











ISCONTOUR Conference 2016

Qualitative Research and Analysis Methods

myHub More + Q

Search our site

Home Study + Research Discover Collaborate About

Faculties Open days Accommodation Student life and support Library Facilities Local area Global Clubs and societies SportBU BU Events Alumni Belong+ AFC Bournemouth



Search our courses

(

Home / Discover / Faculties / Faculty of Management / Our departments / Department of Tourism & Hospitality

Department of Tourism & Hospitality

Contact us





Introducing...

- Dr. Barbara Neuhofer
- Lecturer in Tourism and Hospitality Management
- MSc Hospitality Programme Leader Bournemouth University
- BU eTourismLab
- PhD Thesis: Technology Enhanced Tourist Experiences, Bournemouth University, UK (Prof Buhalis, Prof Ladkin)





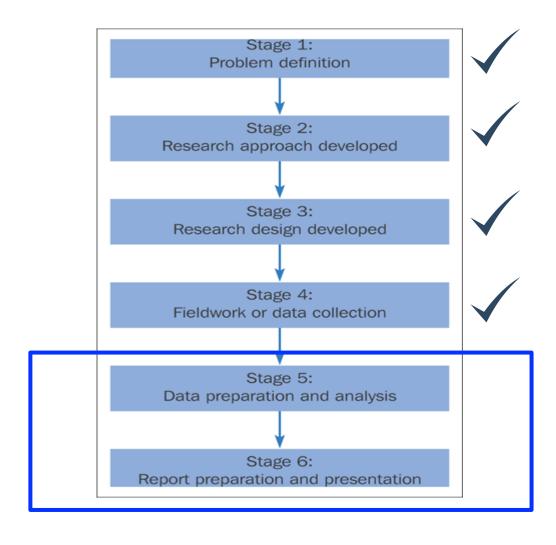


Learning Outcomes

- To understand types of qualitative data
- To overview stages of analysis
- To learn how to code and interpret data
- To explore manual vs computer-assisted software coding
- To learn how to use NVivo for qualitative analysis



Research Process





Analysis & Interpretation

Data analysis

An attempt by the researcher to summarize collected data.

Data Interpretation

Attempt to find meaning

Data reporting

Attempt to present the analysed results and findings



Types of data

How can we collect qualitative data?
What types of data exist?



What types of qualitative data?

- Written field notes (observation)
- Audio recordings of conversations (interviews)
- Audio recordings of focus group conversations (interviews)
- Video recordings of activities (observation)
- Diary recordings of activities / thoughts (observation / case studies, written/audio-recorded)



Qualitative Data

- thoughts, views, interpretations
- priorities, importance, motivations
- processes, social practices
- intended effects of actions
- feelings and experiences



Analysis Process

Qualitative data analysis does not start once data is collected!

The preliminary analysis process starts already during data collection



Data Analysis **During** Collection

- Analysis not left until the end
- Iterative data collection (and analysis), incorporate insights from one interview/observation in the next
- To avoid collecting data that are not important the researcher must ask:
 - How am I going to make sense of this data?
- As they collect data the researcher must ask
 - Why do the participants act as they do?
 - What does this focus mean?
 - What else do I want to know?
 - What new ideas have emerged?
 - Are there emerged insights that require focus?
 - Is this new information?



Data Analysis After Collection

- One way is to follow three iterative steps
 - Become familiar with the data through
 - Reading
 - Creating notes / memos
 - Exam the data in depth to provide detailed descriptions of the setting, participants, and activities.
 - Categorizing and coding pieces of data and grouping them into themes.



Qualitative Analysis

Qualitative analysis of interview data A basic step-by-step guide

© Kent Löfgren, Sweden

https://www.youtube.com/watch?
v=DRL4PF2u9XA



Content analysis refers to a general set of techniques useful for analysing and understanding collections of text.

Oxford internet institute, University of oxford



Definition

"any qualitative data reduction and sensemaking effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings"

(Patton, 2002, p.453)



Types of qualitative content analysis

Directive content analysis

 Conventional qualitative content analysis (grounded theory development

Summative content analysis



Directive content analysis

Initial coding starts with a theory, or relevant research findings.

The purpose of this approach usually is to validate or extend a conceptual framework or theory.



Conventional content analysis

Coding categories are derived directly and inductively from the <u>raw data</u>



Summative content analysis

Starts with the counting of words or manifest

content, then extends the analysis to include

latent meanings and themes.



+ Example:
Qualitative Analysis Process



Coding raw qualitative data

What is coding?

- The raw and transcribed interview documents represent "the undigested complexity of reality" (Patton, 2002, p.463)
- Extract analytical concepts, patterns and themes (Bazeley, 2007)
- Assigning names and labels to raw text for the purpose of linking data to ideas, and forming themes



Common stages of coding

- ✓ Familiarisation with the data through review, reading, listening etc.
- ✓ <u>Transcription</u> of tape recorded material (transcribe in word/Nvivo)
- ✓ <u>Organisation</u> and indexing of data for easy retrieval and identification.
- Anonymising of sensitive data
- Develop Categories and a Coding Scheme (Let yourself be guided by your research questions / template coding)
- ✓ Code All the Text by transcript, 1 by 1
- ✓ Coding (or indexing) manually for ideas, systematically with NVivo
- Assess Your Coding Consistency



