SUNI-SEA
creating synergies

Training qualitative research methods

Introduction in qualitative research, in-depth interviews and FGDs, and analysis

Project 825026

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European Union Funding
for Research & Innovation

Learning goals

After these webinars, participants will:

- Be aware of the value of qualitative research
- Have an understanding of the characteristics of qualitative research
- Have an understanding of different methodological approaches to qualitative research
- Have an understanding of the ethical issues associated with conducting qualitative research
- Have an understanding of how to appraise the quality of qualitative research
- Understand the key issues around recruitment and sampling in qualitative research

Learning goals

After these webinars, participants will:

- Have an understanding of the main features of qualitative interviewing (including in-depth interviews and focus group discussions)
- Be familiar with the key skills of interviewing
- Have developed skills to design a topic guide for interviews and/or focus group discussions
- Have practical experience of conducting in-depth interviews and/or focus group discussions

Learning goals

After these webinars, participants will:

- Have an understanding of the principles of qualitative data analysis
- Have developed skills to analyze qualitative data using a thematic approach
- Have an understanding of the role of software in supporting qualitative data analysis
- Be able to appraise the quality of qualitative research
- Have an understanding of how to publish results of qualitative research

Introduction in qualitative research

Qualitative research

"Qualitative research is an interpretative approach to data collection and analysis that is concerned with the meanings people attach to their experiences of the social world and how people make sense of that world" (Mays and Pope, 2020)

Characteristics of qualitative research methods

- Open research questions starting with why and how.
- Understanding phenomenon rather than measuring it
  - To examine, explore, understand
  - Phenomenon: experiences, behaviour, beliefs, opinions, emotions, a process, social interactions
- From the perspective of the participant.
- Gathering in-depth information, details, nuances, context regarding research topic => value of qualitative research
- Researcher is research-tool: direct observations.
- Integration of data-collection and data-analysis.

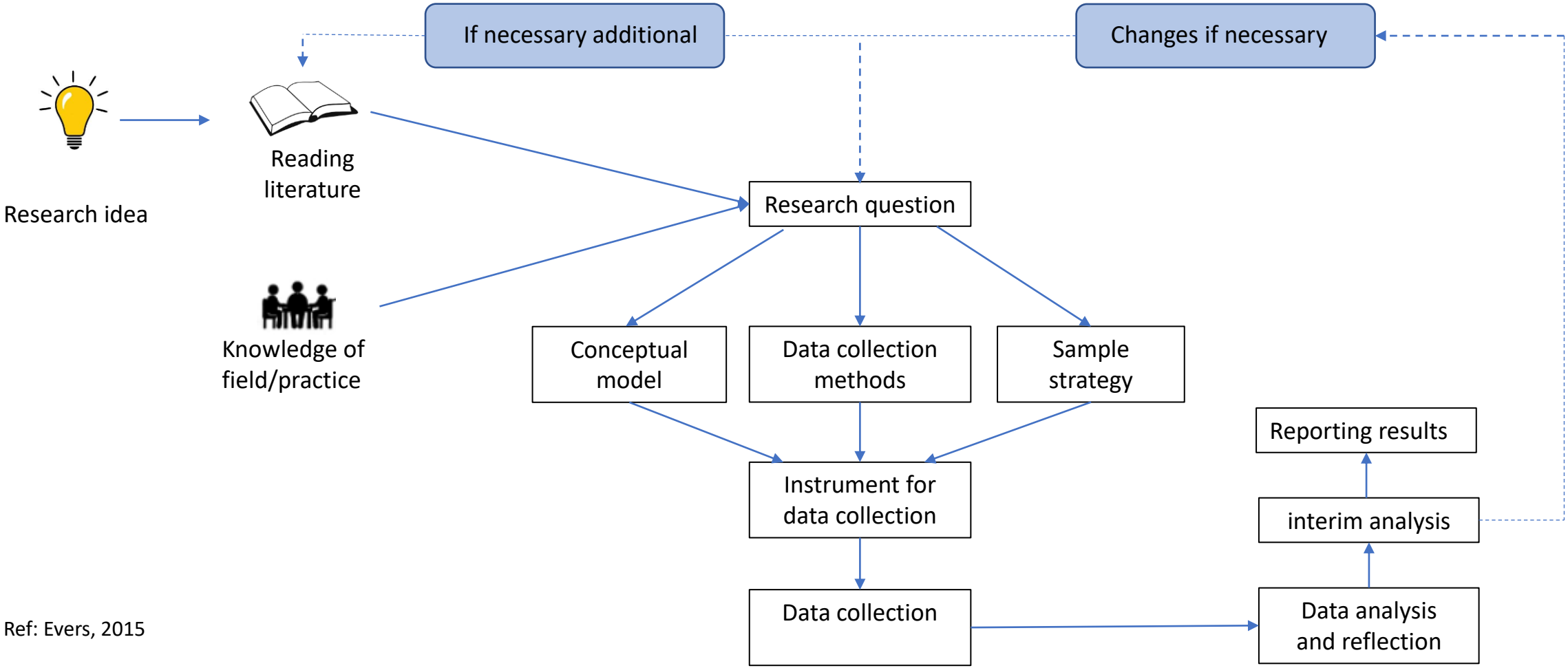
Examples of qualitative research questions

- To understand better cataract patients' willingness to pay for surgery
- To explore why cancer patients do not want to seek information about their condition other than that supplied by physicians
- To investigate how access to information and online support affects men's experiences of disease and the doctor-patient relationship
- To investigate what influences parents' decisions on whether to accept or refuse immunisation
- To understand the barriers and facilitators of NCD screening in Vietnam
- To explore the factors that influence medical student's professional behavior

Qualitative vs quantitative research

	Qualitative research	Quantitative research
Objective	To gain a detailed understanding of **underlying reasons, beliefs, motivations**	To quantify data and **extrapolate results to a broader population**
Purpose	To understand **why? How?** What is the process? What are the influences or contexts?	To measure, count, **quantify a problem**. How much? How often? What proportion? Relationships in data
Data	Data are **words** (called textual data)	Data are **numbers** or **numerical data**
Study population	**Small number of participants** or interviewees, selected purposively (non-randomly). Referred to as participants or interviewees	**Large sample size** of representative cases. Referred to as respondents or subjects
Data collection methods	In-depth interviews, observation, group discussions	Population surveys, opinion polls
Analysis	Analysis is **interpretative**	Analysis is **statistical**
Outcome	To develop an initial understanding, to identify and explain behavior, beliefs or actions	To identify prevalence, averages and patterns in data. To generalize to a broader public

Phases in qualitative research



Ref: Evers, 2015

Iterative research cycle

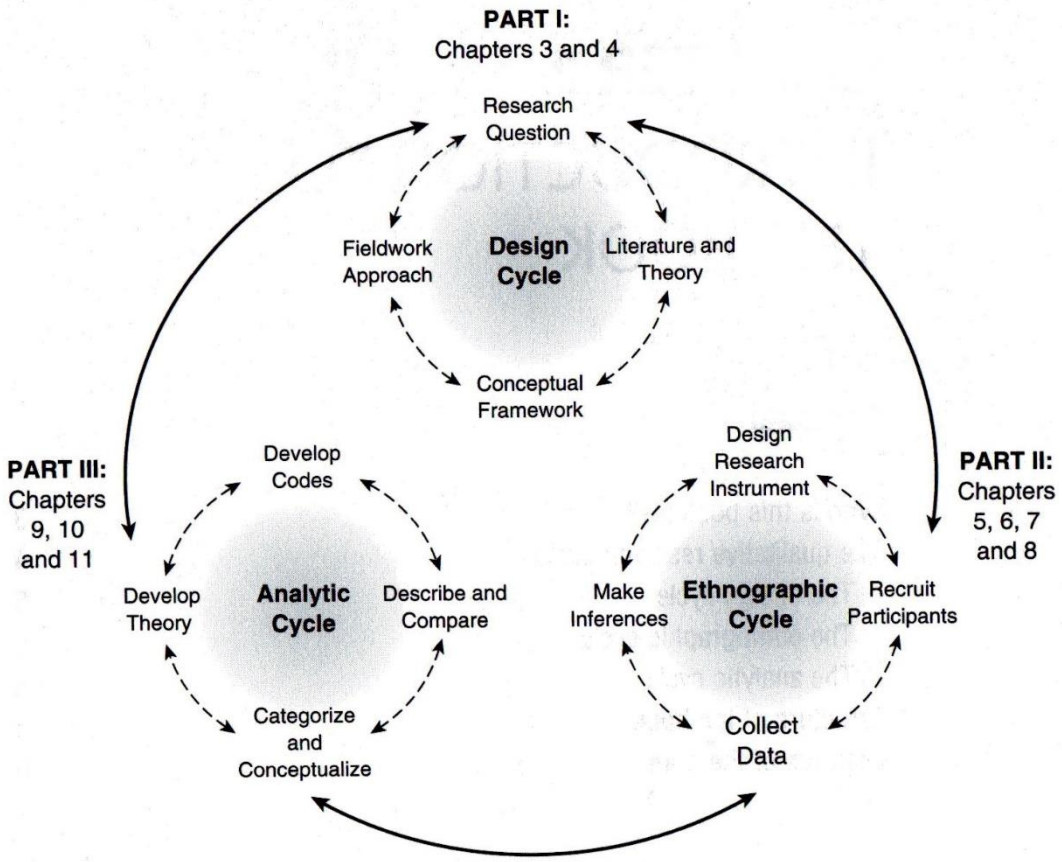


Figure 1.1 Hutter–Hennink qualitative research cycle

Ref: Hennink, Hutter, Bailey, 2010

Role of researcher in qualitative research

- “Research instrument” – conducting data collection and data analysis
- Reflection = Necessary part of research
    - Bracketing: checking assumptions about the research (topics, participants)
        - Before data collection
        - Unsubscribing ensures full awareness of assumptions
    - Being open to and reflecting on comments from others during the research process
    - Balance between distance and commitment – going native
    - Reflective memos

Summary

- Open research questions starting with why and how.
- Understanding phenomenon rather than measuring it
- From the perspective of the participant.
- Researcher is research-tool: direct observations.
- Integration of data-collection and data-analysis.

