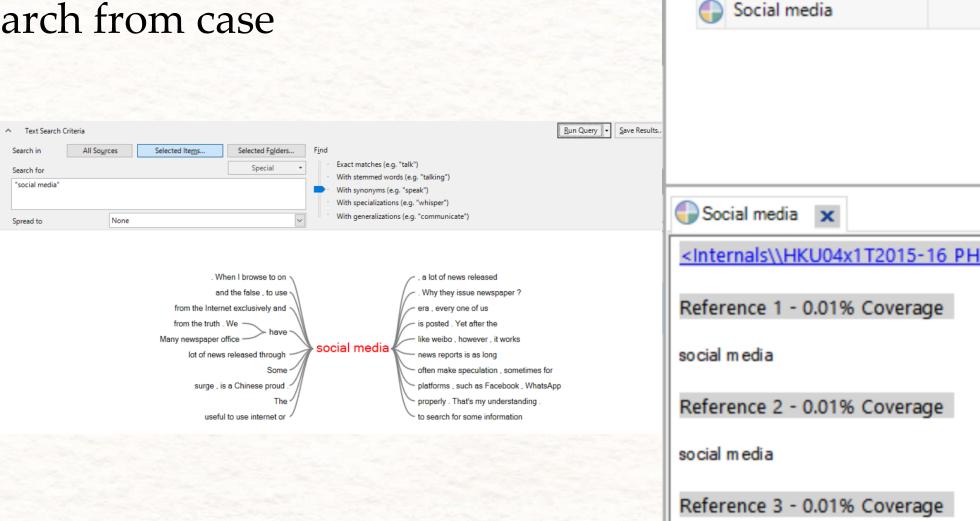
Text query

Text search from source



Text search from case



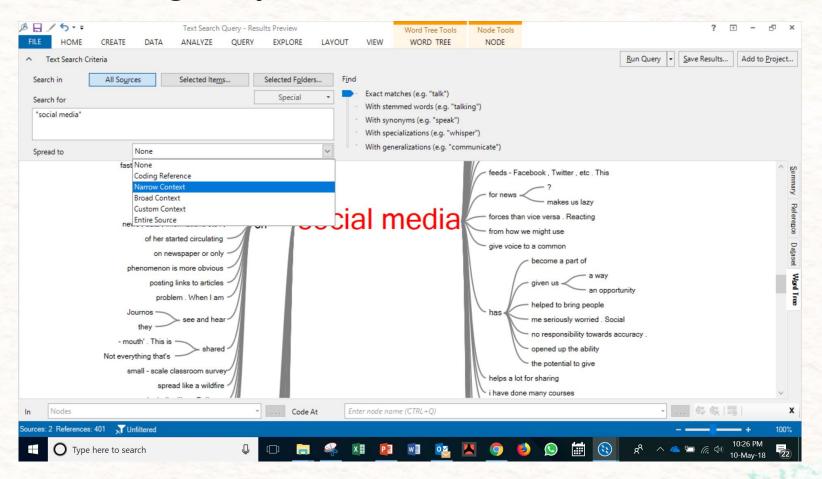


Cases

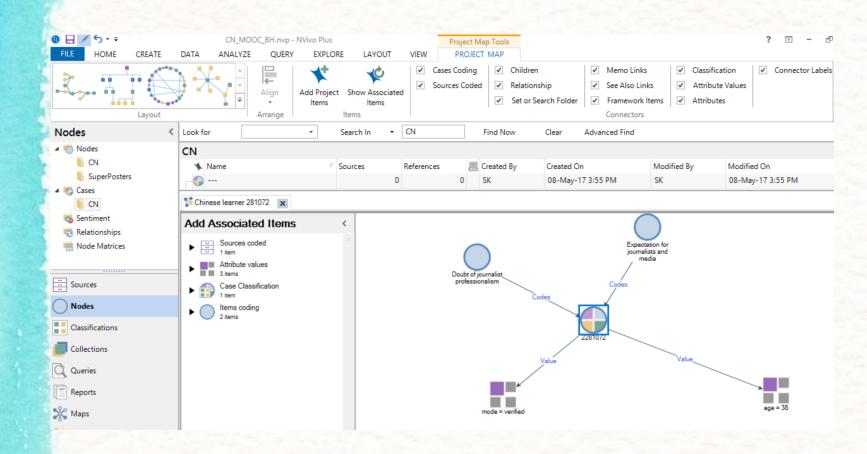
Name

Source

Extend coding 'keyword' with 'Narrow Context'



Exploring associated items from a single case [project]

