

## INTERPRETATION Making sense to your discoveries via qualitative data analysis

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## Face 2: Interpret

- The main objectives are to:
  - make qualitative analysis of research phase (interviews, visits)
  - make sense of thoughts using variety of tools
  - Interpret observations based on abductive reasoning





## Your POV quest





## Why qualitative analysis?

- If we assume that you collected tremendous amount of info during your discovery/research phase, then you need to tidy up!
- Analysis of qualitative data, i.e. observer impression involves data examination, interpretation via forming an impression and reporting in a structured form
- QDA methods

## – Coding

Recursive abstraction



## Coding<sup>1</sup>

- Coding: analytical process in which data is categorised to facilitate analysis
- Usually a word/short phrase
- Summative , essence-capturing, evocative attribute to a portion of language-based or visual data
- heuristic, link between data and idea
- Coding is not a precise science: it's primarily an interpretive act
- Usually, solitary act ("The lone ethnographer...")

<sup>1</sup> Saldana J. (2009). The coding manual for qualitative researchers. SAGE.



## Coding types

- Open coding: label words/phrases in transcript
- Axial coding: regroup similar labels into categories (large data set / numerous coding)
- How to code: manually / CAQDAS
- What to code:
  - emotional aspects (feelings)
  - cognitive aspects (meanings, perception, intuition)
  - factual aspects (facts)
  - personal aspects (experience, beliefs)
  - attitude
- Use Empathy and affinity maps!



## Open coding example<sup>1</sup>

<sup>1</sup> My son, Barry, went through a really tough time about, probably started the end of fifth grade and went into sixth grade. <sup>2</sup> When he was growing up young in school he was a people-pleaser and his teachers loved him to death. <sup>3</sup> Two boys in particular that he chose to try to emulate, wouldn't, were not very good for him. <sup>4</sup> They were very critical of him, they put him down all the time, and he kind of just took that and really kind of internalized it, I think, for a long time. <sup>5</sup> In that time period, in the fifth grade, early sixth grade, they really just kind of shunned him all together, and so his network as he knew it was gone.

<sup>1</sup> MIDDLE-SCHOOL HELL

<sup>2</sup> TEACHER'S PET

<sup>3</sup> BAD INFLUENCES

<sup>4</sup> TEEN ANGST

5 THE LOST BOY

<sup>1</sup> Saldana J. (2009). The coding manual for qualitative researchers. SAGE.



## Axial coding example

#### **CODES / LABELS**

- take a holiday,
- go out for a walk,
- read a book,
- watch TV,
- take a nap,
- wander round the garden,
- work out at the gym,
- go for a drink with friends,
- go for a drive,
- play a computer game,
- follow a hobby,
- do voluntary work

### Adults taking a break from work

THEME / CATEGORY



## The challenge of coding

- Not easy since needs:
  - organization
  - perseverance
  - deal with ambiguity
  - creativity
  - extensive vocabulary



## Practice coding

- Look at all your interviews and peak the one you believe is the most relevant
- Each team member analyzes the same document alone!
- 15 minutes to do coding
- The coding will then serve to generate
  - Empathy map and affinity map
  - relationship matrix and concept map



## Empathy map

- Focus on 1 persona per empathy map
- Use different post-its colors for different quadrants
- Go through your QA of interviews, audios and videos (previous task) and fill the map with notes about the 4 traits
- Feeling/thinking traits should be **inferred** from observations (e.g. voice tone, body language...)
- May be, from this mapping, you will sart feeling user's need



## Recycling issues - businessman



# R.

#### 1. Analyze interviews and visits

After an interview or a visit has been realized, analyze the main message that has been delivered using coding and categorization. Interview transcripts, field notes and observations provide a descriptive record of the study, but they do not provide explanations. It is you who have to make sense of the data that have been collected by exploring and interpreting it. Empathy and Affinity maps will Help in that matter.

Team activity / Practiced during DT course - repeated during meeting with mentor / use Post-its





## Affinity map

- Remove notes from empathy map and think how to regroup them in different categories (e.g. on whiteboard)
- Name categories
- Brainstorm each note to see if it shouldn't be moved to another category
- Think of the category that need to be focused on

# Ref.

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Team activity / Practiced during DT course - repeated during meeting with mentor / use Post-its





#### 2. Make sense using relationship matrix...

Find relationships between keywords from empathy/affinity maps to give more sense to your findings.

Team activity / Practiced during DT course – team on its own (but checked by mentor)

List your keywords both along row and column headers. For each keyword in row, think in team if it is connected with other keywords listed in column header (if yes, put a X in the row/column intersection). Duplicate connection and sum rows for frequency ranking.