Approaches to qualitative research

Research paradigms

- Positivism
  - Reality is:
    - Objective
    - Verifiable
    - Predictable
  - Value free
  - Is problematic when conducting experiences, behaviors, emotions of people (people have values and are able to reflect)

- Interpretative approach
  - Reality is not objective
  - Subjective experiences of reality are recognized
  - Understanding reality from perspective of the person who experiences this reality

Approaches in qualitative research

- Grounded Theory
- Phenomenology
- Ethnography
- (Participatory) action research
- Case study
- Ethnomethodology:
    - Discourse and conversation analysis

Ref: De Boer & Smaling, 2011

Grounded Theory

- Glaser and Straus, 1967
- To fight against dominance of quantitative research
- Systematic method in qualitative research is possible
- Showed that qualitative research can lead to theory
  - Other way around: not starting with theory, but finishing with theory
- Has led to qualitative research being accepted as valuable form of research

- Example why research questions:
  - Why do caregivers of people with dementia seek information about dementia other than that supplied by physicians?

Phenomenology

PLOS ONE

'The eyes of others' are what really matters: The experience of living with dementia from an insider perspective

Abstract

Introduction

Methods

Results

- Husserl, philosopher
- Reality is formed by people's interpretation of it
- Study of the real-life experiences
- Interpretative approach
  - describing rather than explaining
  - what is happening rather than why it is happening
  - Example:
    - To contribute to our understanding of the day-to-day experiences by providing an idiographic description of what it *means* existentially to be in the world as a person affected by a form of dementia (Van Wijgaarden et al, 2019)
- Often interviews

Ethnography

- Originates from cultural anthropology
- Focusing on the reconstruction of (an aspect) of a (sub)culture, society or group
- Participatory research: researcher is part of the living world
- Assumption: a culture can only be studied in detail by being there for a longer period of time
- Different data collection methods

- Example: what goes on in an elderly home for people with dementia during an average week?

(Participatory) Action research

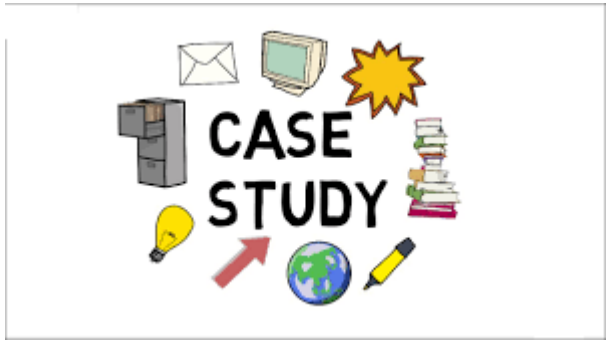
- Action research:
  - Joint research practice of researchers and participants to improve actions of participants
  - Research in, with, by, for and within a (social) network
  - Developing (and testing) new actions:
    - Organizational and policy change
    - Develop or renew actions of professionals (e.g., health care, education)
    - Collective learning of actions (e.g. healthy eating)

- Participatory:
  - Research in which stakeholders participate as co-researchers
    - Formulating research question
    - Study design
    - Data collection, data analysis, reporting

- Example:
  - Developing learning course for medical students about dementia

Case study

- Investigating a case in depth and breadth
  - Department
  - Incident
  - Specific group
- Often used in policy research
- Multiple case study



- Example:
  - Following one person with dementia (and the caregivers) for a longer period of time

Ethnomethodology

- Language / communication

- Discourse analysis:
  - Everything that plays a role in communication (text, media, film, etc)
  - Research into the way in which opinions and realities are constructed in language
- Conversation analysis
  - Analysis of conversations
  - Interactions and relations between people

- Example:
  - How do people with dementia participate in a conversation?
  - Use of methaphors

Mixed methods

- Combining different types of qualitative studies
  - Eg combining observations, in-depth interviews, FGD, document analyis
- Combining qualitative and quantitative studies

- Designs:
  - Sequential designs
  - Concurrent or triangulation designs

Mixed methods – why?

- Adding depth
- Validation of data
- Quantifying results qualitative study
- Interpretation results quantitative study

Mixed methods - examples

- Development questionnaire – topics and vocabulary
- Identification of best recruitment strategy
- Identification best way to implement trial / intervention
- Development of an intervention
- Understanding working elements of intervention

- Evaluation research:
  - Effect
  - Process

Summary

- Different approaches
  - Grounded Theory
  - Phenomenology
  - Ethnography
  - Participatory action research
  - Case studies
  - Ethnomethodology
  - Mixed methods
- Research question determines which approach could be used

Quality criteria

Quality criteria

- Guba and Lincoln, 1989

Terminology positivism	Terminology constructivism
Internal validity	Credibility
External validity	Transferability
Reliability	Dependability
Objectivity	Confirmability

- Techniques:
  - Triangulation
  - Peer debriefing
  - Member checking
  - Reflectivity
  - Negative case analysis
  - Transparency: audit trail

Credibilty

- Internal validity – credibility: How do I know that the results are not the interpretation of the researcher?
- Techniques:
  - Member checking
  - Every interpretation should be proved with data

Member checking

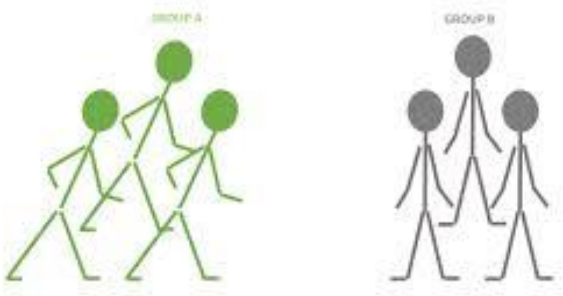
- Ask participants (or representatives) to assess the adequacy of report

- Strong variant: assess research report
- Weak variant: assessment of transcript

- Are conclusions recognizable?

Transferability

- External validity – transferability: to what extent are finding applicable to broader population
- Concept generalization
- Techniques:
    - Detailed description of setting and participants

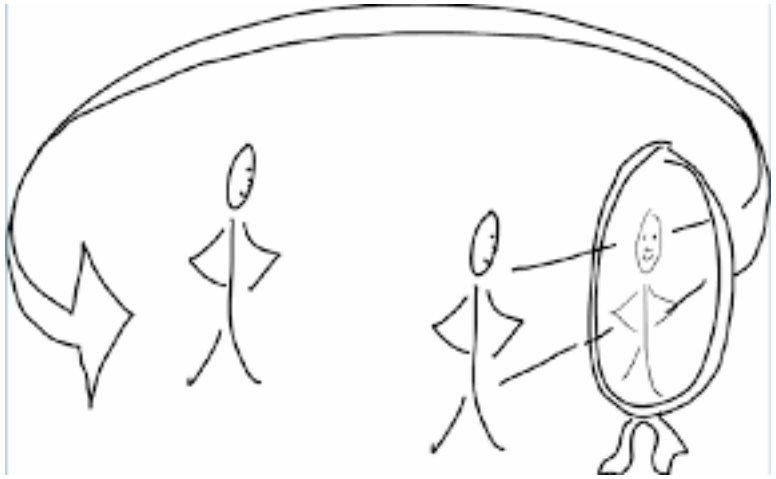


Reliability / dependability

- Internal:
  - Agreement between members of research team
  - Techniques:
    - Number of transcripts coded separately by colleague => blind spots, bias
    - Intercoder reliability
    - Peer debriefing
- External:
  - Same study -> same themes
  - Actual repetition not possible, because the situation under investigation changes
    - Virtual repeatability
  - Technique:
    - Being transparent:
      - Extensive reporting of research - audit trail (log book)

Reflectivity

- Important in in all research phases
- Your reflections, thoughts, questions, issues etc
- Memos or annotation tools
- Part of the audit trail



Summary

- Quality criteria:
  - Credibility
  - Transferability
  - Reliability
  - Reflectivity

- Techniques:
  - Member checking
  - Detailed description of setting
  - More than one researcher => peer debriefing
  - Being transparent => audit trail (logbook)

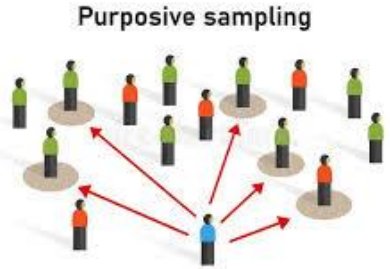
Sampling and recruitment

Sampling

- Purposive / purposeful sampling:
  - the researcher selects participants based on their knowledge and expertise of the subject under investigation (Talbot 1995, Polit and Tatano Beck 2006)
  - Sample is chosen to reduce sample bias rather than achieve generalizability (Morgan 1997)
  - No random sample

  - Criterion-based: specific criteria
    - Homogeneous
    - Heterogeneous => maximum variation sample
    - Example – sample of people with dementia:
      - Age, gender, living situation, type of dementia, stage of dementia

  - Theory: interim analysis
    - Participants who confirm, supplement or disprove findings



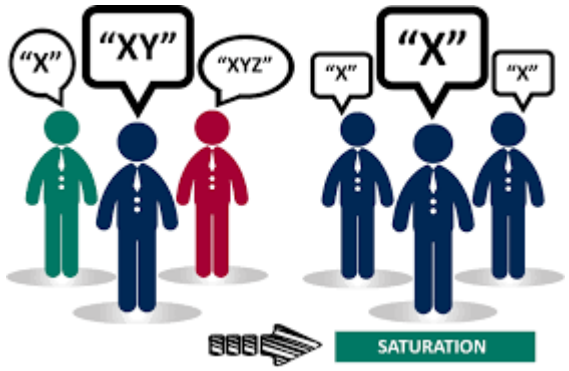
Sampling (2)

- Convenience sampling:
    - Pragmatic approach when few potential participants are available

- Recruitment participants
    - Patient associations
    - Ads
    - Social media
    - Gatekeepers / gatekeepers
        - Eg healthcare professionals
        - Potentially biased message
        - Power issues
    - When using one a way of recruiting => often selection of certain people

How many participants?

- Saturation
  - Entirely or per target group
- In research proposal => often range
  - Subject of study: broad or specific
  - Type of research: exploratory or focused
  - Diversity of participants
  - Data collection method
  - Previous research
  - Sources (time, money, skills)
- Interviews
  - In a homogeneous group ±15 interviews



Summary

- Purposive sampling
- Maximum variation sampling
- Data saturation

In-depth interviews

Interviews

- Most often used method in qualitative research

- Definition
  - *One-to-one method of data collection that involves an interviewer and an interviewee discussing specific topics in depth*

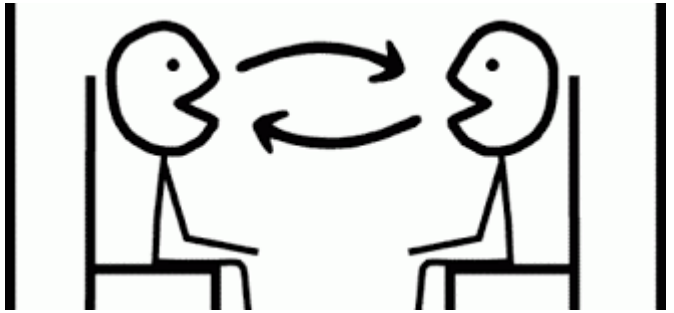
Aim interviewing

"To find out what is on someone's mind…We interview people to find out from them those things we cannot directly observe….. We want the respondents' own perspective to emerge, explore the ways in which people working together share common understandings, get insight into particular experiences, find out motives behind decisions, get a view of informal procedures, consider apparent contradictions between attitudes and behaviour, and allow respondents time to provide their answers."

