

Qualitative research - Data collection	Set-up & Conduct- Methods & Data Collection	
	VERSION	4.0

Aim

To describe the different methods that are used in qualitative research and provide relevant literature for more information on these types of methods.

Documentation

- Field notes
- Topic lists
- Coding information for transcripts

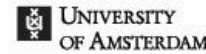
Qualitative research methods

Different methods of data-collection are used in qualitative research. The most common are interviews, focus group discussions, observational methods and document analysis. A relatively new method is an art-based data-collection method. Combining two or more data collection methods, for instance interviews as well as focus groups ('data triangulation') enhances the credibility of the study. Irrespective of the data collection method applied, it is important to keep a diary during the study, with reflections on the process (e.g. regarding method and participant selection) and the role and influence of the researcher ('reflexivity').

Read more:

- Choo, E.K. et al. (2015) Qualitative research in emergency care part I: Research Principles and common Applications. *Academic Emergency Medicine*, 22: 1096-1102
Part I of a two-article series, provides an introduction to general principles of applied qualitative health research and examples of its common use in emergency care research, describing study designs and data collection methods most relevant to our field, including observation, individual interviews, and focus groups. Table 2 in this article provides an overview of different qualitative data collection methods with their advantages and challenges.
- Ranney, M.L. et al. (2015) Interview-based Qualitative Research in Emergency Care Part II: Data collection, Analysis and Results Reporting. *Academic Emergency Medicine*, 22: 1103-1112.
Outlines the specific steps necessary to conduct a valid and reliable qualitative research project, with a focus on interview-based studies. These elements include

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building the research team, preparing data collection guides, defining and obtaining an adequate sample, collecting and organizing qualitative data, and coding and analyzing the data. With a discussion on potential ethical considerations unique to qualitative research as it relates to emergency care research.

Example using methodological triangulation:

- Sewdas, R. et al. (2017) Why older workers work beyond the retirement age: a qualitative study. *BMC Public Health*, 17: 672.
This study is based on a combination of semi-structured telephone interviews and focus groups.

Interviews

Interviews are useful to explore experiences, views, opinions, or beliefs on specific matters. Transcripts of interviews can be explored and compared to others, to develop an understanding of the underlying structures of beliefs (See chapter 4 in Green & Thorogood, 2010). There are different grades of structuring the interview: structured, semi-structured or open/in-depth. Often the researcher develops a topic list before the start of the interview, which can be used in a flexible manner. As the interview is a product of interaction between the researcher and the interviewee, the setting and skills of the researcher are of importance (e.g. the ability to build a sense of trust (developing rapport), the way of phrasing questions, give the interviewee room to tell a story, (body language). Furthermore, it is important to think about the type of transcription of audio tapes. Finally, it may be important to make notes after each interview on the type of setting, non-verbal signals (body language) of an interviewee and other important things/events that may have happened during the interview and might play a role on the gathered data.

Read more:

- Britten, N. (1995) Qualitative interviews in medical research. *BMJ*, 311, 251-253.
This paper provides an outline of qualitative interview techniques and their application in medical settings. With a practical guidance for conducting interviews.
- Green, J. & Thorogood N. (2010) *Qualitative Methods for Health Research*. Third Edition. London: Sage Publications.
See chapter 4 on in-depth interviews.
- Gubrium, J.F. & Holstein, J.A. (2001) *Handbook of Interview Research. Context & Method*. London: SAGE Publications.
This handbook offers information on different forms of interviewing, interviewing distinctive respondents (e.g. children or ill people), technical aspects, different analytic strategies, and the topic of reflection and representation.
- Gubrium, J.F. et al. (2012) *The SAGE Handbook of Interview Research. The Complexity of the Craft*. London: SAGE Publications.
This second version of the handbook also offers information on the logistics of interviewing, the self and other in the interview and ethics of the interview.
- Ranney, M.L. et al. (2015) Interview-based Qualitative Research in Emergency Care Part II: Data collection, Analysis and Results Reporting. *Academic Emergency Medicine*, 22: 1103-1112
Gives an outline the specific steps necessary to conduct a valid and reliable qualitative research project, with a focus on interview-based studies. These elements

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include building the research team, preparing data collection guides, defining and obtaining an adequate sample, collecting and organizing qualitative data, and coding and analyzing the data. With a discussion on potential ethical considerations unique to qualitative research as it relates to emergency care research. Table 1 provides an outline of an Interview Guide for Focus Groups or Semi-structured Interviews. Table 2 gives examples of qualitative questions suitable for a topic list.

Dutch reference:

- Evers, J. (red.), (2007) Interviewen: kunst én kunde. Den Haag: Boom Lemma uitgevers.