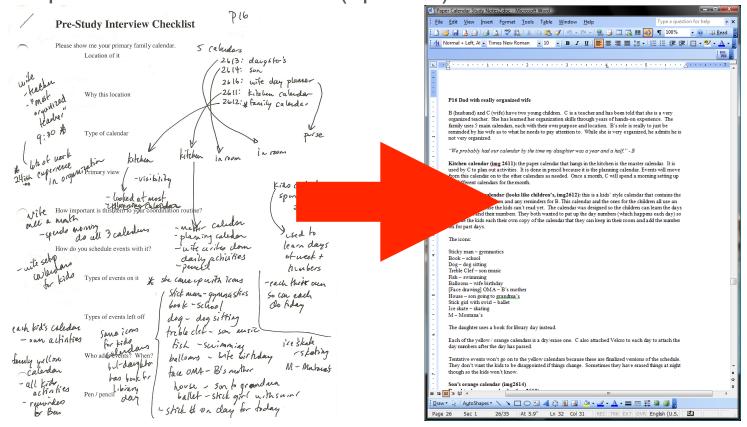
Common stages of coding (cont'd)

- Un-coding / Re-coding / Finalising
- Development of provisional categories.
- Exploration of relationships between categories
- Refinement of themes and categories.
- Development of theory and incorporation of pre-existing knowledge
- Testing of theory against the data
- Report writing, including excerpts from original data if appropriate (e.g., quotes from interviews).



Prepare data for analysis

Step 1: translate field notes (optional)



paper

digital

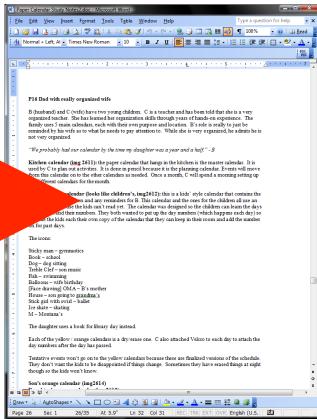


Prepare data for analysis

Step 1: transcribe audio-recordings



Audio recording



Digital transcript



Prepare data for analysis

Step 1: transcribe audio-recordings

Verbal and Non-Verbal Annotations	Transcription
Laughter and Smiling Reflecting positive experience memories	"Because it involves, it connects my fun, social game (laugh) with a reward, with an ACTUAL reward. Like a physical reward, like a tea or so, or a free coke (laugh). That is physical and that I can touch. Yeah (smile)." (Martha)
Word Emphasis Reflecting importance of specific meanings	"I feel like that it is rude as well because you are spending time on the phone and kind of not enjoying or interacting with ACTUAL people that are around you." (Rachel)
Hesitation Reflecting uncertainty	"Hmm (laugh) What I gain from it? Maybe (hesitation) recognition. Yeah. Taking nice pictures and being in a really nice place (laugh) and being admired because it's raining at home. But yeah I mean when you think about it, it is a bit stupid, isn't it?" (Jane)



Systematic Coding Process

Coding Phase	Analysis Strategy	Analysis Process
Phase 0	Transcription and Data Familiarisation	Transcribe transcripts, take notes and highlight ideas
	Import Transcripts into NVivo 10 and Development Folder System	Develop system, prepare and organise the data
Phase 1	A-Priori Conceptual Framework Coding	Examine the data Template coding based on the conceptual framework, initial hierarchy
Phase 2	Coding-on and Hierarchy Development	Detailed inductive coding and hierarchy development, Coding-on, reordering, reshuffling and hierarchies
Phase 3	Distilling, Sorting and Meta-Coding	Reduce and order codes, develop hierarchies and meta-structures for themes
Phase 4	Clustering and Development of Themes	Clustering and developing themes, exploring relationships
Phase 5	Refining and Validating Themes	Refining, double-checking and cleaning themes
Phase 6	Finalising Themes and Theory Building	Finalising categories, and building final themes for the theoretical contribution

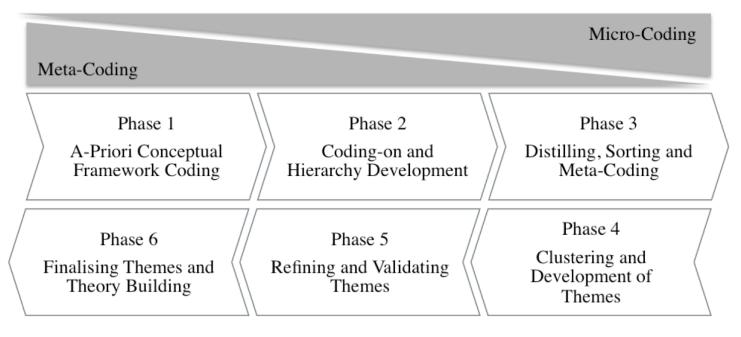
Source: Neuhofer, 2014



Systematic Coding Process

Multiple stages of coding, checking, sorting, cleaning

Figure 3-7. Meta-Micro Coding Process



Source: Neuhofer, 2014



Example: Calendar Contents

Step 1: list questions / focal points

What type of events are on the calendar?
Who are the events for?
What other markings are made on the calendar?
...

(you may end up adding to this list as you go through your data)



Example: Calendar Routines

Step 2: go through data and ask questions

B (husband) and C (wife) have two young children. C is a teacher and has been told that she is a very organized teacher. She has learned her organization skills through years of hands-on experience. The family uses 5 main calendars, each with their own purpose and location. B's role is really to just be reminded by his wife as to what he needs to pay attention to. While she is very organized, he admits he is not very organized.

"We probably had our calendar by the time my daughter was a year and a half." - B

Kitchen calendar (img 2611): the paper calendar that hangs in the kitchen is the master calendar. It is used by C to plan out activities. It is done in pencil because it is the planning calendar. Events will move from this calendar on to the other calendars as needed. Once a month, C will spend a morning setting up the different calendars for the month.