Patton M (1990) Qualitative evaluation and Research Methods, Sage Publications

Differences interviews and daily conversations

- Interview is research tool: purposeful act to collect information
- Researcher determines subject
- Researcher conducts the interview
- Answer is not predetermined
- Participant determines scope and type of information that is given



Type of interviews

- Continuum
    - Structured interview:
        - Closed questions
    - Semi-structured interview:
        - Interview scheme / topic guide (incl prompts)
        - Open questions
    - Narrative:
        - Interviewer encourages participants to tell a narrative (story) in detail – with minimal interruptions by interviewer
    - Informal:
        - “normal” conversation

Role of interviewer

- *"qualitative interviewing is a form or social interaction in which the interviewer must be able to listen to, and encourage, the accounts of others so that they feel safe to tell their story or share their views" (Green and Thorogood, 2004)*

- Interviewer is "actor" in the interview => interviews are composed by interviewer and interviewee

Role interviewer

- Immerse yourself in the respondent's world
  - Use of language
  - Clothes
- Being open and interested
- Having respect for respondent's opinion / perception
- Listen intensely
- Make sure you understand each other
- Improvise: responding to what happens during the interview

Roles during interview

- Researcher:
  - Study objective and research questions form the framework
- Director
  - Responsible for the smooth running of the interview
- Summarize
  - Way to check whether you have understood the respondent
  - Requires concentration
- Atmosphere maker
  - Provide a safe atmosphere

Roles during interview (2)

- Teacher
  - Explain (e.g. purpose of research)
- Searching
  - Searching for perception / knowledge of respondent
  - Requires technical interview skills
- Detective
  - Supplement to searching: people do not immediately expose everything
- Linesman
  - Guarding boundaries
- Timekeeper

Ingredients good interview

RAPPORT

Listeling skills

Building rapport

- Rapport = sense of security, familiarity
  - Is essential for the quality of the data

- Friendly from first contact
- Participant has important information - appreciate this, indicate this
- Non verbal:
  - To nod
  - Encouraging facial expression
- Mirroring:
  - Body language
  - Language
- Show that your participant understands

Listening skills

- Active listening:
  - Hear what is being said
  - In doing so, empathize with interviewee
  - Do not fill in for respondent
- Pay attention to non-verbal cues
  - Boredom
  - Fatigue
  - Emotions: fear, shame
- Showing that you listen
  - Verbally: asking follow-up questions and summarizing
  - Non-verbally: interesting attitude

Behaviour of interviewee

- Inconsistent answers
  - Cross-checking: bring-up
- Divagation
- Many talkers
  - Interim summaries => return to topic
  - “I want to go back to …….”
- Oyster
  - Only yes/no answers
  - "Can you tell us more about that?" "Can you describe an example for me?"
  - Make it negotiable
- Mistakes / forgetfulness
  - Stream of consciousness

Interviews - practical

- Quiet environment:
  - Presence of others
  - Disturbances

- 90 degree angle or v shape

- Prefer not to sit at a table

Interviews - practical

- Be on time

- Recording:
  - Audio and/or video
  - check equipment
  - background noise

- Reflect on:
  - Presentation researcher:
    - Clothing choice
    - Positioning - power relationship
  - Man / Woman

After the interview

- First steps of analysis:
  - Make notes (summary) in logbook
  - Transcription
  - Listen or read the interview:
    - Interrupted
    - Longer silence
    - Can continue to ask
    - Questions: judgment, too leading, closed directionally
    - Also ask for feedback from other researcher (supervisor)

Summary

- Interview = *One-to-one method of data collection that involves an interviewer and an interviewee discussing specific topics in depth*
- Different types of interviews: continuum structured – informal
- Interviewer is “actor” in the interview
  - Different roles
  - Rapport and listening skills are important
- After interview first start of analysis

Focus group discussion

Introduction

- Focus groups (FG) have their roots in the interviewing techniques developed in the 1930s by sociologists and psychologists who were dissatified with traditional surveys.
- FG are groups of unrelated individuals that are formed by a researcher and then led in group discussion of a topic for 1 to 2 hours.
- Researcher asks specific questions and guides the discussion to ensure that group members address these questions, but the resulting information is qualitative and relatively unstructured.
- FG do not involve representative samples; a few individuals are recruited
  - knowledge pertinent to the topic
  - share key characteristics with the target population
  - time to participate

Introduction

- FG are used to collect qualitative data with open-ended questions posed by researcher or group leader/moderator
- An optimal FG has approximately five questions (Nagle, Williams).
- The researcher, or group leader/moderator, uses an interview guide, but the dynamics of group discussion often require changes in the order and manner in which different topics are addressed (Brown 1999).
- Formal procedure does not exist for determinig the generalizability of FG answears, but the careful researcher should conduct more than one FG, and check for consistency in the findings.
- Some FG experts advise conducting enough FG to reach the point of saturation, when an additional FG adds little/no new information to that which already has been generated (Brown 1999).

Common uses for focus groups

- collecting general background information on a topic of interest
- generating research hypotheses that can be tested through larger quantitative studies
- the purposes of stimulating new ideas and creative concepts
- identifying potential problems with a new programme or service
- generating impressions of services, programmes or products
- learning how participants talk about the topic of interest which can assist with the design and construction of other research tools such as questionnaires
- assisting with the interpretation of previously obtained quantitative results (Stewart et al. 2007)

Focus groups are not suitable when:

- seeking consensus
- seeking sensitive information that cannot be discussed in a group
  - Or the confidentiality of information discussed cannot be ensured
- seeking statistical information
- the environment is emotionally charged or there is conflict in the group
- the locus of control is with participants and not with the moderator
- other methodologies can produce better quality information (Krueger, Casey 2000).

Planning focus group interview

1) think or reflect carefully on the purpose of the research study;

2) organize thoughts and ideas rationally;

3) answer a series of questions regarding the study:

- Why is the study important?
- What are the consequences of not conducting the study?
- What types of information will the study provide?
- How will the information be used?

- 4) write answers and give to others to critique and provide feedback.

Planning focus group interview

- Fern (2001): purpose of the research study is important when considering whether to use FG.
- The objective of the research is necessary for framing the task of the FG and for all subsequent decisions the researcher will make.
- FG may be of different types,
  - may form part of a mixed-methods approach
  - May be used as the only means of data collection
- Careful preparation always required to ensure the interview runs to plan.

Planning FG interview

- May appear simple but can be the most complicated stage of the FG process.
- Begin by putting your thoughts on paper and asking others for critical feedback.
  - move beyond your personal experiences and take account of the views and insights of colleagues.
- Helps to keep the study on course and allows the researcher to complete the study within the time schedule.

FG - participants

- FG useful when specific types of information are needed from people with certain characteristics and similar knowledge about a particular topic.
  - Individuals in a group are more willing to express their views when they perceive that others are similar to them in some ways.
- The characteristics of FG participants depend on the purpose of the research;
  - Usually consist of demographic factors, such as age, sex, educational background
  - Also knowledge or experience of the topic under investigation.
- Individuals selected to participate in a focus group must be willing and able to contribute the required information (Stewart and Shamdasani 1990).

Focus groups - participants

- Most FG involve 6 to 8 people, a number that facilitates discussion by all in attendance.
- Usually do not know one another.
- Opinions differ on the value of using homogenous - may be more convivial and willing to share feelings - versus heterogeneous participants (may stimulate more ideas (Brown 1999).
- Characteristics of individuals that determine their inclusion are based on the researcher´s conception of the target population for the study.

Pre-Focus Group Planning – personnel and tasks

- Staff – a minimum of three staff – 1 administrator and 2 (assistant) researchers are needed for the focus group event
- Tasks may be split between staff
  - administrative staff – preparing and sending information materials for participants, organizing logistics, set up and clean up after the event, distribution of payment if appropriate
  - research staff – recruiting potential participants in the FG, recording proceedings, analyzing data and preparing report.

Pre-Focus Group Planning – define concepts to investigate

- Purpose:
  - What kind of information is needed?
  - How will the information be used? By whom?
- Participants: for example, customers, employees, decision groups, etc.
- How to select participants, appropriate incentives for various groups and ideal questions and moderator characteristics to maximize participant engagement.
- Number of sessions.
- Consider whether different subgroups of the population have expected generalizability to the population at large.
  - See previous notes on bias and generalizability
- Develop your description of the problem.
- Formulate potential questions in terms of issues for discussion.

Pre-Focus Group Planning – logistics and recruiting for focus group participation

- Select a location that is easy to find, minimizes distraction, provides a neutral environment and that ideally facilitates sitting in a circle.
- Plan/schedule for the FG.
- Determine the planned FG size.
- Recruit participants at least 1-2 weeks prior to the scheduled FG.
- Invite potential participants.
- Send personalized letter of invitation to each person who has been pre-selected and who has confirmed to their availability and interest in participation.
- Call each of the focus group participants the day before the event to remind them.
- Recruit a focus group moderator(s).

Pre-Focus Group Planning – practical preparations

- Prepare copies of any questionnaires or handouts, if there are any.
- Identify small talk topics for discussion with participants as they arrive. Avoid the focus group topic.
- Secure audio or video-recording equipment, extra batteries, tapes, extension cords, notepads and pens.
- Make nametags.
- Arrange furniture in the room.
- Ensure absence of disruptive background noise that might interfere with discussion and recording.
- Set up and test recording equipment.
- Set out refreshments.
- Have honorariums and/or travel imbursement money ready.

Conducting Focus Group (moderator)

- Participant arrival –greet guests and make small talk (not topic of the focus group)
- Introduction
  - begin taping the session,
  - welcome the group, introduces his/herself and gives background info, overview of the topic.
  - Emphasize opportunity for participants to give their opinions and researchers are there to learn from them.
  - what the results of the focus group will be used for and what form the data will take
  - ground rules, warm-up question, introduction question (if any) and then moves to the other questions/topics as pre-decides.
- Conclusion – the moderator briefly summarizes the main points of view and then asks if anything was missed. Answer any final questions about the focus group work, thank the groups members for their participation.

