



Evaluation using qualitative methods

Evaluation shared practice guide

Evaluation using qualitative methods

This year, the evaluations at EngineeringUK will include additional qualitative data collection to help provide a richer understanding of how our programmes are working for schools and young people.

In this brief guide, we will describe some of the benefits and challenges of using qualitative approaches in evaluation, as well as some things to consider when planning to use qualitative methods.

What do we mean by ‘qualitative methods?’

Qualitative methods are those that use participants’ own words, and sometimes images or actions, as data. This approach can be more open to participants’ interpretations and allow a deeper understanding of what matters to them. While quantitative methods typically pre-define the area of interest, qualitative methods can be more led by the participants’ own experiences.

The benefits and limitations of qualitative approaches to evaluation

Qualitative and quantitative approaches each have their strengths and weaknesses. Here we describe a few key strengths of qualitative approaches for evaluation.

Qualitative methods are particularly well-suited when the project or programme you are evaluating is new or includes a lot of local variation, or where there are small numbers involved. For example, qualitative data can offer richer descriptions of how a programme is implemented differently in different contexts.

Qualitative methods are also good for understanding complex issues, including how people feel about something. In quantitative data collection, emotional responses are often reduced to simple characteristics such as satisfaction scales. These can miss the depth of response to an issue which qualitative methods can help to uncover.

Finally, qualitative methods are good for gathering suggestions for improvement and generating new ideas. A qualitative approach does not require you to define the responses beforehand, which allows you to be much more open to participants’ own thoughts and innovations. If a participant says something new or surprising, in qualitative methods you can follow this up with further questions to find out more. In quantitative approaches, when a finding is unexpected we are often left guessing about the reasons for it.

The table below summarises some of the ways in which qualitative and quantitative methods may offer advantages or pose challenges. This is a simplification, however. A lot will depend on the context and the specific methods used.

Qualitative approaches	Quantitative approaches
Pros	Pros
Allows greater depth of understanding	Tends to be faster and less expensive
Does not require response options to be pre-determined	Allows data capture from larger numbers of participants
Allows participants greater freedom to share what matters to them	Can be done anonymously, making data protection issues easier to manage
Can make reporting findings more interesting and accessible through using quotes and descriptions.	More likely to be generalizable where the sample size and response rate are large enough
Qualitative approaches can be more flexible, allowing the focus of questions to change in the light of new information.	Limits the potential for bias that can arise by the analysis of qualitative data
Cons	Cons
Sample sizes tend to be small which limits the ability to generalize from findings	May miss unanticipated issues, limiting the interpretation of the findings
Sample selection and the role of the research in collecting and analysing data can introduce bias	Tends to be 'reductionist' - simplifying responses in a way that may not reflect what participants really felt or thought
Tends to be more time consuming at both data collection and analysis stages, with implications for how quickly findings can be generated and how much they cost.	Reporting of statistical findings can be dry and is not always easy to communicate in a way that audiences find engaging and persuasive.
Data cannot normally be collected anonymously, making data protection and consent a more complicated process	

Common qualitative methods for evaluation

There are many different qualitative methods that can be used. A wealth of information is available on how to use these different methods. In this guide, we will provide a very brief description about when each approach might be most useful.

Interviews

Interviews allow you to ask a series of questions to participants in a one-on-one setting. Interviews can be tightly structured to allow the interviewer greater control over the topics discussed, or very loose to encourage participants to reflect on issues of greatest importance to them. The choice of approach will depend on your research question.

Benefits and limitations of interviews: Interviews allow you greater time and opportunity to explore the participants' experience in some depth. Where your participant is knowledgeable about the topic, this may allow you to get a deeper insight into the context and mechanisms that your programme works with, and the perceptions, experiences and emotional responses of the people involved. Using less structured interviews also allows individuals to lead you to findings that you didn't know were relevant or important until the participant explains them.