Examples:

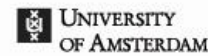
- Bakker, M. et al. (2015) Need and value of case management in multidisciplinary ALS care: A qualitative study on the perspectives of patients, spousal caregivers and professionals. *Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration*, 16(3-4), 180-186.
- Bakker, M. et al. (2016) Experiences and perspectives of patients with post-polio syndrome and therapists with exercise and cognitive behavioural therapy. *BMC neurology*, 16(1), 23-34.
- Ockhuijsen, H.D.L. et al. (2014) Pregnancy After Miscarriage: Balancing between Loss of Control and Searching for Control. *Research in Nursing & Health*, 37, 267-275.

Focus group discussions

A focus group is a meeting where a group of people discuss a certain topic to examine their views/experiences on this particular topic. These discussions are useful to examine underlying reasons, motives, values and beliefs. The researcher stimulates discussion in order to examine how knowledge and ideas develop and operate in a given group. Most of the time, a facilitator guides a discussion about a particular topic in a group of usually 6-12 people. Some sensitive issues might be easier to discuss within a group, although other (personal) information might be withheld, for instance when persons are not acquainted with each other or because of hierarchical relations within the group. Therefore, a group of people need to have a certain homogeneity to be as comfortable as possible for discussing a certain topic within a group.

The role of the facilitator is to create an open atmosphere, involve participants in the discussion and manage this discussion. The organization of a focus group requires careful attention. This includes the sampling and recruitment of participants, the composition of the topic list and how the data will be collected. Each focus group has a unique design (a script instead of a topic list for an interview) that involve various exercises to stimulate discussion and reflection between participants. Exercises can also stimulate creative ideas and getting someone to tell a story.

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Next to the facilitator, it might also be useful to include an observer. The observer could be useful for taking notes on non-verbal signs (body language), take notes of the most important things that have been said, support the facilitator in the discussion, and keep track of the time. In this way, the facilitator can concentrate on guiding the discussion.

Read more:

- Green, J. & Thorogood N. (2010) *Qualitative Methods for Health Research*. Third Edition. London: Sage Publications. See chapter 5 on Group Interviews.
- Gubrium, J.F. & Holstein, J.A. (2001) *Handbook of Interview Research. Context & Method*. London: SAGE Publications. Offers a chapter on focus groups.
- Kitzinger, J. (1994) The methodology of Focus Groups: the importance of interaction between research participants. *Sociology of Health & Illness*, 16, 1, 103-121. This article introduces focus group methodology, explores ways of conducting such groups and examines what this technique of data collection can offer researchers. It concentrates on one feature which inevitably distinguishes focus groups from one-to-one interviews or questionnaires - namely the interaction between research participants - and argues for the overt exploration and exploitation of such interaction in the research process.
- Kitzinger, J. (1995) Introducing focus groups. *BMJ*, 311, 299-302. This paper introduces focus group methodology, gives advice on group composition, running the groups, and analysing the results.

Dutch reference

- Assema et al (1992) Focusgroep-interview: een stappenplan, *TSG* 1992;70, nr 7

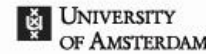
Examples:

- Middelweerd, A. et al. (2015) What features do Dutch university students prefer in a smartphone application for promotion of physical activity? A qualitative approach. *International Journal of Behavioral Nutrition and Physical Activity*, 12: 31.
- Pitts MJ, Adams Tufts K. (2013) 'Implications of the Virginia human papillomavirus vaccine mandate for parental vaccine acceptance.' *Qualitative Health Research*. 2013.
- Tausch AP, Menold N. Methodological Aspects of Focus Groups in Health Research: Results of Qualitative Interviews With Focus Group Moderators *Global Qualitative Nursing Research*. 2016;3:1-12. DOI: 10.1177/2333393616630466 <https://doi-org.vunl.idm.oclc.org/10.1177/2333393616630466>

Observational methods

Observational methods are used to understand phenomena by studying people's accounts and actions in an everyday context. There are different types of observations, with various degrees of research participation, like non-participating observation (e.g. by using video recordings), and participant

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observation or ethnography. Ethnography ‘usually involves the researcher participating, overtly or covertly, in people’s daily lives for an extended period of time, watching what happens, listening to what is said, and/or asking questions through informal and formal interviews, collecting documents and artefacts’ (Hammersley & Atkinson, 2007: 3).

Observations are focused on gaining an in-depth understanding of a specific context. Observations can, just as interviews, be conducted at the continuum of open-ended and focused observations (Mortelmans, 2020). An “observation matrix” or “observation guide” is used to guide the observations. Observations are often conducted by one researcher who can build up relations with people in the field they are researching. Triangulation of researchers can contribute to the quality of the study, as it enables researchers to critically reflect upon their perspectives and how they make meaning of “the observed”.