Post Focus Group - analysis

- Start while still in the groups – listen for inconsistent comments and probe for understanding, for vague or cryptic comments and problem for understanding; consider asking each participant a final preference question; offer a summary of key questions and seek confirmation.
- Immediately after the focus group – draw a diagram of the seating arrangement; spot-check tape recording to ensure proper operation; conduct moderator and assistant moderator debriefing; note themes, hunches, interpretations and ideas; compare and contrast this focus group to other groups; label and file field notes, tapes and other materials.

Post Focus Group - analysis

- Soon after the focus group (within hours) analyze individual focus group – make back-up copy of tapes and send tape to transcriptionist for computer entry if transcript is wanted; analyst listens to tape, reviews field notes and reads transcript if available; prepare report of individual focus group in a question-by-question format with amplifying quotes; share report for verification with other researchers who were present at the focus group.
- Later (within days) analyze the series of focus groups (if applicable) - compare and contrast results by categories of individual focus groups; look for emerging themes by question and then overall; construct typologies or diagram the analysis, describe findings and use quotes to illustrate.

Additional best practices and potential pitfalls

- A focus group needs to build synergy and secure cooperation from the members. Thus, it is crucial that communication be open and trust is built quickly. This helps encourage new ideas. It is necessary to choose the right focus group members, as well as facilitator, in order to make the information flow positively.
- Some additional guidelines for effectiveness include:
  - Secure skilled personnel to identify and moderate the focus groups.
  - Record the sessions.
  - Ensure the atmosphere in the group is informal.
  - Use an interviewer, guide or facilitator – do not use a questionnaire.
  - It is not always appropriate to give participants advance notice of the material.

Summary

- **Participants** – carefully recruited, 5 to 10 people per group, 6-8 preferred, similar types of people, repeated groups
- **Environment** - comfortable, circle seating, tape recorded
- **Moderator** - skillful in group discussions, uses pre-determined questions, establishes permissive environment

Interview vs FGD

- Focus group: result interaction
- Group level vs individual level
- Width vs depth information
- Choice depends on context study

Topic guide

Topic guide

- A set of topics, themes, probes that serve as a guide for an interview
- Varies in length and detail
- Based on:
  - Literature
  - Previous experiences
  - Conversations with professionals, patients and colleagues
  - Previous interviews
- Is a "guide"
- Flexible

Phases interviews

- Opening
  - Put respondent at ease
  - Introduction study and interview
  - Ensure confidentiality
  - Informed consent
- Opening questions
- New topics introduced with a main question
- Working towards closure of the interview – closing questions
  - Lighter topics
  - Asking for advice
  - Is there anything else that you would like to share?
- Closure
  - Thanking participant

Interview questions

- Operationalization of research question
- Take into account:
  - Communication: encourage interaction
  - Relationship: open and equal relationship
  - Perception: respondent's language use
- Usability test
  - How will information be used?
  - What do possible answers mean for the usefulness of the information?

Type of questions

- Main questions
- Probes
- Follow-up questions
- Analytical questions

Main questions

- Result from research questions
- Translate research question into interview questions
- Structure the interview

- Considerations:
  - Scope: Question indicates topic of interview
  - Abstraction level: concretely expressed in everyday language

Probes

- Stay on topic
- Clarify information obtained
- Signal that you are interested

- Two type of probes
  - Topical probes
  - Motivational probes

Topical probes

- Interrogating by topic
  - Incidents: examples
  - Situating: where / when / with whom
  - Conditional: when not relevant
  - Analytical: how does the respondent feel about it

Motivational probes

- To summarize
  - Am I summarizing it that well?
- To Parrot:
  - Repeat answer
  - ……., do I understand that correctly?
- To ask for clarification:
  - can you explain that more?
- To encourage / invite:
  - Verbal: hmm, yes, ok
  - Non-verbal: nod, look inviting
  - Being silent
    - Gives time to organize thoughts
    - Brings peace to the interview

Follow-up questions

- Going beyond interrogating
- New themes
- Focusing on expansion, addition

Analytical questions

- Discuss relationships that you suspect
- Give the participant some results of the interviews to reflect on
- Especially useful at the end of the project
- Can help clarify themes

    - *Some of the people I've interviewed say that ……, why do you think that is?*

Different type of questions

- Narrative
  - *Can you tell me about everything that happened after you suspected something was wrong with you?*
- Open
  - *How was the cancer diagnosed?*
- Closed
  - *Who communicated the diagnosis to you?*

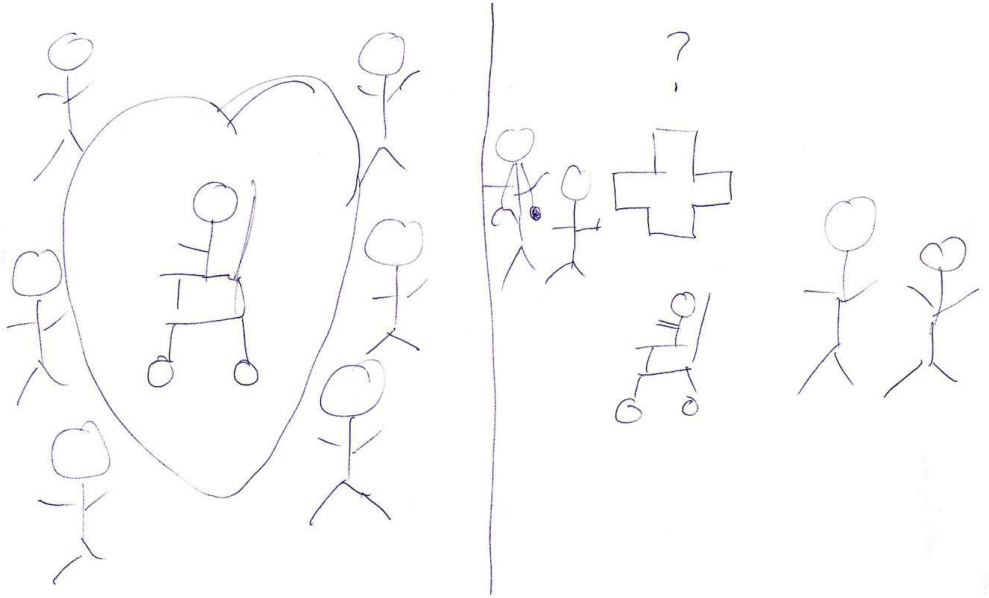
Formulating interview questions

- Open questions
  - What did you think about our program? Where do you get information about ……?
  - Avoid phrases such as „how satisfied“ or „to what extent“.
  - Avoid dichotomous questions (yes/no. Good/bad. True/false)\
  - Be careful of “why” questions. Better “Tell us about reasons…”
- No guiding questions
- One question at a time
- Clear questions
- Ask for concrete experiences instead of abstract and theoretical questions
  - Use „think back“ questions – take people back to an experience and describe
- Avoid technical and professional language

Elicitation

- Techniques to provoke/trigger/elicit reaction that give insight in the experiences of people
- Verbal and non-verbal
- Examples:
  - Diary method
  - Asking for critical incidents (best or worst experience)
  - Vignettes / cases
  - Theses / statement
  - Objects / pictures
  - Complete half sentences
  - Have drawings made
  - Free list and pile sort

Examples elicitation



Closing the interview

- Close the interview
  - *I've been able to ask all my questions, is there anything else you'd like to say*
- Switch to another topic
  - *How is your daughter?*
- Let the audio run for a few more minutes
  - The after the interview strip (Warren et al., 2003)

Questions Focus Group Discussion

- Use different types of questions – opening, introductory, transition, key and ending.

- Use questions that get participants involved – use reflection, examples, choices, rating scales, drawings, etc.
  - Although consider how easy the results are to use

- Focus the questions – sequence that goes from general to specific.

Funnel design FGD

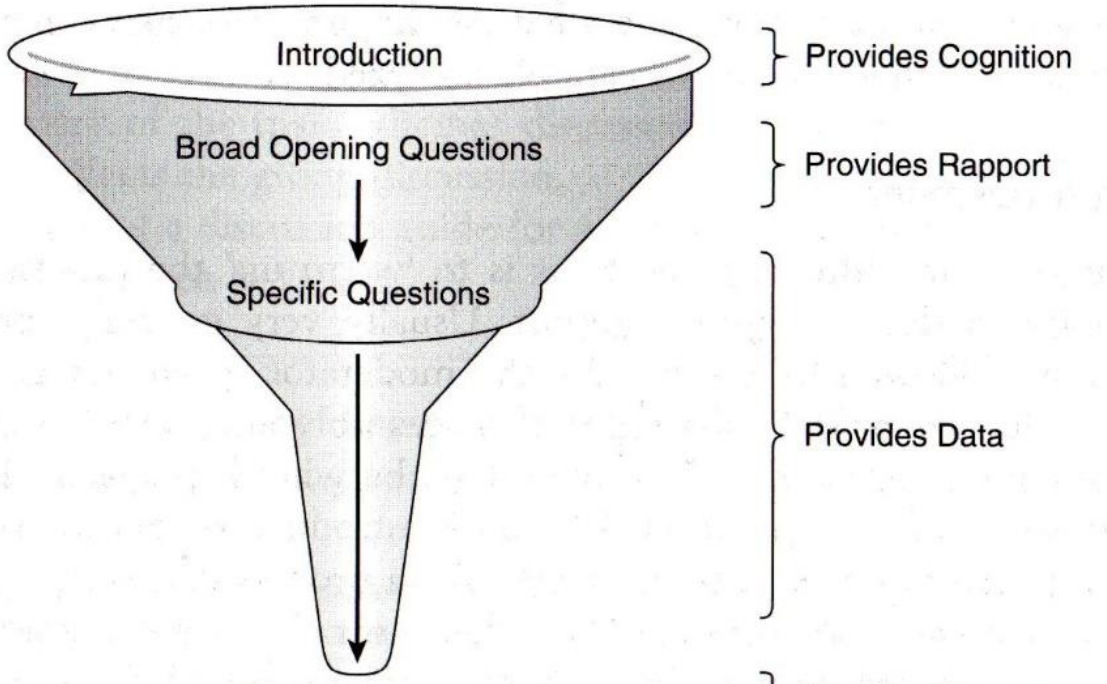


Figure 7.1 Funnel design of the discussion guide

Closing questions FGD

- All things considered question – asks participants to reflect on the entire discussion and then offer their posistions or opinions on topics of central importance to the researchers: „Of all the things we discussed, what is the most important?“)
- Summary question – after the brief oral summary the question asked is: „Is this an adequate summary?
- Final question – after reviewing the purpose of the study and then asks the participants: „Have we missed anything?“ (Krueger 2002).