Orange family calendar (looks like children's, img2612): this is a kids' style calendar that contains the activities for the children and any reminders for B. This calendar and the ones for the children all use an icon system because the kids can't read yet. The calendar was designed so the children can learn the days of the week and their numbers. They both wanted to put up the day numbers (which happens each day) so C made the kids each their own copy of the calendar that they can keep in their room and add the number on for past days.

Where do families keep their calendars?



Example: Calendar Routines

Step 3: go through data and ask questions

B (husband) and C (wife) have two young children. C is a teacher and has been told that she is a very organized teacher. She has learned her organization skills through years of hands-on experience. The family uses 5 main calendars, each with their own purpose and location. B's role is really to just be reminded by his wife as to what he needs to pay attention to. While she is very organized, he admits he is not very organized.

"We probably had our calendar by the time my daughter was a year and a half." - B



Kitchen calendar (img 2611): the paper calendar that hangs in the kitchen is the master calendar. It is used by C to plan out activities. It is done in pencil because it is the planning calendar. Events will move from this calendar on to the other calendars as needed. Once a month, C will spend a morning setting up the different calendars for the month.

Orange family calendar (looks like children's, img2612): this is a kids' style calendar that contains the activities for the children and any reminders for B. This calendar and the ones for the children all use an icon system because the kids can't read yet. The calendar was designed so the children can learn the days of the week and their numbers. They both wanted to put up the day numbers (which happens each day) so C made the kids each their own copy of the calendar that they can keep in their room and add the number on for past days.

Where do families keep their calendars?

Calendar Locations:

[KI] – the kitchen [CR] - child's room



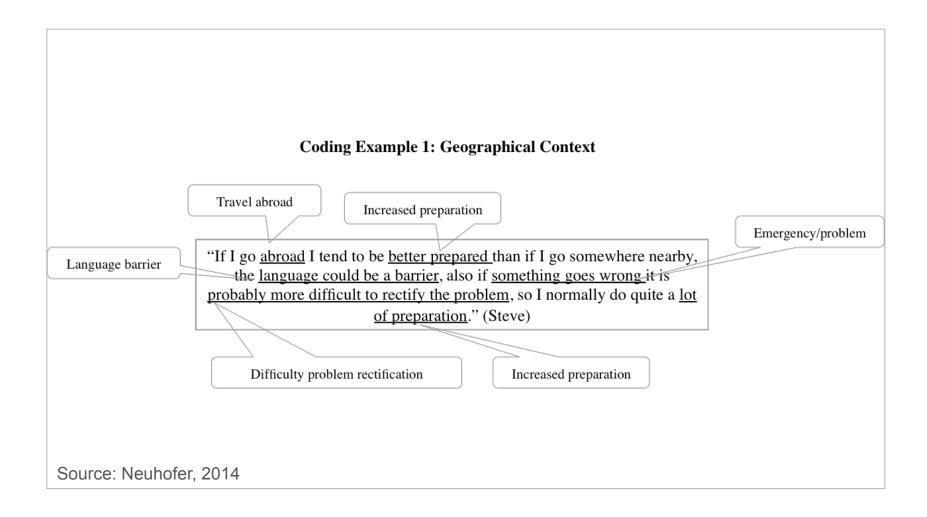
Example: Calendar Routines

The result:

- list of codes
- frequency of each code (do a word frequency search! - NVivo)
- a sense of the importance of each code
- Frequency could be indicator of importance

