Data Analysis in Qualitative Market Research

Burkhard Schaer, ECO ZEPT
Content

- Introduction
- The Role of Categories
- Working with Qualitative Data material
  - Transcripts
  - Content analysis
- Discussion, practical exercise
Methodological Debate of “quantitative” versus “qualitative”

Typical QUAN
- Controlled research environment
- Manipulation of variables
- A priori set of categories
- Reproducible representative
- RESULTS

Typical QUAL
- Natural environment
- No manipulation of variables
- Exploration of categories
- RESULTS

(The debate QUAL-QUAN is (almost) closed! => common Quality criteria => Mixed Methods)
Quantitative approach

Real Life

Data Collection

Analysis

Interpretation
Qualitative approach

Real Life

Data Collection

Analysis

Interpretation
4 Principles for Quality

- **Validity, credibility**
  - Confirm the reasonable likeliness, e.g. by triangulation or respondent validation

- **Reliability**
  - Keep your research clean from your “self”, e.g. by detailed documentation and external auditing

- **Generalizability**
  - Show possible transfer (limits) of your (non-representative) data, e.g. by comparisons

- **Objectivity**
  - Open-mindedness needs some discipline: do not neglect data that do “not fit”, check rival theories.
One major feature of qualitative data is that they focus on naturally occurring, natural events, so we have a strong handle on "real life".

Qualitative studies aim to describe a pattern of relationships, which can be done only with a set of analytical categories.

Starting with the categories (deductive) or getting to them (inductive) are both legitimate.

(Huberman and Miles, 1994, shortened)
Content

- Introduction
- The Role of Categories
- Working with Qualitative Data material
  - Transcripts
  - Content analysis
- Discussion, practical exercise
Material for Content Analysis

...focus groups, face to face interviews, market survey research recordings, consumer forums, disabled access audits, direct response television, infomercials, small group sessions, home buyer reports, telephone survey campaigns, advertising research findings, customer analysis sessions, risk analysis sessions, building survey reports, opinion polls, recorded telephone interviews, product research audio, advisory board meetings, competitor analysis sessions, structural reports, business meetings, conferences, condition reports, seminars, workshops, in-depth interviews, group discussions....
Material for Content Analysis

- Focus groups,
- Face to face interviews,
- In-depth interviews,
- Group discussions.....
Definition: Transcript

A transcription is the conversion of a spoken-language source into written, typewritten or printed form. Transcripts are needed to conclude e.g. an interview process; all the information collected via recordings have to be written down. This is known as a transcript.

“a transcription system should be easy to write, easy to read, easy to learn and easy to search” (Flick 2006)
Transcription Techniques

I. verbatim transcription:
- full transcript of everything that is said in the recording by using the international phonetic alphabet (difficult to read), phonetic notation (dialect) or literal interpretation (corrected grammar)

II. commented transcription:
- verbal and nonverbal communication is considered as well as characteristics within the language (e.g. breaks, accentuation) – use of special signs or comments

III. content analytical transcription:
- combination of transcription and content analytical elements
  - summing up protocol (creation of abstracts; inductive category formation)
  - selective protocol (deductive category formation)
Tips for Transcribing

• pay attention to good acoustics within the audio taped material
• take notes during the data collection
• look after compatibility within the analysing software
• write down formal details exactly (e.g. names of the interviewees, time, location)
• look after accurate separation of text passages (interviewing person / interviewee)
• use separate text documents for each interview (except: group discussions)
• use punctuation marks - helpful in generating analysing sequences
• preserve anonymity within the interviewees
• use „memos“ for ideas and hypotheses that are generated while transcribing
• transcription software: Express Scribe, F4
Quantitative versus Qualitative Content Analysis

Quantitative content analyses generate numerical values (frequencies, rankings, ratings) from the verbatim text (examples: valence analysis, frequency analysis, contingency analysis).

Disregards, for example: the context of text elements, latent meaning, distinctive cases.

Qualitative content analysis also includes communication elements that are not explicitly vocalised. The meaning of statements is identified without reducing the material to quantifiable results.
Qualitative Content Analysis

- **categories** are in the centre of analysis: the aspects of text interpretation (following the research questions) are put into categories, which were carefully founded and revised within the process of analysis (feedback loops).

- Content analyses are **not a standard instrument**, but need systematic proceeding: the material is to be analyzed step by step close to the research question, following rules of procedure, devising the material into analytical units.

“how categories are defined ... is an art. Little is written about it.“ (Krippendorff)
Procedure: Content Analysis

More or less “narrative” raw data

Processed data

Break down into component units

Set of codes

Tapes, notes

Write-ups, transcripts, (verbatim)

Reducing Complexity

Risk of Information Loss

Count / analyse evaluate
Summarising Content Analysis

- seeks to reduce the material; preserving of essential contents by producing a manageable, short text.

- inductive category formation: procedures of summarizing are used to develop the aspects of interpretation and the categories, as near as possible to the material.