Elicitation in FGD

- Some other options for getting interaction:
  - Choose from the following options…
  - Make a list
  - Fill in the blank
  - Rate with blank card
  - Semantic differential
  - Projection, fantasy and daydreams
  - Draw a picture
  - Develop a campaign
  - Role playing
  - Questions that foster ownership – what can you do...? (Krueger 2002).

Example (Nagle, Williams)

- “Hello. My name is …. Today we would like to have a conversation with you about …. What we are trying to accomplish before we leave here today is to get a better understanding of …. Are there any questions?”
- Respond to participant questions.
- “Let’s go over some rules. First, let’s all turn off our cell phones so we are not interrupted. So we can keep track of what people are saying, remember that we have one person talking at a time. Please do not interrupt someone when they are talking. Also, everything you tell us today will be kept completely confidential. We will summarize the things you tell us and combine it with other focus groups we are giving. One of my jobs today as the moderator is to make sure we discuss all of the issues we planned to discuss. If I ask you questions while you are talking, I’m not being rude; I’m just making sure everyone has a chance to talk and that we discuss all of the issues.

Example

- “Just to get us started, let’s have everyone tell us your name, AND OTHER INFORMATION YOU MAY BE INTERESTED IN. (Point to someone to start; randomly select people to demonstrate that people do not talk in sequence).
- “Let’s begin.”
- **Questions 1-5** (X minutes)
- 1. Question
- Prompt: Question to promote further question
  Probe: Question to examine an issue at a deeper level
- 2. Question
- Prompt: Do you interact with any other groups of staff?
  Probe: What do you think is most useful about working with this group?
- 3. Question
- Prompt: Are there any difficulties in giving people the help they want?
  Probe: What sort of problems do you encounter?
- ….

Example

- **Closure** (X minutes)
- “Are there any final questions? (Respond to questions) Thank you for participating in focus group today. We are excited to learn about what you think.

Summary

- Opening – main questions – closing questions
- Translating research question into interview questions
- Interview guide / topic guide / topic list
- Type questions:
  - Analytical questions
  - Open questions
  - Narrative questions
  - Closed questions
- Formulating questions:
  - Open questions, no guiding, clear questions
  - Asking for concrete experiences
  - Avoiding technical and professional vocabulary
- Elicitation

Ethical issues

Aims

- Provide an overview of *health-related research governance processes*.

- Outline broad *ethical principles* that underpin good research and the aspects of ethical practice (designing, conducting, disseminating research).

- Structure: reflects ways of deliberating research ethics, tackling *overarching philosophical principles*, before moving on to *formal codex* and *archiving data* .

Ethical practice

- Depends on the researcher who ensures *rigour and quality of research*.
- Requires reflexivity, and an ability to consider and reach a decision on *„the right thing to do“*.
- Is governed by the legislative and regulatory frameworks of health-related research.
- *Ethical practices* must bring general benefits in terms of surveillance, promote social equality, respect the rights of individuals, and should be carried out according to critical management with regard to responsibility.

Ethical principles

Four principles for ethical practice in health care are delineated :

1. autonomy (allowing patients or participants to make their own decisions)
2. beneficence (seeking to do good)
3. non-maleficence (doing no harm)
4. justice (acting in ways that are fair and equitable)

- These principles should be thought of as *values that inform ethical conduct in research.*
- In practice, researchers may need to make trade-offs between these principles when pursuing their research aims.

Ethical standards and guidelines

- Professional standards do not have to be strictly observed, so compliance with them is *not legally enforceable* (except for GDPR and informed consent).
- *ACE ethics guidelines* represent ethical and professional rules standards in epidemiology that can be considered normative.
  Source: McKeown, R. E. et al. (2003) "American college of epidemiology ethics guidelines: Foundations and dissemination", Science and Engineering Ethics, 9(2), s. 207–214.
- *Good Epidemiological Practice Guidelines* set out strict rules on how to treat persons involved in epidemiological studies.
  Source: Hoffmann, W. et al. (2019) "Guidelines and recommendations for ensuring Good Epidemiological Practice (GEP): a guideline developed by the German Society for Epidemiology", European journal of epidemiology. 2019/03/04. Springer Netherlands, 34(3), s. 301–317. doi: 10.1007/s10654-019-00500-x.

Ethic formal codex

Formal codes of ethics, and practice guidelines developed by professional bodies and institutions, highlight three core concerns that researchers working with human subjects should attend to, namely:

1) informed consent
2) confidentiality
3) anonymity

Informed Consent

- Addresses the *Nuremberg and Helsinki requirements* that research participation should be *voluntary* and that participants should have a *full understanding* of what being involved in research will entail.
- Obtaining informed consent in qualitative research cannot be accomplished merely by the mechanistic production of a consent form signed at the outset of the episode of data collection (researcher often cannot control because of unexpected situation e.g. sensitive information about participants, disruption of observation, new topics emerge during the research process).
- It demands *continuous negotiation* of the terms of agreement as the study evolves, that means obtaining informed consent in qualitative research is not a once and it is conditioned by the legislative norms of the country (ethics committees can be informed of these changes by submitting amendments to the initially approved protocol).

- **The person concerned is free to withdraw the consent at any time!**

Confidentiality

- *Assurance of confidentiality* is the major safeguard against the invasion of privacy through research.
- Every health care practitioner confidentiality requires by *Hippocratic oath*, thus *no personal information is passed to not involved* in the care of the patient except in exceptional circumstances.
- It is essential that the researcher is clear at the outset as to what confidentiality means in the context of the particular study, thus to explain the kinds of output that might be expected from the study.

Confidentiality

- Information could not be used directly, such ‘data’ could legitimately be used to inform the researcher’s understanding of other similar situations that could be quoted (the participant wants the researcher to be informed, but for that information to remain private).

- *Use and transmission* of non-aggregated observational data for research purposes must be approved by a properly established and trained *research ethics committee*.

Anonymity

- Changing the names of participants and obscuring the location of the research may seem a straightforward means of *protecting the identity of research participants*.
- Level of detail necessary to support and situate research claims complicate *simple anonymization* in qualitative research (interview transcripts contain multiple clues to a person's identity such as employment details, place of residence, events that have occurred in their communities, and even the turns of phrase they use).
- Researcher should use easily concealed by *pseudonyms*.

Conflict of interests

- *Ensuring objectivity* at every stage of the research process.
- Maintaining fairness and impartiality in the design, processing, interpretation and communication of research results.
- *Non-conclusion of contractual obligations*, which are conditional on reaching concrete conclusions from the proposed study.
- Disclosure of only *potentially significant conflicts of interest* for study collaborators, sponsors, research participants, journal editors, and the employer.

Process of surveillance

- Surveillance must be subject to ethical control (there is an obligation to ensure adequate protection of rights when publishing and providing surveillance data).
- Should have a *clear purpose* and a *plan* for the collection, analysis, use and dissemination of data based on relevant public health priorities.
- Should be collected only for *legitimate public health purposes*.
- Should be *reliable, valid and timely* in order to achieve public health objectives.
- Owners of the surveillance data must ensure that the *identifiable data are adequately secured*.

Archiving

- Ethical issues may extend beyond the completion of a research study.
- Researchers are expected to *archive datasets digitally* for future use by other researchers. The main difficulty is anonymity.
- If the primary researcher redacts large amounts of data, this then raises the question of *whether the result is worth archiving* as this may generate a dataset which is unusable by another researcher.
- Despite all these caveats, it is increasingly worthwhile to consider the possibility that qualitative data may need to be archived when planning a project, since this may affect which data are collected, how they are described, and how they are stored.

Summary

- Doing any kind of research raises a number of ethical issues.
- Good ethical research practice will always involve careful thought and the ability to make judgements throughout the research process.
- Overarching principles, and legal and regulatory requirements, can delineate minimum acceptable standards of practice.
- Guidance documents and formal procedures can be helpful to navigate delivery of research, but researchers require reflexivity and, ideally, the support of other, experienced researchers to ensure best practice.

Remote and online qualitative data collection

Introduction

- COVID 19

- Internet offers opportunities for conducting research

- Interviews via Skype
- Online fora
- Chat programs
- Online focus group

Online data

- Extant online data
  - Public or private records
  - Eg fora, blogs, vlogs

- Researcher obtained online data
  - Talk-based approaches
    - Video interviews or FGD
  - Text-based approaches
    - Online FGD
    - Email interviews

Online data - advantages

- Broader range of participants
  - Greater geographical reach
  - Beneficial for people with impaired mobility, more challenging health conditions, who prefer online interaction
- No travel
- Less time-consuming, easier to schedule
- People increasingly familiar with online interaction so seem comfortable using it
- Longer duration => less concerns about time
- Online FGD: convenient and comfortable way of joining group discussions - unconstrained by time and place.
- Text-based approaches: no transcription

Online data - disadvantages

- Shorter answers
- Lacked contextual information
- Lower levels of relational satsifaction:
  - Impact on rapport
  - Impact on degree of disclosure
  - Loss of data richness
  - Less spontaneous reactions – difficult to acquire vivid group (OFG)
- Sampling impacts – selection bias
- Reliance on internet connectivity (and resultant impacts on both rapport and recording quality)
- Limited ability to see people's body language and non-verbal cues –loss of non-verbal information
- Higher chance of opt-out

Online interview

- Ethical vs technical issues – researcher side
  - Platforms, cloud vs local storage of recordings, interviewee video/audio + interviewer audio, working from home
  - Zoom – some studies; Skype –multiple studies; Teams –no studies?

- Interview requirements – participant side
  - access to technology (device, power, headphones, mic, data)
  - proficiency with technology & reading ability light, sound, location, fully charged devices

- Beyond our control
  - Network connection

- In-person interviews viewed as the ‘gold standard’ vs online interviews or telephone interviews (Johnson et al. 2019)

Online focus group interviews

- Participants participate via a computer in a group discussion led by a moderator

- Aim: interactive group discussion by stimulating participants to reply to questions and posts of other participants.