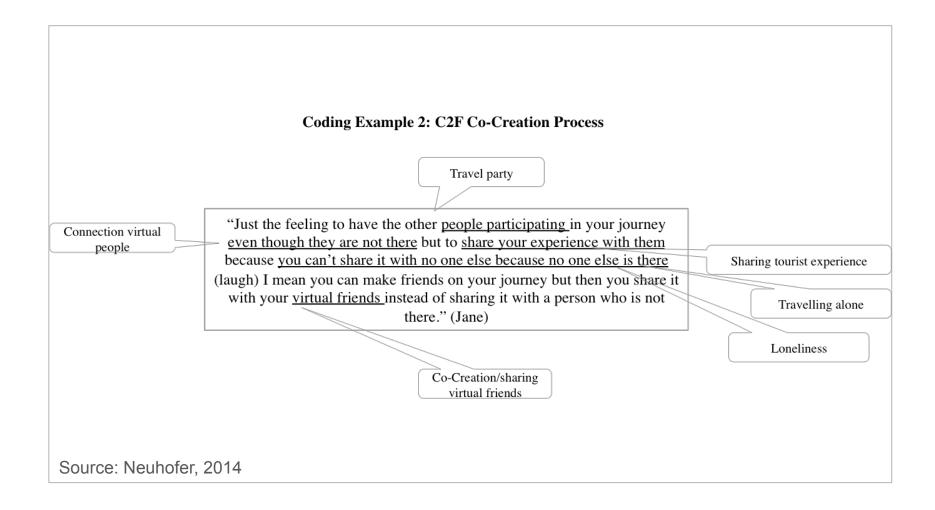


Coding Example: Tourist Experience



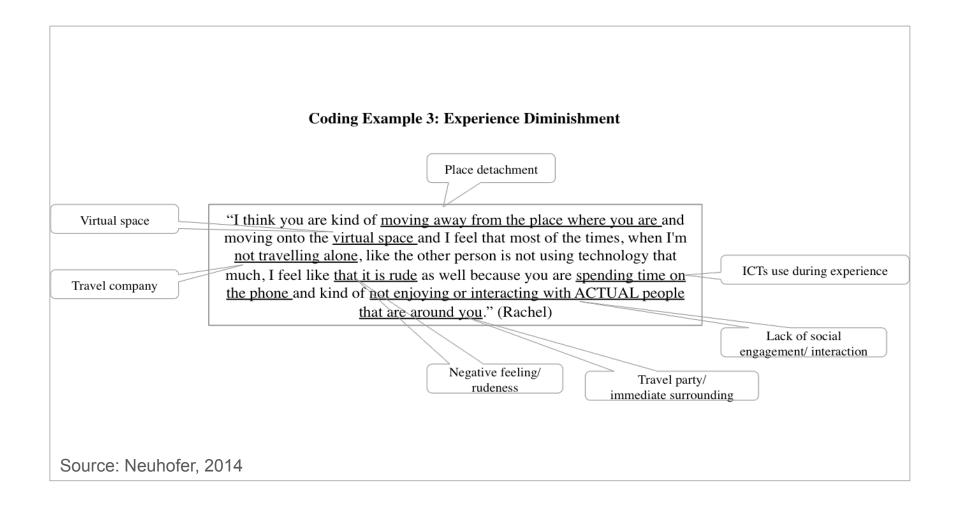


Coding Example: Tourist Experience





Coding Example: Tourist Experience





Coding Activity

Neuhofer, B., 2014. An exploration of the technology enhanced tourist experience.



Qualitative template analsysis

A-priori Themes	A-priori Codes		
Tourist Experience	Tourist Experience		
	2. Granular Elements		
2. Empires Co Continu	3. Connection		
	4. C2C Co-Creation		
2. Experience Co-Creation	5. B2C Co-Creation		
	6. C2L Co-Creation		
	7. Technology Use		
	8. Technology Need		
	9. Technology Benefits (Experience Enablers)		
3. ICTs	10. Technology Type		
	11. Technology Role		
	12. Technological Requirements/Barriers		
	13. Source/Material		
	14. Pre-Stage		
4 Troyal Stage	15. Transit-Stage		
4. Travel Stage	16. During-Stage		
	17. Post-Stage		
	18. Information		
	19. Inspiration		
	20. Planning		
	21. Decision-Making		
5. Tourist Activity	22. Review Active/Passive		
	23. Location		
	24. Navigation		
	25. Transportation		
	26. Sharing		
6. Technology Enhanced Tourist	27. Technology Enhanced Tourist Experience Factors		
6. Technology Enhanced Tourist Experience	28. Tech Experience Enhancement		
•	29. Tech Experience Diminishment		
7. Additional	30. Undefined		



Transcripts Verbatim Quotes	1 A-Priori	2 Coding-On	3/4 Meta-Coding	5/6 Themes
"If I'm feeling very satisfied with a café and the manager or the waitress asked me to put a good review on it, on TripAdvisor ok, I would put the review." (Teresa)	Experience Co-Creation	Value: Satisfaction Review Positive Review	Co-Creation Process Co-Creation Value	C2B Co- Creation
"I think it is the MOMENT, when you find something that intrigues you. And it probably intrigues your friends, if you have something nice and a nice meal or you are in a nice place, I think that it becomes automatic to me to share it, ok." (Sandra)	Experience Co-Creation	Co-Creation: Experience sharing friends	Co-Creation Process	C2F Co- Creation
"If I go abroad I tend to be better prepared than if I go somewhere nearby, the language could be a barrier, also if something goes wrong it is probably more difficult to rectify the problem, so I normally do quite a lot of preparation." (Steve)	Technology Use	Distance Language Barrier Planning and preparation	Geographical Context	Contextual and Situational Factors
"Of course the phone is very quick and convenient but the book is sometimes like if they also spend time to adjust it so in some case I cannot find the solution on the phone so I would come back to the book, yeah, you know what I mean." (Hanna)	Tech Experience Enhancement	ICTs Benefits Speed Efficiency Traditional Sources	Enhancement Intensity	Supplementary Technology Enhanced Tourist Experience
"I think I value most these unexpected opportunities and to be connected at all the time and everywhere, that is what I value most." (Martha)	Technology Enhanced Tourist Experience Factors	ICTs Value Unexpected Opportunities Connection	Serendipity & Unexpectedness & Discovery	Technology Enhanced Tourist Experience Factors



Qualitative template analsysis

■ Number of codes after 1st round of template coding

Meta-T	Themes	Sub-Codes	Nr Source	Nr References
1.	Experience Co-Creation	4	15	21
2.	Context	5	15	144
3.	Need	3	12	112
4.	Travel Stages	4	15	231
5.	Technology	9	15	707
6.	Technology Enhanced Tourist Experience	16	15	913
	Enhancement Process			
7.	Technology Enhanced Tourist Experience	4	15	404
	Enhanced Experience			
8.	Additional	2	13	34



Coding-on

Coding-on, multiple level coding to extract meaning in data

Meta-Themes 1	Code Level 2	Code Level 3	Code Level 4	Code Level 5
Technology	Source			
	Technology	Technological Issues		
	Characteristics	(Experience Barriers)		
	Technology	Technological Wishes		
	Use			
	Technology	Future Opportunities		Technology (general,
	Issues			website)
		Technology Benefits	Effect	Software
		(Experience	Effect	(applications, social
		Enablers)		media)
			Cause	Hardware (all-in-one,
				mobile device)
				Functionalities
				(push information,
				recognition, ease,
				pattern)



More than finding themes...

"Too often, qualitative researchers rely on the presentation of key themes <u>supported by quotes</u> from participants' text as the primary form of analysis and reporting on their data.