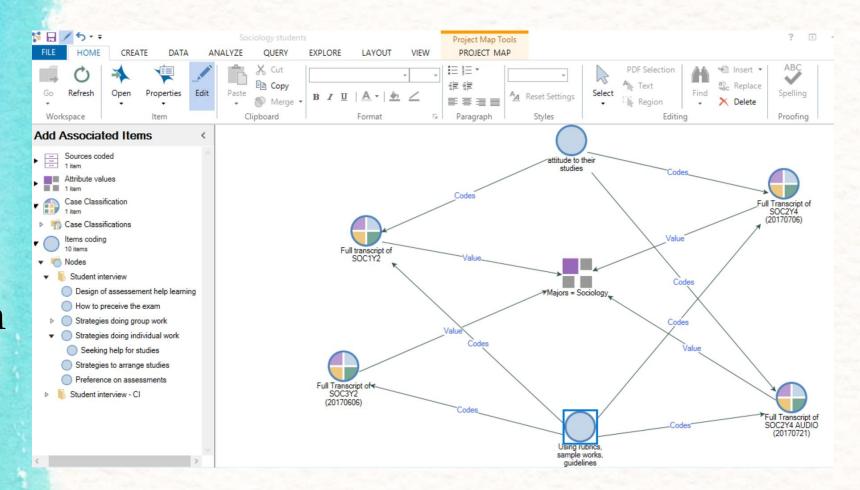


Demo. Steps:

https://www.youtube.com/watch?v=uat8Pe5kGMI
[51 min>]

Exploring associated items in a classification

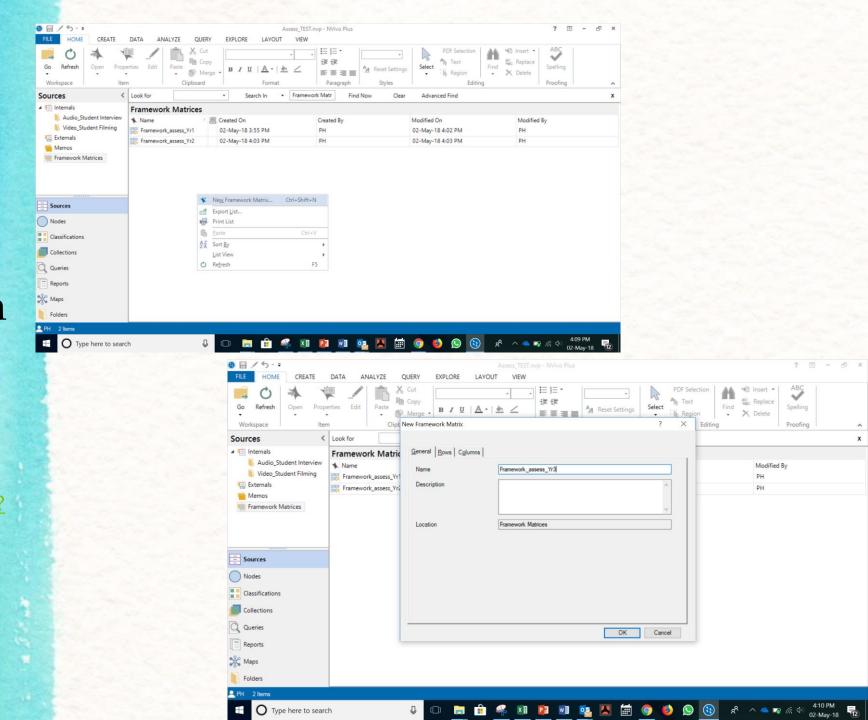
Majors in sociology: Yr 2 and Yr 4 [nodes addressed]



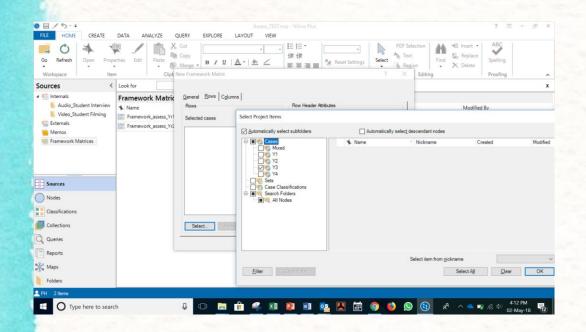
Framework from source: name, select rows & columns (1)

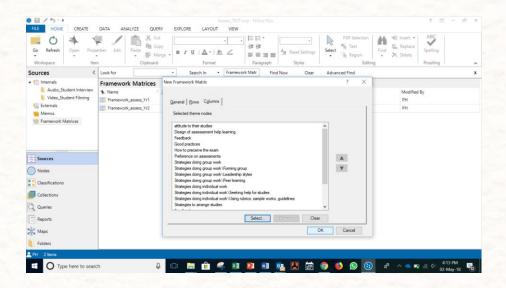
https://www.youtube.com/watch?v=uat8Pe5kGMI

[57min >]