Read more:

- Atkinson, P. et al. (2001) Handbook of Ethnography. London: Sage Publications
Offers chapters on various aspects of (conducting) ethnography.
- Emerson, R.M., Fretz, R.I. & Shaw, L.L. (2011) Writing ethnographic fieldnotes (2nd edition). Chicago: The University of Chicago Press.
- Green, J. & Thorogood N. (2010) Qualitative Methods for Health Research. Third Edition. London: Sage Publications
See chapter 6 on Observational Methods.
- Hammersley, M. & Atkinson, P. (2007) Ethnography. Principles in practice. Third edition. London: Routledge.
- Reeves, S. & Hodges, B.D. (2008) Qualitative research methodologies: ethnography. BMJ, 337: a1020.
This article provides background for those who will encounter this methodology in their reading rather than instructions for carrying out such research.

Dutch reference:

- Mortelmans, D. (2018) Handboek kwalitatieve onderzoeksmethoden. Acco: Leuven/Den Haag. See chapter 6 on observations.

Example:

- Pasman, H.R.W. et al. (2003) Feeding nursing home patients with severe dementia: A qualitative study. Journal of Advanced Nursing, 42, 3, 304-311.
This paper is based on participant observation by two researchers in two Dutch nursing homes.

Document analysis

Document analysis is based on existing sources, like government reports, personal documents, articles in newspapers, medical curricula, books or medical records. Document analysis is often employed to conduct a discourse analysis or to conduct a policy analysis. Document analysis can also be done to support or inform other methods of data collection such as interviews or observations (i.e. data-triangulation).

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Read more:

- Green, J. & Thorogood, N. (2010) *Qualitative Methods for Health Research*. Third Edition. London: Sage Publications. See chapter 7 on Physical and virtual documentary sources.
- Prior, L. (2003) *Using Documents in social research*. London: Sage Publications. With a focus on the analysis of documents. Offers examples from the sociology of health and illness.

Examples:

- Stuij, M. & Stokvis, R. (2015) Sport, health and the genesis of a physical activity policy in the Netherlands. *International Journal of Sport Policy and Politics*. 7 (2): 217-232.
This paper is based on an analysis of policy documents and existing surveys on sport participation.
- Muntinga, M. E., Krajenbrink, V. Q. E., Peerdeman, S. M., Croiset, G., & Verdonk, P. (2016). Toward diversity-responsive medical education: taking an intersectionality-based approach to a curriculum evaluation. *Advances in Health Sciences Education*, 21(3), 541-559.
This paper is based on an analysis of medical curricula from an intersectional perspective.

Arts-based methods of data-collection

Arts-based methods of data-collection receive growing attention from qualitative health scholars (Mitchell et al, 2017). Arts-based methods allow participants in qualitative research to express their lived experiences in non-verbal ways, which can support an understanding of their lived experiences in other ways than interviews, focus groups or observations can do. One example of arts-based research is photovoice (Wang, 1997), which is increasingly often used in different groups such as children (Abma & Schrijver, 2020). Photovoice can be used alone, or in combination with interviews or focus groups (Sarti et al, 2019).

Read more:

- Mitchell, C., De Lange, N., & Moletsane, R. (2017). *Participatory visual methodologies: Social change, community and policy*. Sage.
- Wang, C., & Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health education & behavior*, 24(3), 369-387.
- Boydell, K. M., Gladstone, B. M., Volpe, T., Allemang, B., & Stasiulis, E. (2012). The production and dissemination of knowledge: A scoping review of arts-based health research. *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*, 13(1), Art. 32.

Examples:

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- Abma, T. A., & Schrijver, J. (2020). ‘Are we famous or something?’ Participatory Health Research with children using photovoice. *Educational Action Research, 28*(3), 405-426.
- Sarti, A., Dedding, C., & Bunders, J. F. (2019). Beyond a deficiencies approach: Towards a more integral representation of the everyday life of children growing up in contexts of poverty. *Qualitative Social Work, 18*(5), 818-833.
- Vaart, G. V. D., Hoven, B. V., & Huigen, P. P. (2018). Creative and arts-based research methods in academic research: Lessons from a participatory research project in the Netherlands. *Forum: Qualitative Social Research, 19*(2), 30.