I argue that qualitative data require and support much deeper analysis. Strategies that might assist researchers to enrich their analysis of qualitative data include improving interpretation and naming and renaming of categories; using divergent views and negative cases to challenge generalisations; returning to substantive theoretical or methodological literature; creating displays using matrices, graphs, flowcharts and models; and using writing itself to prompt deeper thinking."

Dr. Pat Bazeley, Malaysian Journal of Qualitative Research, 2009

+ Computer-assisted
Qualitative Analysis

Why use computer-assisted analysis?

 Computer-assisted tools has become increasingly embraced as a common practice to manage and analyse extensive data (Seale, 2000; Bazeley, 2007).

- manage large numbers of interview transcripts, notes and protocols
- avoid data overload
- NOT like SPSS to perform analysis
- BUT basic tool to mechanise tasks of ordering, archiving and administrating data, rather than analysing it



Why use computer-assisted analysis?

- Does not alter analysis process.
- Usually not a shortcut or timesaver.
- Programs fit different data & needs.
- Simply a tool to organise data, maintain overview, avoid getting lost in data (e.g. compared to paper/colour approach)
- Main purpose:
 - Organising
 - Managing
 - Coding
- Key advantage: Systematic processing of data
- Transparency, rigour, minimising coding subjectivity in qualitative research process



QSR NVivo

- Developed by Lyn and Tom Richards in Australia.
- Started as NUD.IST in 1980s. Now NVivo v. 10.



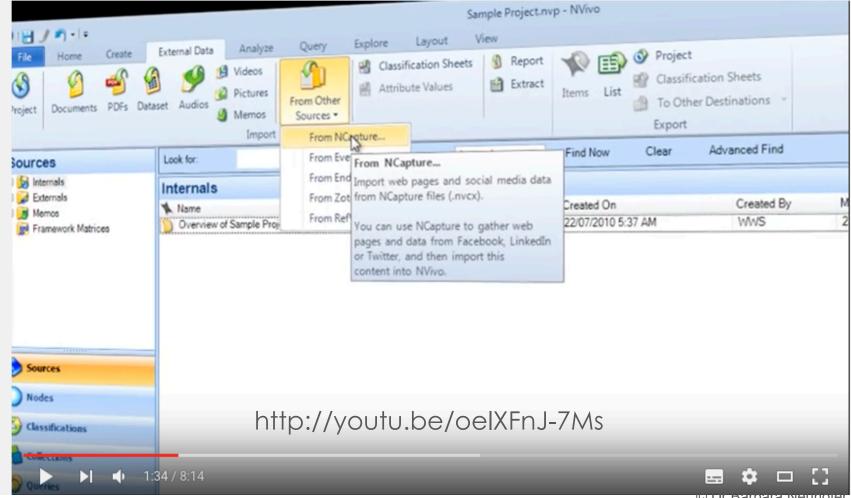


Q

NVivo

You Tube AT

Suchen



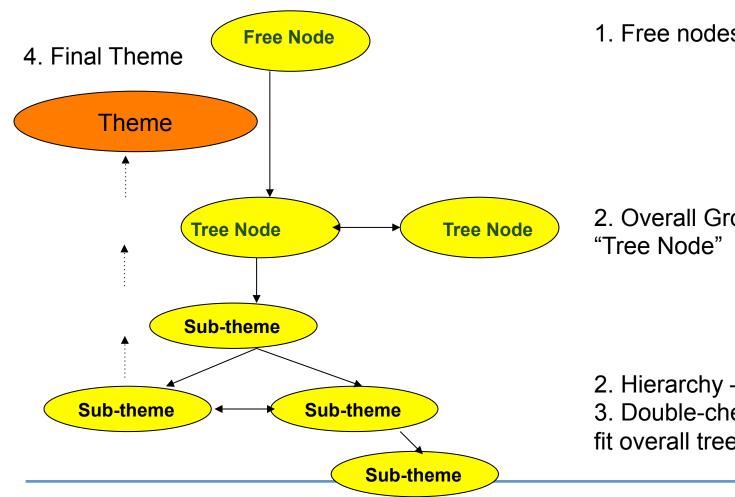


NVivo Coding Process

- Phase 1: Generating Free Nodes Broad Participant Driven Stand Alone Category
 - 1 transcript after another: 1 by 1 code everything
- Phase 2: Grouping and Hierarchy
- Phase 3: Double-checking nodes fit overall category
- Phase 4: Moving, cleaning, deleting, expanding
- Phase 4: Finalising overall "Themes", Interpretation and Outcome Statements



NVivo Coding Process



1. Free nodes

2. Overall Group/Category

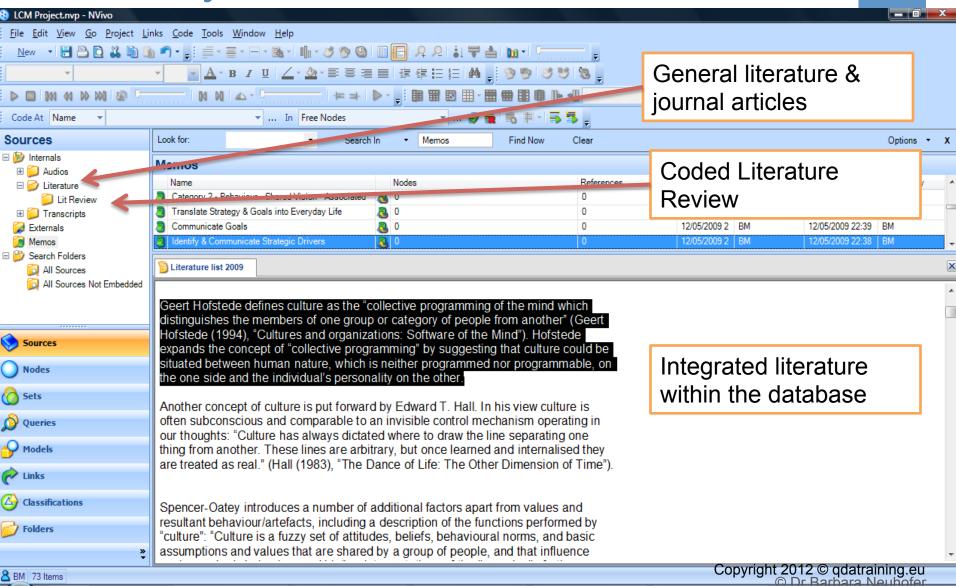
- 2. Hierarchy Sub-themes
- 3. Double-check if sub-themes fit overall tree-node