¥eywords	Laziness	Kid example	Climate change	Rcycling need	Repulsion	Recycling complexity	A drop in the ocean	Bad habits	Hygiene	Packaging issue	Not ashamed	Personal impact	Conformity	Doubts	Unpleasant			SUM
Laziness				×	×	×	×	×		×		×		×	×			9
Kid example			×									×						2
Climate change		Х		×		×		×			×			Х				6
Rcycling need	Х		Х			×				×		×		Х				6
Repulsion	Х							$\times$	×						$\times$			4
Recycling complexity	Х		Х	Х			×			×		×	×	×				8
A drop in the ocean	Х					Х		Х			×	×	×	×				7
Bad habits	Х		Х		Х		Х		×				×	Х	×			8
Hygiene					Х			Х							×			3
Packaging issue	Х			Х		Х								×				4
Not ashamed			Х				Х					×	×	Х				5
Personal impact	Х	Х		Х		Х	Х				Х		×	×				8
Conformity						Х	Х	Х			Х	Х		×				6
Doubts	Х		Х	Х		Х	Х	Х		Х	Х	Х	Х					10
Unpleasant	Х				Х			Х	Х									4



#### 2. ...and concept mapping

20-30 min

The concept map is used to build a visual structure of your problem domain and extract the "backbone' of your understanding. This will also help you to define your main insight in the next step, which is essential to find your POV or HMW.

Label each ellipse node using the most common terms from the relationships matrix (e.g. pick 4-5 words. write the most frequent one in the existing ellipse). Connect the ellipse nodes using lines. Think of the nodes as nouns and connections as verbs, adverbs or prepositions, so as to create a cohesive and coherent sentence (the backbone of the map). Repeat with other sets of less frequent words to create new ramifications in the map.





## **POV** quest



#### Sherlock, the Abductive Reasoning Master!



• LOGIC REASONING METHOD

ABDUCTION ≠ INDUCTION ≠ DEDUCTION

• PATTERN: PREMISE+RULE+CONCLUSION



- DEDUCTION
  - means determining the *conclusion*.
  - When it rains, the grass gets wet. It rains. Thus, the grass is wet.

 NEVER USE THIS REASONING FOR FINDING POV!



- INDUCTION
  - means defining the rule (after many tries)
  - Example: The grass has been wet every time it has rained. Thus, when it rains, the grass gets wet.
- NEVER USE THIS REASONING FOR FINDING POV!



- ABDUCTION
  - means determining the **best** precondition. It is using the conclusion and the rule to assume that the precondition could explain the conclusion.
  - Example: When it rains, the grass gets wet. The grass is wet, it must have rained.
- USE THIS REASONING TO BUILD YOUR POV



HOW APPLYING ABDUCTIVE REASONING

# SIMPLY ASK « WHY » QUESTION! OR « 5 WHYS »



## **POV** formulation

- Reframing of a design challenge into an actionable <u>problem statement</u> that will launch you into generative ideation
- 3 components
  - specific user
  - users' need
  - insight
- Defining Insight
  - hardest part of POV, because ...
  - ... An insight is a provocative statement of truth, that reflects a clear, meaningful perception into human behavior in a particular context



## GOOD/BAD POV examples

	BAD POV	GOOD POV
NUTRITION*	A teenage girl needs more nutritious food, because vitamins are vital to good health.	A teenage girl with a bleak outlook needs to feel more socially accepted when eating healthy food, because in her hood a social risk is more dangerous than a health risk. *From d.school method card on POV
MECHANIC	A driver needs his/her car to be fixed urgently, because it is his/ her only possible transport solution to go to work.	A shy educated female driver needs to feel trust from repair shop, because good and honest diagnostic is a basic condition to keep clients' fidelity.
STRESS	A kid needs to cope with stress during exam, otherwise he/she has higher probability to fail it.	A primary school kid with stress issues needs to feel school support before exams, because reducing pressure on children shoulders is a basic rule for a more fruitful personal emancipation.







## Craft good insight

- rules
  - be authentic: it comes from your personal judgment
  - be non-obvious: or not too simplisitc, caricatural
  - **be revealing**: when reading it, things make sense
  - inform: especially give meaningfull perception of human behavior in particular context
  - inspire: since the POV is also the starting point for Ideation step, its formulation should foster creative thinking
  - be memorable: shouldn't be too long to be remembered easily



#### 3. Define your Point Of View

20-30 min

An insight is a provocative statement of truth, that reflects a clear, meaningful perception into human behavior in a particular context. The definition of an insight takes 2 inputs: observations (here we consider what you can extract from the concept map or category from affinity map) and interpretation (asking "why" question and get answer). Insights are important part of POV or baseline for HMW question.

Team activity / Practiced during DT course - repeated during meeting with mentor

 Point Of View:
 build a sentence that reflects your specific user's need based on insight.

 By doing so, you reframe your challenge into a problem statement that will serve as starting point for ideation. Specific user is more than « a man » or « a girl ». It comes with some specific characteristics intrinsically linked with the need and insight. User's need should start with a verb.

A [SPECIFIC USER]

A BUSINESS MAN WHO RARELY CHALLENGE HIMSELF NEEDS TO [USER'S NEED]

NEEDS TO FEEL THE NECESSITY TO CHANGE HIS NEGATIVE POSTURE ABOUT RECYCLING



- 4. inform
- 5. Inspire

**BECAUSE**.

6. Memorable

# "ET VOILÀ! ZUPA GOTOWA!"

Pascal Brodnicki, French-Polish cook

UPIIVIUN

Surprising insight:

GROUP CONFORMITY COUPLED WITH LOBBYING STRONGLY POLLUTES OBJECTIVE REASONING