Quality procedures

Devers (1999) formulated several strategies for enhancing the rigor of qualitative research:

Criteria	Strategies
Credibility / Internal validity	<ul style="list-style-type: none"> • Triangulation. The purpose of triangulation is to make use of multiple data sources, investigators, methods or theory to the extent possible to provide corroborating evidence. • Search for Disconfirming Evidence (“deviant” or “negative” cases). Instead of ignoring cases or information that “doesn’t fit”, the researcher actively looks for cases that do not fit the pattern and refines the theory and working hypotheses in light of this evidence. The researcher(s) continues this process until all cases fit, eliminating all outliers and exceptions. • Subject Review (Also called “member checking” and “dialogue with participants”). The researcher(s) solicits research “subject”, group member, or participant views of the credibility of interpretation and findings. In some cases, this strategy is also used to increase the probability that research results will be used.
Transferability / External validity	<ul style="list-style-type: none"> • Detailed Description of the Context, i.e. the study context, the investigator’s role in the context and of how the context affects the ability to answer the original research question.
Dependability / Reliability	<ul style="list-style-type: none"> • Data Archiving/Creating an Audit Trail. The researcher(s) should ensure the completeness and accuracy of documents (e.g. interviews, observations, etc.) and be clear about the coding schemes and data analysis process. Theoretically, this would allow someone not connected with the study to review the primary documents and coding schemes to assess whether the findings, interpretations, and conclusions are supported. • Skeptical Peer Review. A skeptical peer-reviewer plays the role of devil’s advocate, asking difficult questions about methods, meanings, and interpretation of the data. This process provides an external check on the research.
Confirmability / Objectivity	<ul style="list-style-type: none"> • Triangulation. See description above. • Skeptical Peer Review or Audits. See above. • Search for Disconfirming Evidence or Negative Cases. See above. • Reflective Journal Keeping by the Researcher. Because the researcher is the research instrument in qualitative research, he

or she should keep journal notes on how his or her personal characteristics, feelings, and biases that may be influencing the work and how he or she tries to manage them to the extent possible.

Read more:

- Devers, K.J. (1999) How Will We Know “Good” Qualitative Research When We See It? Beginning the Dialogue in Health Services Research. *Health Services Research*, 34 (5): 1153-1188.
The purpose of this article is to lay the foundation for an explicit review of, and dialogue about, the criteria that should be used to evaluate qualitative health services research.
- Frambach, J.M. et al. (2013) AM Last Page: Quality Criteria in Qualitative and Quantitative Research. *Academic Medicine*. 88; 4: 552.
This page provides an overview of quality criteria in qualitative research and a number of techniques that researchers can use to meet these.
- Mays, N. & Pope, C. (2000) Assessing quality in qualitative research. *BMJ*, 320: 50-52.
This article outlines two views of how qualitative methods might be judged and argues that qualitative research can be assessed according to two broad criteria: validity and relevance.

Documenting your Quality control procedures

To ensure proper data collection including quality control and change control procedures are applied, see Checklist Quality control procedures and have your DMP checked by a (research) data management consultant.

Responsibilities and ethics

It is important to carefully reflect on and think about ethical dilemmas related to the practice of qualitative research as well as responsibilities of the researchers, especially regarding respondents. Procedures related to informed consent, protecting the privacy of respondents often require additional reflection from researchers, for example when qualitative research is conducted in a specific setting (ethnographic research or case studies) and standard procedures such as pseudonymizing or encoding the data are not sufficient to ensure privacy. Also, the nature of qualitative research requires personal contact between researcher and researched, for example during interviews or observations. This can also yield dilemmas that cannot be anticipated upon with standard ethics procedures, but require moral reflection during the research process. Please consult the guideline on privacy. For specifics in a study, or contact the privacy officer /data protection officer and read into ‘procedural’ ‘situational’ and ‘relational ethics’ in qualitative research (e.g. Wijngaarden et al, 2018; Mortelmans, 2018).

Read more:

- Green, J. & Thorogood, N. (2010) *Qualitative Methods for Health Research*. Third Edition. London: Sage Publications.
Chapter 3 provides information on responsibilities, ethics and values.

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- van Wijngaarden, E., Leget, C., & Goossensen, A. (2018). Ethical uneasiness and the need for open-ended reflexivity: the case of research into older people with a wish to die. *International Journal of Social Research Methodology*, 21(3), 317-331.

Dutch reference

- Mortelmans, D. (2018) Handboek kwalitatieve onderzoeksmethoden. ACCO Leuven/Den Haag. Chapter 6 provides information on procedural, situational and relational ethics in qualitative research.

LINKS

Link

DOCUMENT HISTORY

Version	Status	Date	Name
4.0	Revision	16DEC2020	Rosanne Schaap and Dr. Saskia Duijs Elize Vlainic
3.0	Revision guideline	20OCT2017	EMGO
2.0	Revision format	12MAY2015	EMGO
1.2	Removal of link kwalitatief sterk	01DEC2011	EMGO
1.1	English translation	01JAN2010	EMGO
1.0	Draft version has been rewritten in full	23NOV2006	EMGO

DOCUMENT APPROVAL

Role	Name	Date
Project Leader	Dr. Seta Jahfari	12MAY2021