EN 🗸 🚫 🧞 🗭 💟 Μ 🌁 🖼 🕩 09:38



Primary data and the literature

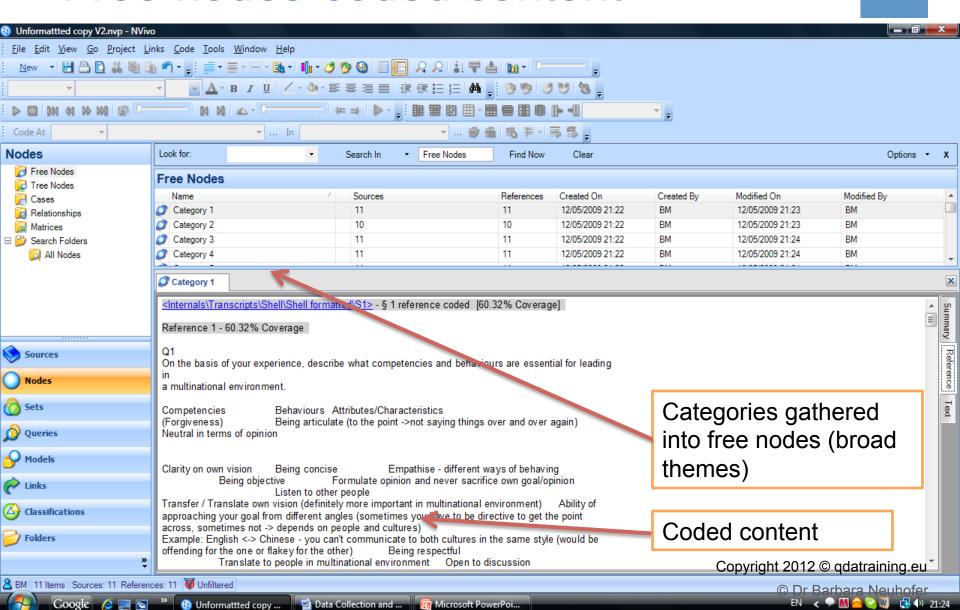
🌈 🌅 🕙 🤲 Inbox - IncrediMail ... 🕟 Calendar - Microsof... 🧗 C:\Users\Ben Meeh... 👩 Microsoft PowerPoi...



🚯 LCM Project.nvp - ...

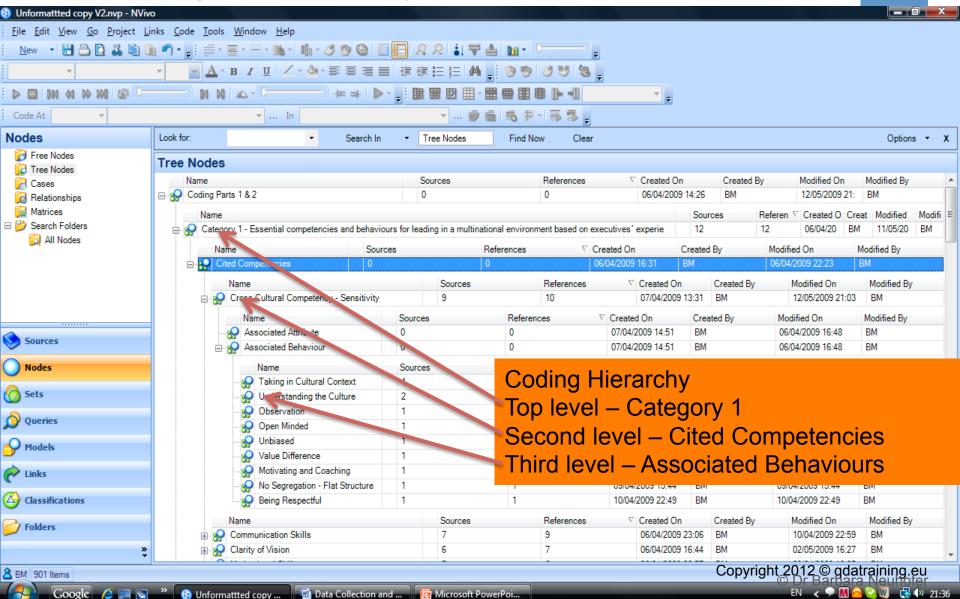


Free nodes-coded content



+

Coding hierarchy



Where is this paragraph coded?Coding Stripes

as e late 90's this area has really experienced a boom. It's a changing area. There's a lot of loving to the area. There are a lot of military people, is a part of it. But this area has been tere is no question about it. Especially growth on the mainland in the 1990s, we had 5 icanes in six years. People started getting tired of getting beat-up on the beach. This was is area, the true Down East area, started getting pressured as far as development. as e late 90's this area has really experienced a boom. It's a changing area. There's a lot of ommunity change (EDR noving to the area. There are a lot of military people, is a part of it. But this area has been here is no question about it. Especially growth on the mainland—in the 1990s, we had 5 ricanes in six years. People started getting tired of getting beat-up on the beach. This was is area, the true Down East area, started getting pressured as far as development.