Interviews can be time consuming to conduct and to analyse. Typically, sample sizes are therefore very small. Selection of participants is important. If one person interviewed had an unusual perspective or experience, this might give it more weight than is fair in your evaluation. For this reason, we do not normally generalize from interview data. Instead, we often look for diversity - identifying where there are similarities and differences in the accounts that are collected.

Interviews can also be an expensive way to collect data. Face-to-face interviews incur travel costs and can take quite a bit of time. Increasingly, interviews are being conducted over video call, and telephone interviews remain a viable option, though this can pose challenges in building a rapport with some participants. Detailed analysis may also require interviews to be transcribed which is an additional cost.

Focus groups

In focus groups a small group of people with relevant insight are invited to discuss an issue together with a facilitator. The facilitator will guide the topics under discussion, but good focus groups then encourage participants to respond to each other.

Benefits and limitations of focus groups: The interaction between participants can provide richer data. One person's response encourages others to reflect. They may share that view or experience, or they may draw a contrast between what others say and their own thoughts. However, this interaction can also limit how comfortable participants feel talking about controversial or highly personal issues. Consideration should be given to the nature of the questions and the composition of the group (including whether participants may already know each other).

In practical terms, focus groups can be a cost-effective way to gather qualitative data from more participants, as a single focus group may include 6-8 individuals. However, if your participants are widely spread geographically, this can limit your ability to get a spread of participants, though online focus groups are increasingly common.

Observations

Observations allow the collection of data in a natural setting, for example, by observing the delivery of a programme activity first-hand. The researcher might act as a participant in the activity while observing or might sit outside the activity watching. Generally, the data generated is in the form of researchers' notes, rather than recordings.

Benefits and limitations of observation: Observation allows you to see what participants actually do in these settings, rather than what they say they do. Doing this in the natural setting means that the researcher can understand the significance of the physical space or spot 'side activities' which might affect the experience or effectiveness of the activity but which participants themselves might not notice or mention.

The strength of observational data is often dependent on the skills and experience of the researcher. They may need a lot of prior knowledge about the setting or activity in order to guide the observations. A researcher cannot see everything in a given setting, so will usually go with some expectations about what they will be looking for or at. It is easy for researchers to bring their own bias into their observations, or to misconstrue what they've seen. Often, researchers will 'sense-check' their findings through interviews or focus groups as well.

Documentary analysis

In some contexts or activities, documents are already being produced which may be available to the researcher for analysis. They might be created through participation in the activity, or they might be documents produced to promote, support or guide the activity. Changes in documentation might also be an outcome for the programme being evaluated. For example, if a programme involves teacher CPD then lesson plans, careers materials or other teaching resources created by participating teachers might be valuable data to assess impact.

Benefits and limitations of documentary analysis: This approach allows researcher to access ‘natural’ data - that is, data that was produced as part of an activity separate from the research or evaluation itself. This can help to reduce some kinds of bias, for example where participants tell researchers what they think they want to hear. It may also allow access to ‘historical’ data - documents created before the programme started, to allow comparison.

However, when using documents as data, it is important to take into account their original audience and purpose as these will also affect their content. As with observation, it may be better if the researcher has a good understanding of the context in which these are created to allow better analysis. Combining with interviews to check interpretation can be helpful.

Accessing documentary data can be very cost-effective. If the documents of interest are publicly available this can be very easy to access. Good analysis of the data is often time-consuming, however.

Combining qualitative and quantitative methods

Qualitative and quantitative methods may be used side-by-side to combine the benefits of each approach. These ‘mixed methods’ studies can combine approaches in different ways.

First, qualitative and quantitative questions can be combined in one method of data collection, for example using open text questions in surveys. These tend to be limited as most participants have low patience for typing long responses, and large amounts of qualitative response data can be time-consuming to analyse.¹ The use of qualitative questions in surveys is therefore typically kept to a small number of narrow areas where it is not useful or possible to pre-define the response options.

Qualitative and quantitative approaches can be used side-by-side in evaluation. These studies often gather quantitative data from across a whole programme and qualitative data from a smaller number of participants. This helps to develop an understanding of the programme’s operation and impact in more depth, while also looking at how far the programme is delivering on its pre-defined variables.