Two types

- Synchronously (in real time):
  - All participants simultaneously online
  - Immediately react to each other's responses
  - Quick inventory of opinions regarding small topic

- A-synchronous:
  - Participants are free to log in during a set period
  - Read responses and post comments at a convenient time
  - More suitable for complex topics – time for reflection

Advantages text-based FGD

- Possible higher quality of the data:
  - High quality of the data due to anonymity
    - Effective format for collecting sensitive or personal health information
    - Increased levels of self-disclosure
    - Visual anonymity reduces social desirability bias
  - Greater equality in participation
  - Absence of time-pressure allows considered responses – lengthier and more detailed

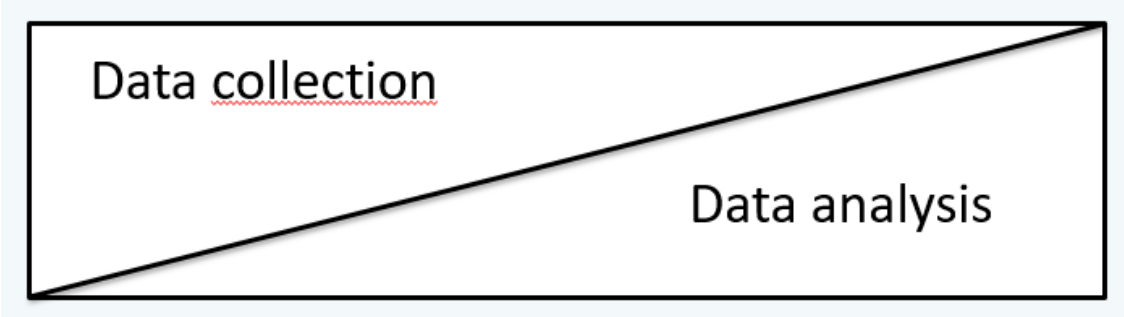
Summary

- Online options are available
  - Talk-based
  - Text-based
- Advantages
  - No travel
  - Access to people that are hard to reach
- Disadvantages
  - Lower levels of relational satsifaction
  - Selection bias
  - Loss of non-verbal contact
  - Loss of data richness

Qualitative data analysis

Introduction

- No clear recipe
- Depends on:
  - Aim of the study
  - Qualitative research approach



- Open and flexible => process in development
  - Record in memo
- Integration of data collection and data analysis
- Starts after first data have been collected

Inductive vs deductive analysis

- Inductive
  - From the data

- Deductive
  - Top-down approach: starting with developing codebook based on literature, interview guide, etc
    - A priori concepts
  - Completely deductive approach does not fit with qualitative reserach

- Abductive
  - Combination of inductive and deductive

What are qualitative data?

- Audio data
- Video data
- Transcript
- Observation notes
- Documents
- Drawings
- Field diary / notes / memos

Steps in qualitative data analysis

- Organizing data
  - data management plan
  - file naming
  - transcription
- Exploring data
- Coding data
- Description
- Comparison
- Categorising
- Conceptualizing
- Presenting

Organizing data

- Data management
  - Where do you store recordings, transcriptions etc

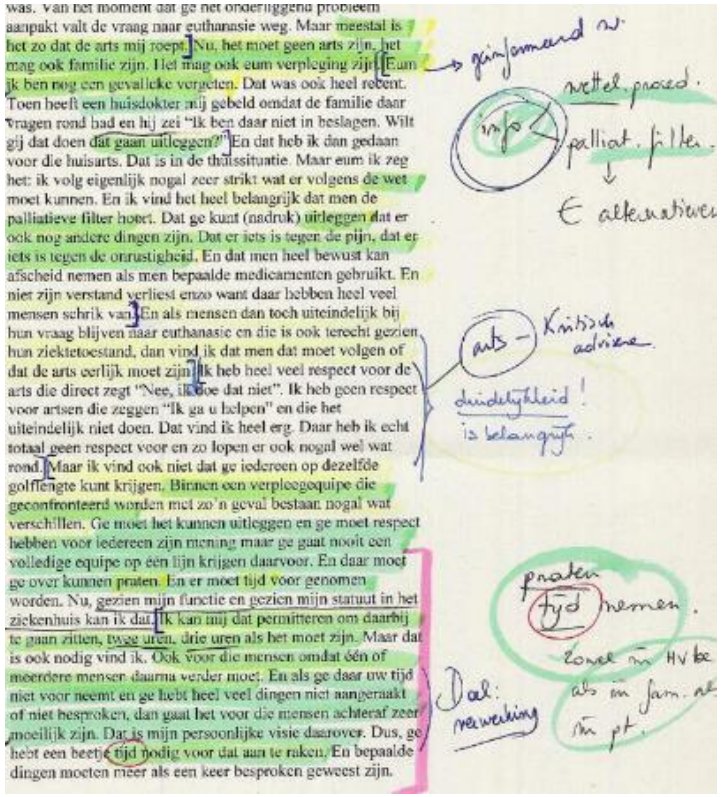
- File naming
  - Some participant details
  - Anonymous
  - Useful when using CAQDAS
  - Example
    - M_45_pre_NE
    - F_63_Tx_E

Transcription

- Translation process
- Unsubscribing what is actually said – not a readable version
- Interviewer and interviewee
- Identification of speakers
- Pauses and emotions (eg sigh, laughter)
- Anonymize
  - Removing identifiable information such as names, places
- 4-5 hours for 1 hour interview; 6-8 hours for 1 hour FGD
- Researcher, student-assistant or external person
- Starting asap – new topics or new recruitment of participants

Exploring the data

- *"Trying to get a sense of the interview/dataset as a whole before breaking it into parts" (Agar, 1980)*
- Listening to audio of interviews
- Reading and rereading of transcripts
- Summary of each interview/FGD/observation
- Memos:
  - Ideas, concepts
  - Documentation of thinking process
  - During whole analysis process
  - Related to segment, document or project



Coding

- Heart of qualitative data analysis
- Data reduction
- Coding as a filing cabinet
  - Sorting data into broad themes
  - Storing it where you can find it again
  - With other examples of the same thing
- Reflexive activity:
  - Researcher has to design the filing system and to decide about what to file and where to file

Coding - continuum

- Structured
  - Questions are basis for codes
  - Mostly deductive codes
- Semi-structured
  - Guide
  - Combination of deductive and inductive
- Unstructured
  - Blanco
  - Mostly inductive codes

Type of codes

- Attribution codes
  - Participant's characteristics
- In-vivo codes
  - Literally words = code
- Open codes
  - From the data
- Process codes
  - To describe a process
- Thematic codes
  - Based on literature, conceptual model, topic guide
  - Deductive codes

Codebook

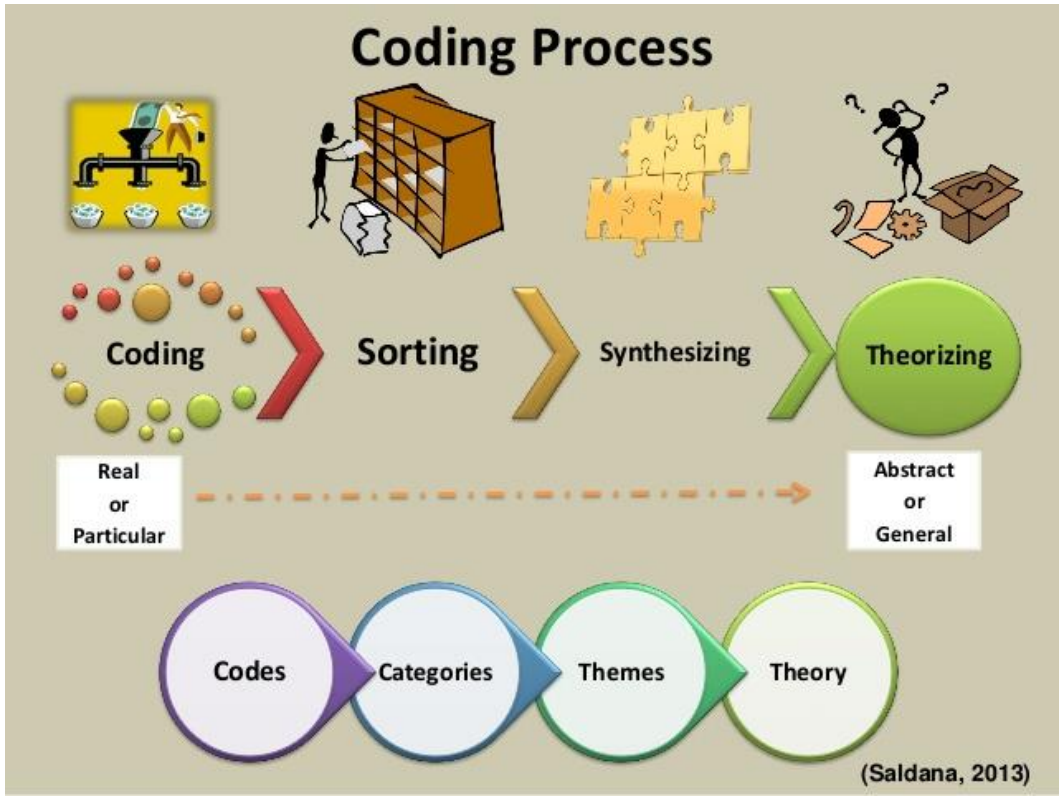
- Why?
  - Transparency
  - Inter coder agreement
- How?
  - Name code + label
  - Definition
  - In- and exclusion criteria
  - Examples / illustration

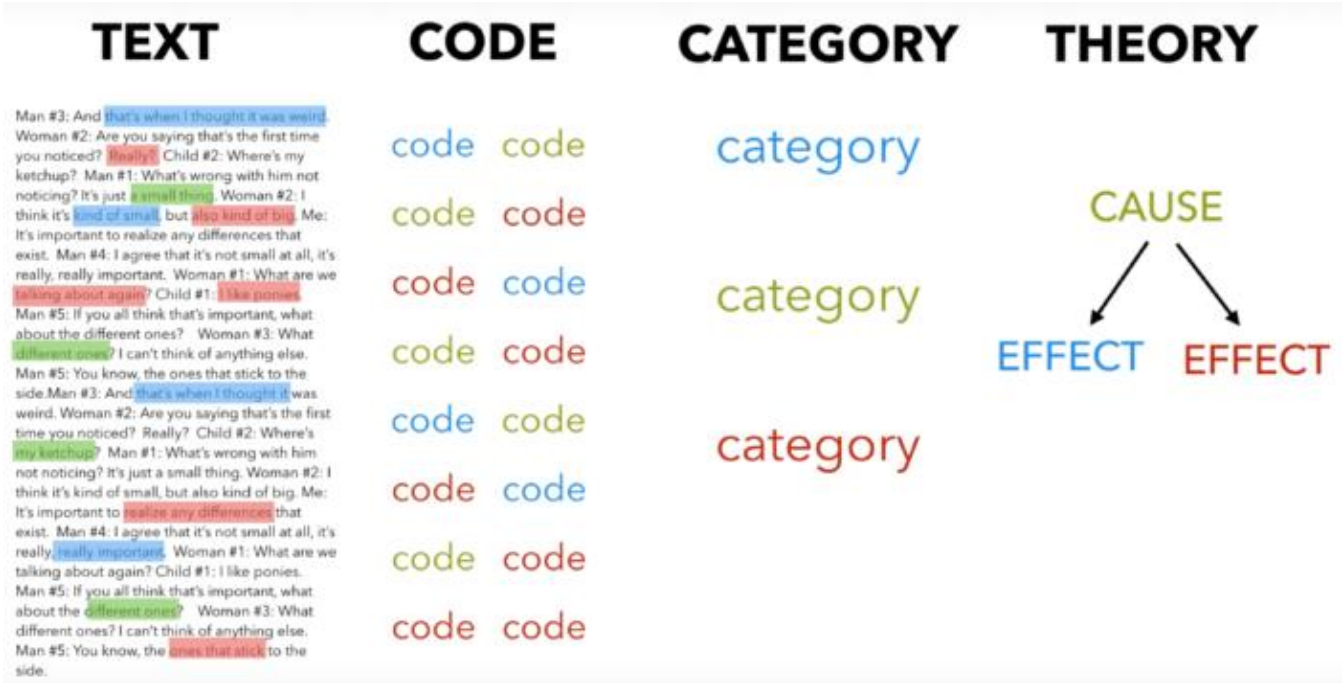
TABLE 8.4 ● Example of Codebook Entry for Theme "Fostering Relationships"