Live-demonstration of NVivo

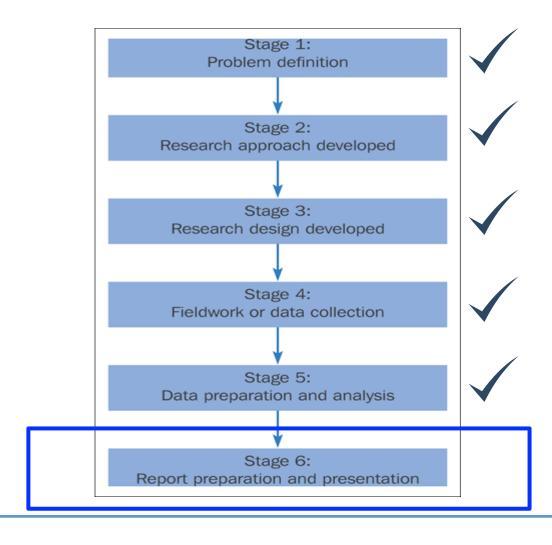
(if programme is installed)



Reporting Qualitative Analysis



Research Process





Report – What to include

- Theme 1
- Analysis text
- Direct participant quotes
- Analysis text
- Theme 2
-

1) Social Connectedness vs. Social Disconnectedness

Participants of the study report connectedness as a crucial part of their travel experiences when being physically distant from home. Being connected through a variety of mobile devices, such as smartphones and tablets, allows tourists to maintain a continuous link to their everyday life and mundane routines. While tourists seek to fully immerse and experience the tourism destination, social connectedness with the home environment permits the tourist to remain in contact with their social network not only for being updated, but also to avoid feeling spatially and temporarily isolated from their everyday lives. Many participants report the importance of being able to stay in touch with family and friends, and also work. One participant explains the value of social connectedness:

"While travelling, call back the family and I also still use it as normal, like answer the email and update the work. Because in the past if you don't have the smart phone, you are stack when you were travelling [...] So like this, when I ravel in another country. I work and update like normal, and people don't feel like 'oh she is on holiday or she is on leave I have to vasit another week to get the answer." (Hamna)

The social connectedness provides a sense of attachment to home. Participants state that while they are physically away, mentally they have the feeling that they are still present there. Social connectedness demonstrates to be crucial for tourists, not only for being connected but also to maintain and their social relationships and co-create their experiences. It seems to provide a sense of security and comfort, especially when social relations on-site are scarce. The connection thereby seems to frequently replace the need for physical encounters and shift interactions to the online social space.

"If you don't and can't interact with the people around you, because you might not know them, then it is nice to have a conversation or have this kind of sense that other people are still around you, even though it is kind of virtual, it gives you kind of a security, and then you are more willing to share the experience." (Rachel)

In contrast to the desire for consistent social connectedness and blurring of everyday itie and the travel experience through ICTs, the findings also indicate a polar view, suggesting that an equal need for tourists' disconnectedness. In this vein, participants emphasise that the state of being connected to and co-creating with the social network is an inhibitor of switching off, preventing escapism and enjoying the 'real experience'. Due to the convergence of everyday life with travel, participants report an interference with their travel experience. Two participants underline:

"Because if I connect so much it is not kind of travelling anymore, you are, I don't know, I just really like I want to get off the daily life, so I seek the reality, because if you stick so much with technology you don't really enjoy the place you live." (Hanna) "I think that somebody who uses technology that much to that extent, cannot actually enjoy that places that much, because you are so caught up in sharing it with other people rather than enjoying it yourself that much." (Rache than enjoying it yourself that which." (Rache)

The findings support ICTs as key instruments enabling tourists to establish social connections and allowing for co-creation processes to occur. The notion of being



Reporting Results

- Find the main themes
- Use quotes / scenarios to represent them
- Include counts for codes (optional)
- Provide nodes map
- Provide conceptual model

can decide to spontaneously meet in turn. The following narrative by Martha explains how ICTs could have facilitated such an unexpected encounter:

"I think I value most these unexpected opportunities and to be connected at all the time and everywhere, that is what I value most...It would have been something unexpected because when I went to the restaurant I went with my partner and I'm gonna sit with him and I talk about our topics, but if she came in and has a chat with us for a while, maybe she would have said something funny or so, so I think the whole experience would be, also more social, because you would get in contact with a new person that you didn't expect before." (Martha)

Surprises and Rewards

The final feature of serendipity regards surprises and rewards tourists can gather in their experiences. Participants exemplified the situation of online check-ins into physical places, which triggered surprises and rewards from the company in turn. Several individuals emphasised that, while they do not expect such gifts, surprises have become a possible key benefit of a technology enhanced experience. This is because online and virtual activities (e.g. check-ins) are translated into the physical world, in which tangible rewards enhance the 'real experience'. Participants highlighted the following:

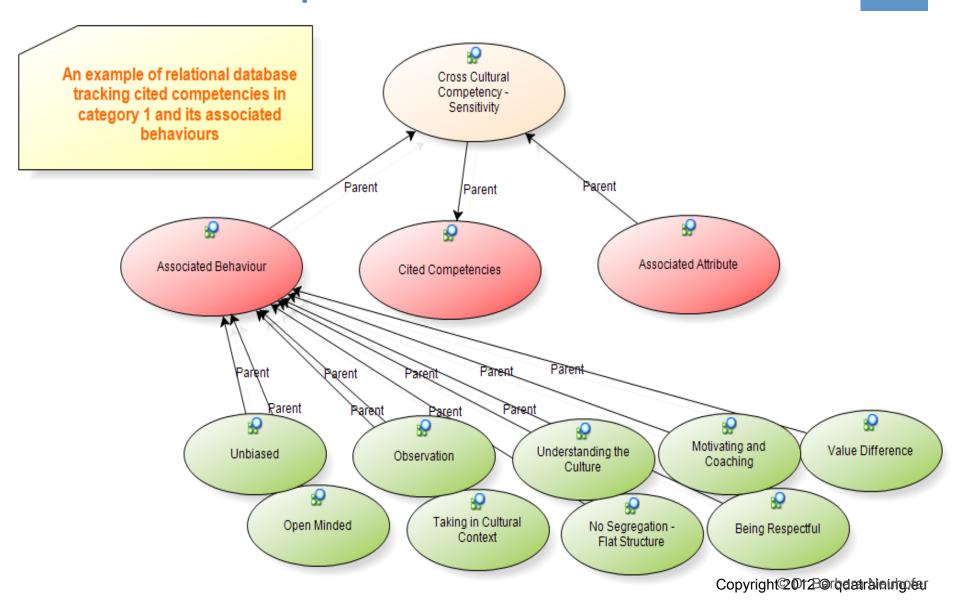
"Review the company, maybe get a reward from it." (Martha)

"I go to a restaurant and the menu has a QR code with an offer and they say 'if you scan the QR code you get 20% off, we will give you a free starter for example', for me this is enhancing it." (Sandra)

This theme demonstrated serendipitous encounters, the element of unexpectedness and surprise as a major experience factor. It was of particular interest to understand how place discovery has changed and has become more serendipitous. Not only can tourists



Relationship Nodes Model



Word Cloud Wordle.net



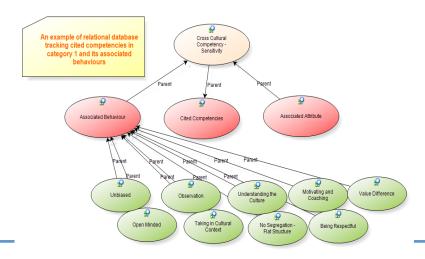
http://www.infobarrel.com/media/image/54054.jpg



Report – What to include

Graphics:

- Themes
- Mindmaps
- Word frequency, word cloud
- Model with all main themes at the end?!







Key References

- Qualitative NVivo Analysis
 - Bazeley, P., 2007. Qualitative data analysis with NVivo. London: SAGE Publications.
- How to do identify themes:
 - Ryan and Bernard: Techniques to Identify Themes
- Example Article:
 - Altinay, Sigala, Waligo 2016
 - Social value creation through tourism enterprise

Recent Publications

- Neuhofer, B. (2016) Innovation through co-creation: Towards an understanding of technology-facilitated co-creation processes in tourism. In:
 Egger, R., Gula, I., Walch, D. (eds.)
 Open Tourism: Open Innovation, Crowdsourcing and Collaborative Consumption challenging the tourism industry. Vienna, Springer, pp.17-33.
- Neuhofer, B. (2016) Value Co-Creation and Co-Destruction in Connected Tourist Experiences. In Inversini, A. and Schegg, R. (Eds.),
 Information and Communication Technologies in Tourism 2016, Bilbao, Spain: Springer Verlag, pp. 779-792.
- Neuhofer, B., Buhalis, D. and Ladkin, A. (2015) <u>Smart technologies for personalized experiences: a case study in the hospitality domain.</u> Electronic Markets – The International Journal of Networked Business, pp.1-12.
- Neuhofer, B., Buhalis, D. and Ladkin, A. (2015) Technology as a Catalyst of Change: Enablers and Barriers of the Tourist Experience and Their Consequences. In Tussyadiah, I and Inversini, A. (Eds.), Information and Communication Technologies in Tourism 2015, Lugano, Switzerland: Springer Verlag, pp. 789-802.
- Neuhofer, B. and Buhalis, D. (2014) Experience, Co-Creation and Technology: Issues, Challenges and Trends for Technology Enhanced Tourism Experiences. In: McCabe, S. (ed.) <u>Handbook of Tourism Marketing</u>. London, Routledge.
- Neuhofer, B., Buhalis, D., Ladkin, A. (2013) <u>A Typology of Technology-Enhanced Tourism Experiences</u>. *International Journal of Tourism Research*. DOI: 10.1002/jtr.1958.
- Neuhofer, B., Buhalis, D., Ladkin, A. (2012) <u>Conceptualising technology enhanced destination experiences</u>. Journal of Destination Marketing & Management, 1(1–2): 36-46.
- Neuhofer, B., Buhalis, D. and Ladkin, A. (2013) <u>Experiences, Co-creation and Technology: A conceptual approach to enhance tourism experiences</u>. *Proceedings of Cauthe 2013*, pp. 546-555.
- Neuhofer, B., Buhalis, D. and Ladkin, A. (2013) <u>High Tech for High Touch Experiences: A Case Study from the Hospitality Industry</u>. In Cantoni, L. and Xiang, Z. (Eds.), *Information and Communication Technologies in Tourism 2012*, Vienna, Austria: Springer Verlag, pp. 290-301.



Dr Barbara Neuhofer

Lecturer – Dep T&H
BU eTourism Lab
Faculty of Management
Bournemouth University, UK

bneuhofer@bournemouth.ac.uk www.barbaraneuhofer.com bournemouth.ac.uk/etourismlab Connect: Facebook I Academia I LinkedIn









THANK YOU