- deductive category application: works with prior formulated, theoretical derived aspects of analysis, bringing them in connection with the text.
Summarising Content Analysis

Raw material (transcript, notes)

Paraphrasing

Selection, radiation (I)

Reducing, summing up

Selection, radiation (II)

Reducing, reporting
Finding Categories by Summarising

(according to the project: teacher unemployment (Mayring 1995))

<table>
<thead>
<tr>
<th>case</th>
<th>page</th>
<th>paraphrase</th>
<th>generalisation</th>
<th>reduction</th>
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<td>C1: no „shock of the practise“ because of:</td>
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Inductive Category Formation

- Issue, research question
- General definition of categories, fixing the selection criterion and level of abstraction for category formation
- Gradual category formation from the material with reference to definition and abstraction level; aggregation under old categories or formation of new ones
- Revision of categories after about 10-50% of the material processed
- Final processing of material
- Analysis, eventually quantitative analyses (e.g. frequencies)

Source: Mayring 2008
Examples

Ex 1- women and beer consumption
(combined deductive / inductive category formation)

**categories:**
derived by deductive proceeding / conform to the research model

- beer consuming situations

**sub-categories:**
derived by inductive proceeding

- consumption on parties, only in society
- consumption after sport / only in the summertime

**paraphrases:**
- "I never drink beer at home"
- "only in the evening if I go out"
- .....................
QUESTION: Your personal opinion on promotions and advertising actions of companies and brands?

DEDUCTIVE CATEGORIES (close to the objectives of the study)

- Advertisement gives true information / intrusive and conditioning
- Advertisement is an art ... / just a business to make you buy
- Acceptable level and frequency / they exaggerate
- Often interesting and original / bothering - boring
- No real impact on behaviour / efficient
Young people and food consumption:

**QUESTION**: Your personal opinion on promotions and advertising actions of companies and brands.

**ONE ANSWER**: «The promotion practices of the companies and brands prompt us to consume and have a real impact on our buyings. The part played by advertising is very important when, without clearly realizing it, we buy according to advertising we saw. We are influenced by it.»
FOCUS GROUP UPS

When I tell you « OLIVE OIL » what comes in mind ? (direct listing)

Roman empire
Sun
Summer
Mediterranean sea
Olive tree
Tomato
cooking
Italiancuisine
Basilicum
smelling
yellow
green
hotness
Health
pleasure
Greece
Andalusia
Sicily
White wine
fish
Cicada
Dry lanscape
Sea
Salade
Cooking pleasure
Summer cooking
shopping
cupboard
buyings
Market
Quality
cholestérol
pepper
Mozzarella
Bread
Flavour
Origin
Trip
Holydays
Garlic
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Pleasure
shopping
Beauty
Health benefit
Marseille soap
Rocket
Antipasti
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### Spontaneous Associations with the "Dry Fruits and Nuts" Family

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<tr>
<td>Pineapple</td>
<td>Specificity, Nice colour</td>
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<td>Peanut</td>
<td>Pass - time, Nibbling</td>
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<td>Pistachio</td>
<td>Barbecue, Travel</td>
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<td>Hazelnuts</td>
<td>Convivial, Tooth decay</td>
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<td>Evening, Friend party</td>
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<td>Walnut</td>
<td>Flavour, Exoticism</td>
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<td>Banana</td>
<td>End of gondola, Crispy</td>
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<td>Prune</td>
<td>Benenuts, Muesli</td>
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<td>Balsen, Movie</td>
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<td>Diet, Hygiene (health)</td>
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<td>Infusion, Quality</td>
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DRY FRUIT AND NUTS

- Almond
- Pistachio
- Hazelnut
- Walnut
- Cashew nut
- Pecan
- Pecan
- Pass - time
- Cake
- Muesli bars
- Muesli bars
- *
- Nibbling
- Appetiser
- Aperitif
- Hygiene
- Nutrition
- Nutritive
- Quality
- Sport
- Alcohol
- Weight
- Danger
- Friend party
- Convivial
- Movies
- TV
- Crispy
- Corn
- Christmas
- Coconut

FOOD CONSUMER SCIENCE IN THE BALKANS
(Mayring): intercoder reliability is the widely used term for the extent to which independent coders evaluate a characteristic of a message and reach the same conclusion.

(Krippendorff): content analytical performance criteria:

1. validity

- **semantic validity**: the semantics of the data language has to correspond to the source (appropriateness of the category definitions, the key examples and the rules for coders)
- **sampling validity**: usual criteria for precise sampling
- **correlation validity**: correlation with some external criterion (e.g. the results of other methods like test, experiment or observation)
- **predictive validity**: if predictions can reasonably be made from the material
Principles for Quality

II. reliability

- **stability**: (test-retest conditions; coding a set of data twice)

- **reproducibility**: the extent to which the analysis achieves the same results under different circumstances \( \Rightarrow \) see intercoder reliability (Mayring)

- **accuracy** assumes stability and reproducibility and denotes the extent to which the analysis meets a particular functional standard (achieved by e.g. clear definitions of categories)
Sources

Mayring Philipp: qualitative Inhaltsanalyse – Grundlagen und Techniken (2008)
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Kohlbacher Florian: The use of qualitative content analysis in case study research. in: forum qualitative social research (2006, vol.7/1)
Content

- Introduction
- The Role of Categories
- Working with Qualitative Data material
  - Transcripts
  - Content analysis
- Discussion, practical exercise
Instructions for Practical Exercise

1. Please arrange yourself in pairs

2. Please fill in two questionnaires/pair by doing a “dummy” interview (readable, in English please) (10 minutes)

3. The questionnaires are collected

4. Please arrange yourself in 4 groups for analysis

5. Follow the instructions for analysis (30 minutes)

6. Two groups will be picked for presentation (10 minutes)

7. General discussion/ debriefing (10 minutes)