Theme	Code Name (shortened name)	Definition	When to use	When not to use	Example of a segment of text from study
Fostering relationships	Respectful interactions with one another (Respect)	Any evidence recognizing individual contributions as "mattering" or efforts that are valued	Use when interaction led to or hindered student success or trust/mistrust	When referring to outcomes—use actions or training—that is preparation	"This is their turf and I don't [want to] go in there and impose my will on [them]." Job et al. (2013).
	Candid communications among stakeholders (Communication)	Any evidence referring to communication relevant for informing student success	Descriptions of timing, quality, and frequency of information sharing—reports, referrals, team meetings	When referring to supports—use awareness or availability	". . . we have to have [an] openness and . . . willingness to listen without being judgmental. And I think when that comes, everything else will . . . come too. But for right now, there are still too many people that are willing to judge. . ."

Analysis process

Analyzing process





Analysis: interpreting

- *“abstracting out beyond codes and themes to the larger meaning of the data”*

- Aim: to describe or explore phenomenon or developing theory

- Organizing themes and “sense-making” of the data
  - Based on insights, intuition
  - Linking with literature

Describing and comparing

- Thick description
  - What is it about? How is it described? Who were present? Where?
  - Are there any variations regarding the topic? What is different?
  - Context: what is the context? When, where, how?
  - Nuance: is the experience different in different contexts?

- Comparison
  - Identifying patrons and associations
  - Subgroups

Comparison - example

From Hennink & Hutter, 2011

Study in Asian community in the UK

Conclusion: young Muslim women were embarrassed to consult with male doctors for family planning services, particularly if the doctor was from the same cultural and religious background as they were

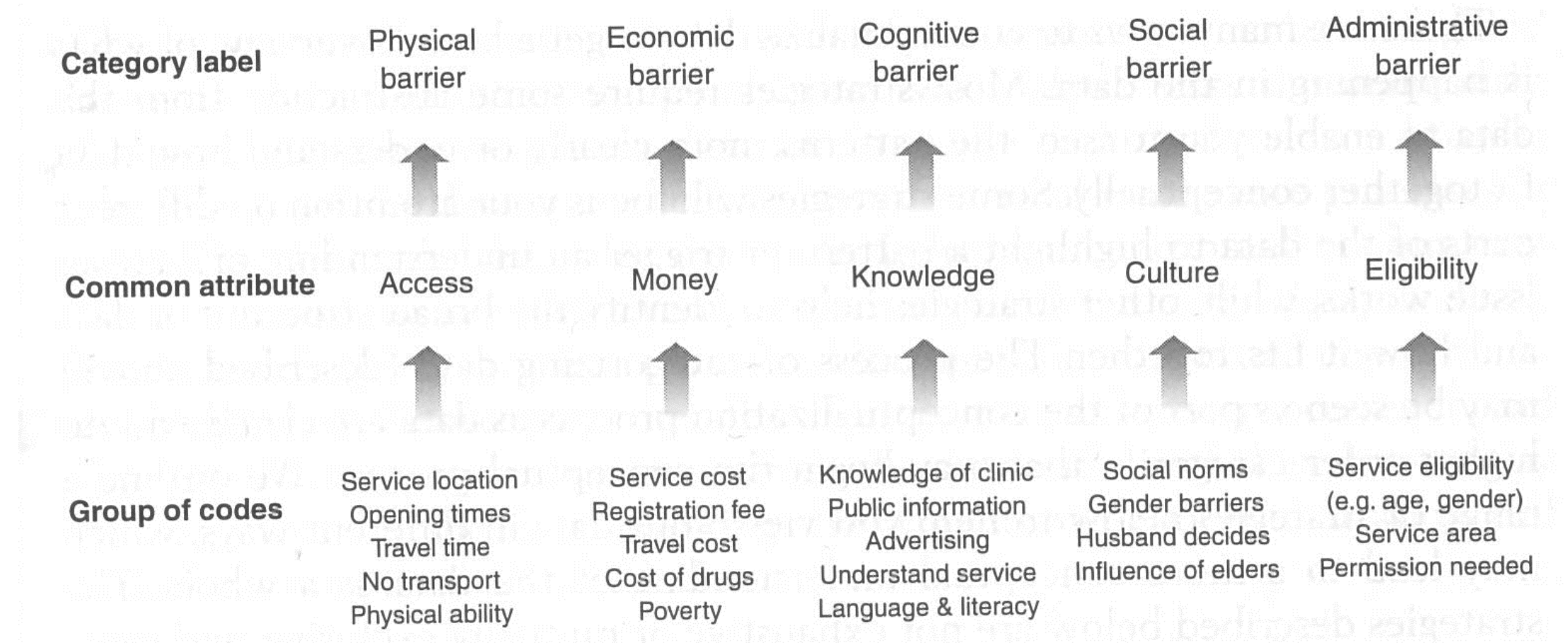
4 round of comparison:

1. Gender: embarrassment was only mentioned by women
2. Age: younger women were most concerned about embarrassment
3. Religion: Muslim women voiced greatest concerns about embarrassment
4. Nuances: male physicians from same cultural and religious background

Categorizing

- Selective coding
- Grouping codes with similar attributes into broad categories
  - Depending of research question
  - Depending of themes in literature
  - **Code** → **Category** → **Theme**
- Higer-order grouping of from which you begin to build the conceptual framework

Categorizing - example



Referenties: Hennink et al, 2011

Categorizing – how? - example

- All codes will be sent to those involved (including definition)
- Create card with the codes
- Table on which the code card are placed randomly
- ‘shuffle’ the codes
- Discuss codes that are unclear

Conceptualising

- Analysis on more abstract level
- Data as a whole -> understanding what is happening in the data
  - Conceptual framework

- Big picture: central story
- Exploring relationships between categories/themes

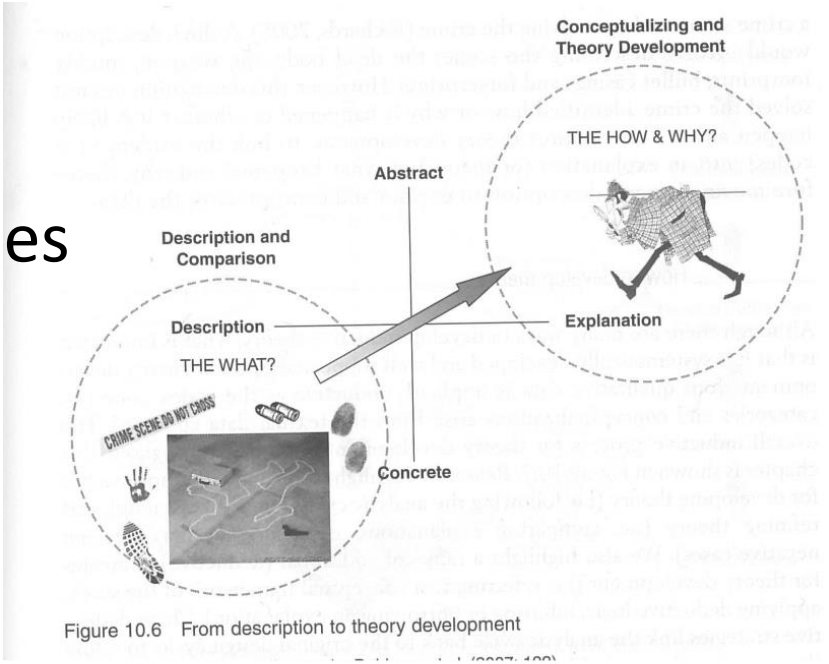


Figure 10.6 From description to theory development

Conceptualizing – strategies (1)

- Analytic search: relationship between x and en y
  - Segments with x and y
- Describing central story, summary, process, pathway
- Peer feedback

Peer feedback - example

From Green & Thorogood, 2014, blz 247:

“In the mornings I wake up at about eight and my dad takes me a couple of meters down the road, it’s only about 200m down the road. And then from then I go and get the bus to school. And then there’s only a few meters from where I get off the bus to go to school.”