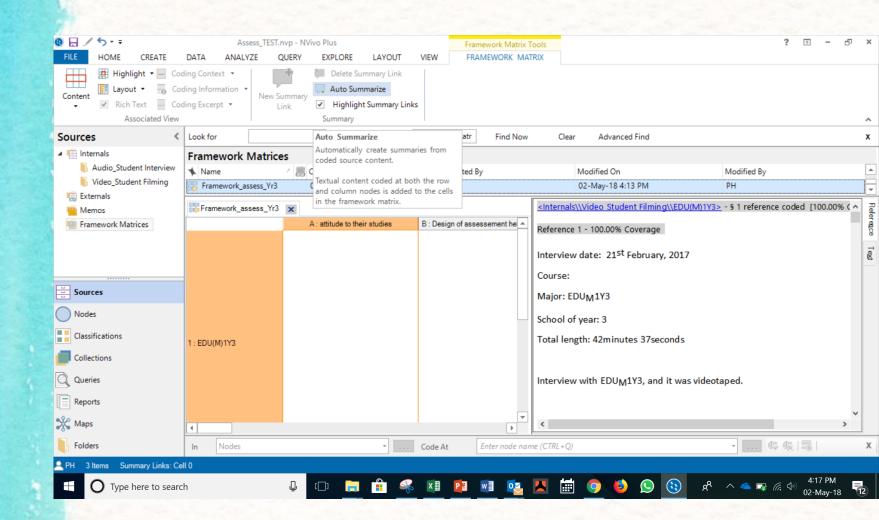


Framework from source: name, select rows & columns (2)

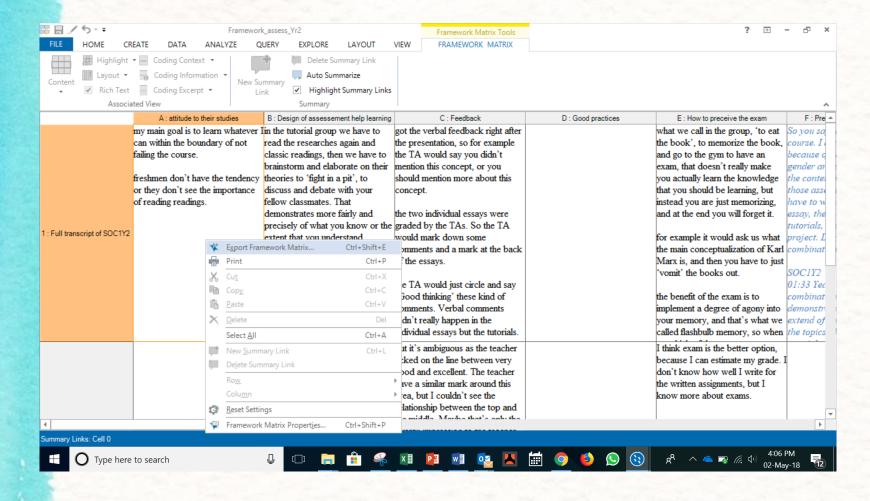


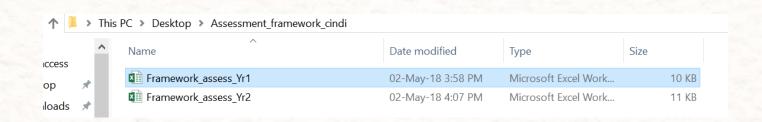


Framework from source:
Framework matrices > Auto
Summarize (3)



Framework from source: Auto Summarize to exporting to Excel (4)





Query wizard: cross tabulation

- Autocoding: Sentiment
- Keyword search: High frequency word/terms
- Run query of the terms with sentiment 'positive', 'negative'
- Save 'Result', and explore emerging themes

MORE emerging ideas for your next publication

Coding

Making queries on coding

Themes are unifying concepts or statements

- Identify and characterize:
 - Patterns of behaviors
 - Group interactions
 - Individual perceptions
- Help to develop testable hypotheses by:
 - Identifying salient factors
 - Informing predictions about relationships

Making query: Know to unknown

- Making query in data allows researchers not just finding evidence to support research questions, but identifying gaps between sets (differences and commonality between stakeholders/age/organizations)
- Enabling more research questions to be asked

NEW web references

Mixed Methods Analysis with NVivo 11 for Windows

https://www.youtube.com/watch?v=I9 YIHXrh88&t=274s

Learning how to explore and visualize your data with NVivo | NVivo Brown Bag Webinar

- https://www.youtube.com/watch?v=Ez7PB6ZIA5I
- Explore and Visualize Your Data Using NVivo 11 for Windows to Tell the Story the Story
- https://www.youtube.com/watch?v=2wjMp-L-JDk

Q&A



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THANK YOU