Thirdly, qualitative and quantitative methods can be used consecutively. Qualitative methods may be used to generate hypotheses or typologies which inform the questions subsequently asked in quantitative data collection. Alternatively, qualitative methods may be used after quantitative methods to explore emerging findings in more depth or help to explain unexpected results.

¹ Methods for processing and quantifying qualitative data, such as sentiment analysis, are not discussed here but can be an effective method of handling large quantities of text data.

Some general points to consider

Sample sizes

As highlighted above, sample sizes for qualitative research are typically much smaller than those required in quantitative research. There is also no fixed way to determine in advance how much data you will need to reach useful qualitative findings. It will depend on the specific questions for the evaluation and the diversity of the population of interest.

A common approach is to gather qualitative data until the researcher believes they have reached 'saturation', which is the point at which no new themes or issues of interest are arising from additional data collection. Though this is not a precise indication, it is a useful guide as to when data collection can be reasonably ended.

Analysis

There are many different ways to conduct analysis of qualitative data, depending on the type of data and the research questions. We won't try to cover approaches to analysis in this briefing, but many useful resources exist to guide researchers in using these methodologies.

Perhaps the most commonly used approach is a thematic analysis, in which the researcher identifies issues and themes that arise in the data. These are labelled or 'coded', with the same code being applied to the same theme wherever it appears across the data set. Data on each theme can then be looked at across all the data to produce interpretations or summaries that help to answer the research question posed.

Presenting qualitative research

Qualitative research can be presented in various ways, depending on the approach taken. This might include:

- **descriptions** of the key themes and what they mean
- **typologies** of activities or participants who differ in their experience or perspectives
- **narratives**, including descriptions of processes or chronological accounts of experiences
- **case studies**, in which data is brought together to provide an in-depth understanding of one specific setting or individual
- in mixed methods studies, **quotes** or descriptions may be used to contextualise or explain quantitative findings and add colour to reporting.

Ethics and data protection

Unless the research involves the analysis of existing, publicly available documents, collecting qualitative data usually requires the collection of some personal identifiers of participants. Even if name and contact details are not needed to collect the data, the nature of qualitative data makes it hard to guarantee that identifying information won't be shared.

Informed consent should be gathered from all participants in qualitative research. This should be clear about what is involved in the data collection, the scope and focus of the questions, and what will happen with the data afterwards, including how it will be anonymised and reported.

Further reading

There is a wealth of literature on qualitative methods and methodologies. We have selected a few resources for further reading below:

Overview of qualitative methods

SAGE Research Methods - [SAGE Research Methods Intro to Qual Methods Lesson Plan.pdf \(sagepub.com\)](#)

Sero, R. Using Qualitative Methods in your Evaluation - [Using Qualitative Methods in your Evaluation - Rebecca Sero - YouTube](#)

Qualitative interviewing

Olsen, K. Essentials of Qualitative Interviewing - [Essentials of Qualitative Interviewing \(routledge.com\)](#)

Harvard University. Strategies for Qualitative Interviews - [Some Strategies for Developing Interview Guides \(harvard.edu\)](#)

Focus groups

Emerald Group Publishing. How to Conduct a Focus Group - [Conduct a focus group | Emerald Publishing \(emeraldgrouppublishing.com\)](#)

Centers for Disease Control and Prevention. Data Collection Methods for Program Evaluation: Focus Groups - [Evaluation Briefs No 13 \(cdc.gov\)](#)

Observations

Guest, G., Namey, E., Mitchell, M. Collecting Qualitative Data: A Field Manual for Applied Research

Participant Observation - [48454_ch_3.pdf \(sagepub.com\)](#)

Ethical issues in qualitative research

Hennink, M., Bailey, A., Hutter, I., Ethical Issues in Qualitative Research - [Levitt Sample.qxd \(sagepub.com\)](#)

British Educational Research Association (BERA). - [Ethical Guidelines for Educational Research, fourth edition \(2018\) | BERA](#)