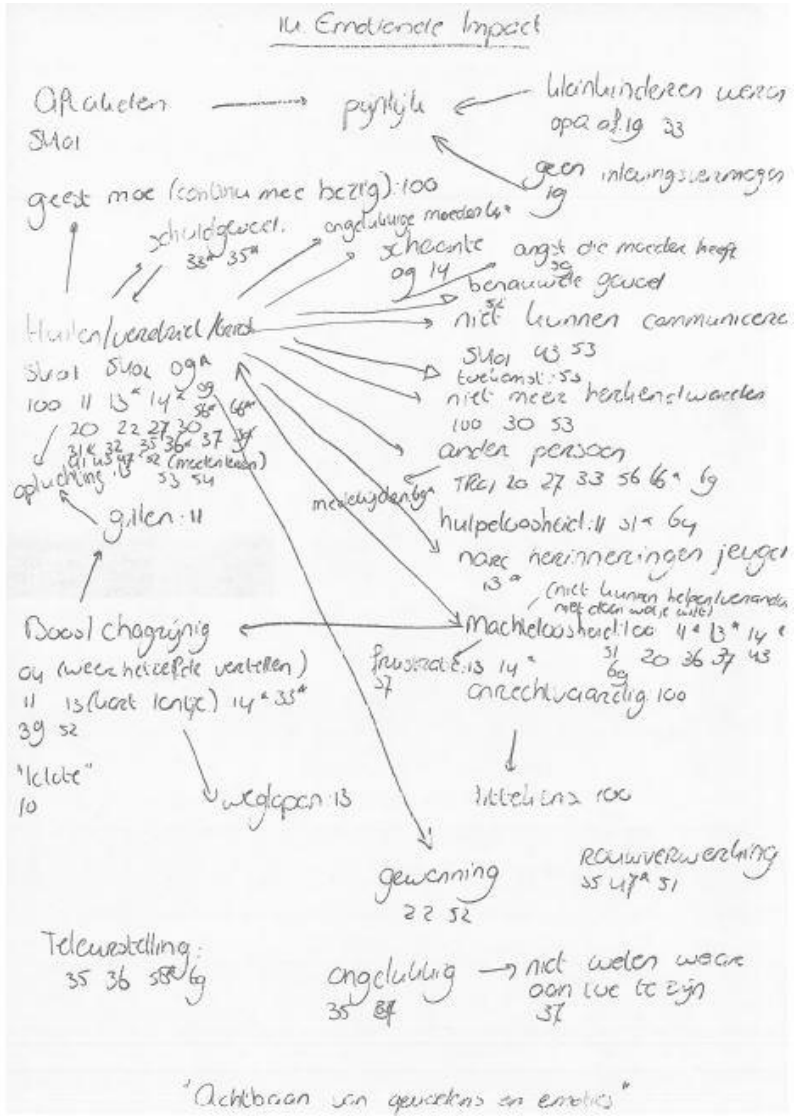
- Research: focus on reduced physical activity

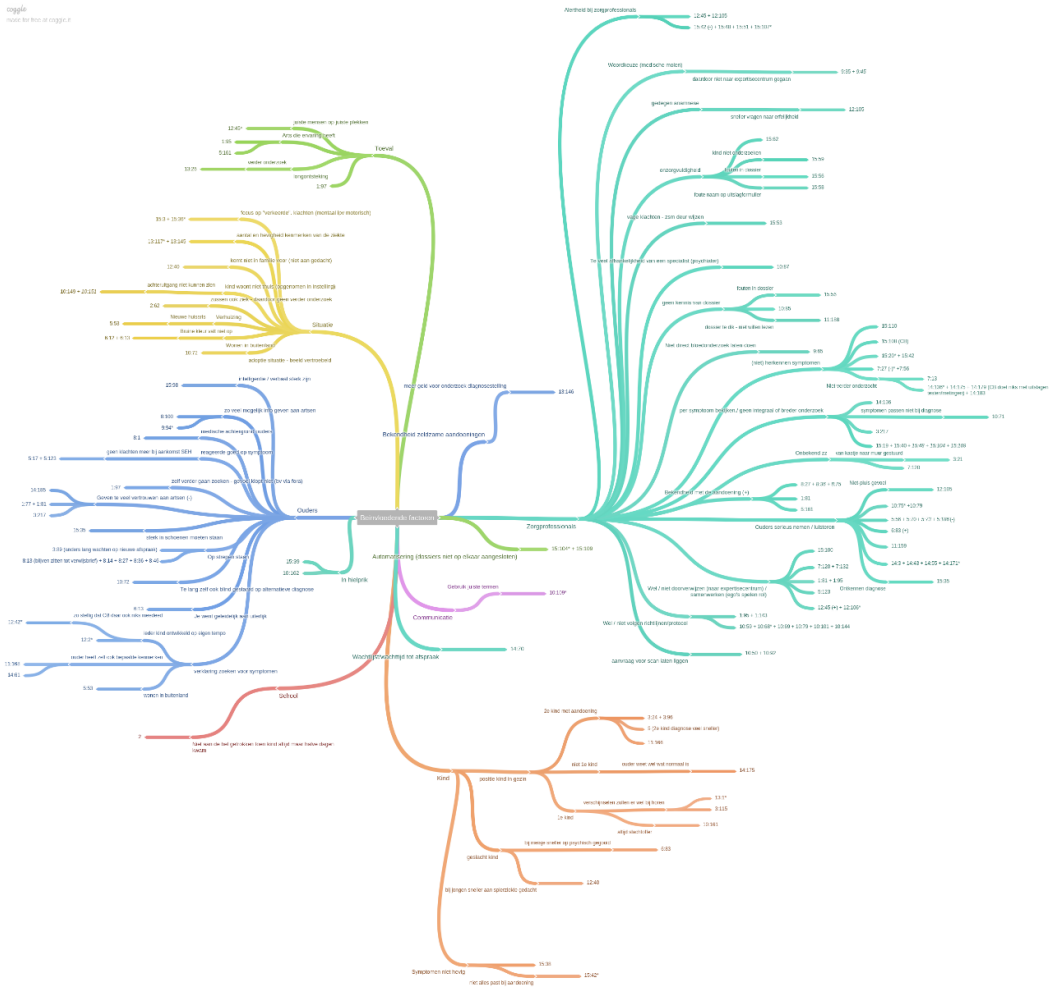
- Peer feedback:
- Time being together with father
- Opportunity to discuss something with child

Conceptualizing - strategies

- Writing and presenting
- Matrix / framework
- Visualizing
- OSOP: one sheet of a paper

OSOP - example





SUNI-SEA
creating synergies

Coggle.it

Conceptualizing - strategies

- Typology: categorizing data on a continuum (eg different type of behaviors, attitudes)

- Comparing interpretation with other data, literature, assumptions

- Questions to think about:
  - What information was not expected?
  - What information is interesting or unusual?
  - What are the main interpretations and what are alternatieve concepts?

Using software in qualitative data analysis

Software – Word / Excel

- Word / Excel
- Table

Group code	Code	Quotation
Group 1	Code 1.1	Bla bla bla bla bla bla bla (Int 1)
		Bla bla bla bla bla bla bla (Int 2)
		Bla bla bla bla bla bla bla (Int 3)
	Code 1.2	Bla bla bla bla bla bla bla (Int 6)
		Bla bla bla bla bla bla bla (Int 4)
Group 2	Code 2.1	Bla bla bla bla bla bla bla (Int 9)
	Code 2.2	Bla bla bla bla bla bla bla (Int 1)

Software - CAQDAS

- CAQDAS: computer assisted qualitative data analysis software

- Electronic filing cabinet

atlas.ti

NVIVO

MAXQDA
The Art of Data Analysis

Software - CAQDAS

- Advantages
  - Efficient way of storing and retrieving all data for a give code
  - Once you have your coding structure set up, coding is quick
  - More transparency
  - Search data
- Disadvantages
  - Temptation to collect lots of data – losing depth and richness
  - Takes time to get to know the program
  - Licenses are expensive

Quality criteria

Quality criteria

- Quality criteria – Guba and Lincoln

Terminology positivism	Terminology constructivism
Internal validity	Credibility
External validity	Transferability
Reliability	Dependability
Objectivity	Confirmability

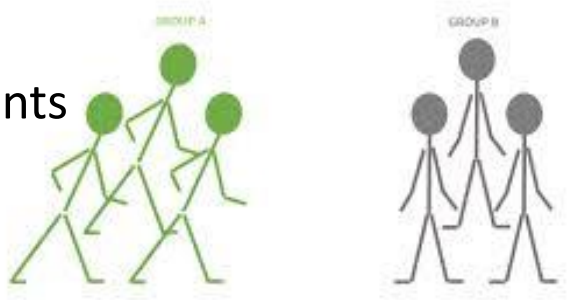
Credibilty

- Internal validity – credibility: How do I know that the results are not the interpretation of the researcher?
  - To establish confidence that the results (from the perspective of the participants) are true, credible and believable.

- Techniques:
  - Member checking
  - Every interpretation should be proved with data

Transferability

- External validity – transferability: to what extent are finding applicable to broader population
- To extend the degree to which the results can be generalized or transferred
- Concept generalization
- Techniques:
    - Detailed description of setting and participants



Reliability / dependability

- Same study -> same themes
  - Actual repetition not possible, because the situation under investigation changes
  - Virtual repeatability

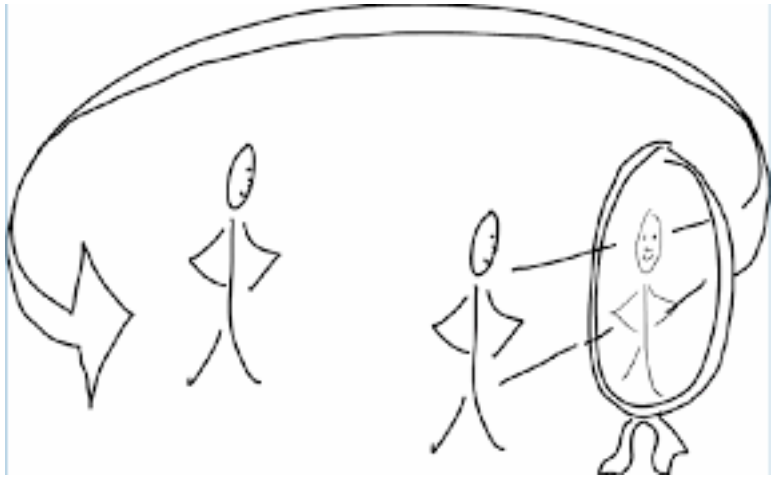
- Techniques:
  - Being transparent
    - Extensive reporting of research – audit trail / log book

Confirmability

- Objectivity
- To extend the confidence that the results would be confirmed by other researchers
- Agreement between members of research team
- Techniques:
  - Number of transcripts coded separately by colleague => blind spots, bias
  - Inter coder reliability
  - Peer debriefing

Reflexivity

- Important in in all research phases
- Your reflections, thoughts, questions, issues etc
- Memos or annotation tools
- Part of the audit trail



Writing and presenting

Choosing a journal

- Aim of the journal
- Published other qualitative papers?
- Word count
  - Mostly more word in qualitative paper (due to quotes)
  - Alternative: present quotes in table or appendix

Reporting findings

- Words instead of number (many, most, few, some)
- Illustrate findings with quotes:
  - Validation of finding
  - Have to support the story
  - Show relevant personal characteristics (age, gender)
  - Verbatim quotes
    - Original grammar and vocabulary
    - Balance between readability and truthful
  - Confidentiality of respondents

COREQ guidelines

- Consolidated criteria for reporting qualitative research
- 32 criteria, 3 domains
  1. Research team and reflexivity:
     - Personal characteristics
     - Relationship with participants
  2. Study design
     - Theoretical framework
     - Participant selection (purposive or convenience sampling)
     - Setting
     - Data collection
  3. Analysis and findings
     - Data analysis
     - Reporting

Closure

Contact

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