

# QUALITATIVE ANALYSIS



Qualitative monitoring and evaluation methods involve collecting and analysing data in the form of words rather than numbers. They rely on rules and processes which are very different from those of quantitative methods. Qualitative analysis is about managing, sorting and interpreting qualitative data. It can be carried out at any stage of a programme or project cycle from design and planning through to impact assessment.

Qualitative monitoring and evaluation (M&E) methods involve collecting and analysing data in the form of words rather than numbers. They rely on rules and processes which are very different from those of quantitative methods. Qualitative analysis is about managing, sorting and interpreting qualitative data. Within the CSO community, this is done for several different purposes (see Bricki and Green 2007; CDC 2009; Wright-Revollo n.d.).

- Qualitative analysis methods can provide insight into the changes influenced by CSOs. They are generally considered better than quantitative methods for generating sensitive findings, or uncovering unexpected changes.
- Qualitative analysis methods can shed light on the processes that led to changes. They are considered better than quantitative methods when the need is to find out why something happened, or how it happened.
- Unlike quantitative methods, qualitative analysis methods can capture change, or lessons learned, from different points of view.
- Qualitative analysis methods allow project, programme and organisational staff to use their experience, knowledge and expertise to help shape findings, and create deeper understanding of change processes.
- Qualitative analysis methods often result in the generation of case studies or stories of change that can communicate in-depth information on changes in peoples' lives. This can bring information to life in a way that is not possible through purely quantitative analysis. Qualitative methods are therefore very useful for generating marketing and fundraising materials.
- Qualitative analysis methods can be used when very little is known about a situation, and can be used without clear, predicted indicators of change. By contrast, quantitative methods usually require some prior knowledge of what to expect. Many quantitative studies begin with qualitative data collection and analysis to help shape the questions that need to be answered.

The most important benchmark for qualitative methods is that they need to generate findings that are useful. Consequently, the people or organisations expected to act on the findings need to believe that they are based on

credible and reliable data. It is therefore important that qualitative analysis is properly planned and implemented.

Qualitative analysis methods can be used at any stage of an organisational, programme or project cycle. They are frequently used within situational analyses or needs assessments, or when developing plans. They can be used to generate baseline data. They can be used for routine monitoring throughout the lifetime of a project or programme. And they can be used within reviews, evaluations and impact assessments. Qualitative analysis methods can be used on their own, or they can be used alongside quantitative methods.

## Qualitative analysis processes

Qualitative analysis methods have been criticised in the past because approaches to collecting and analysing data have not always been systematic. It is therefore important for CSOs to adopt a systematic approach, not just to ensure that findings are reliable, but also to persuade others that they are the result of a rigorous process. There is no single method for carrying out qualitative analysis. However, there are a number of common elements that are applied in many cases. These are described in the box on the following page.

The types of methods used are also partly dependent on the type of qualitative analysis. There are broadly two types; thematic analysis and narrative analysis (Bricki and Green 2007). Many qualitative analysis studies contain a mixture of both.

In **thematic analysis**, information is sorted and analysed around key themes or groupings of information. Sometimes the themes are decided before the analysis takes place. For instance, themes could be based on programme or project objectives, indicators, learning or evaluation questions, dimensions of change or key lines of enquiry. At other times, themes may emerge out of the analysis.

By contrast, **narrative analysis** focuses on particular cases, and results in the production of quotes, anecdotes, testimonials, case studies or stories of change. Narrative analysis may be used on its own, in which case a purposeful sampling methodology is needed to decide which cases to focus on. Often, however, narrative analysis is used to supplement thematic analysis.

## Common Elements in Qualitative Analysis

**Data collection:** Qualitative analysis is based around data collection tools and methodologies that generate words – quotes, sentences, paragraphs, case studies, stories and reports. The most common collection methods are interviews, focus group discussions and observation. Surveys that include open-ended questions also generate qualitative data. Increasingly, qualitative data is being generated through social media.

**Sampling:** Some projects and programmes are small enough for everyone to be interviewed or observed. In many cases, however, sampling needs to be used. Qualitative sampling is usually based on purposeful (or purposive) sampling. This means cases are chosen because they are most likely to generate useful information, rather than on a random basis.

**Processing data:** Raw data needs to be properly processed before it can be analysed. The first step is often to create a raw data bank containing completed surveys or questionnaires, interview transcripts (translated where necessary), extracts from secondary literature, observation notes, media cuttings, photographs, recordings, films etc. Data is then logged, along with supplementary information such as the names of people interviewed, consent for data to be used in different ways, and the dates on which data was generated.

**Storing:** Information is often stored in both paper and electronic formats. This is because the data may need to be retrieved at a later date in order to pursue further analysis or justify particular findings. This is important if the process is to be transparent and replicable – a key principle for qualitative as well as quantitative analysis.

**Reviewing:** Many analysers like to read and re-read data several times prior to analysing it. This helps them familiarise themselves with the content, and form first impressions.

**Coding and sorting:** Qualitative data analysis often involves sorting information according to different groupings or themes. Some themes may exist before data is analysed (e.g. evaluation questions, indicators, objectives, etc.). Other themes are developed once data has been collected, based on emerging findings. Usually, a coding scheme is developed, which lists all relevant themes (and, if necessary, sub-themes). Data is then sorted according to the coding scheme. Sometimes data is sorted according to other criteria such as geography, the type of data collection exercise, the questions asked, or the dates on which information was collected. Sorting can be done by hand (literally cutting and pasting in some cases) or electronically.

**Initial analysis:** Initial (or first level) analysis is often carried out for each theme or grouping separately. It may involve interpreting the meanings of different statements, establishing patterns, or looking for data that does not appear to fit the patterns. In some cases the initial analysis might be used to develop some rudimentary statistics based on how often certain subjects are mentioned or particular views articulated. Sometimes stories or cases are identified that might lead to further investigation, or can be written up into detailed case studies.

**Developing case studies:** Narrative analysis, whether carried out on its own or alongside thematic analysis, might involve developing detailed case studies or stories of change. Sometimes it is necessary to go back and collect further data on particular cases in order to make them more meaningful or fill in gaps in the evidence. Some evidence may need to be checked or triangulated.

**Interpretation:** Qualitative analysis usually relies heavily on interpretation (sometimes known as second level analysis), and often involves looking across different themes and narratives. Essentially, this step is about working out what it all means. There are many different ways of interpreting data, and different people approach the task in different ways. It is considered good practice to have teams of people interpreting data, at least some of whom have a good knowledge of the context. Interpretation is often based around looking for patterns or trends, e.g. similarities or differences in responses; relationships between themes or groupings; differences in how strongly people feel about issues; typical or unusual responses etc. Interpretation may also feed back into earlier processes – for example using preliminary findings to shape further data collection and analysis.

**Validation and verification:** There are many different ways of validating data. Individual pieces of information can be validated by triangulating information. That means collecting information from different sources or in different ways to make sure information is consistent. Interpretations, conclusions or recommendations arising out of qualitative analysis can be checked by going back to participants (those who were interviewed or took part in discussions) and asking them whether they agree or disagree with the findings. Sometimes it is useful to examine deviant cases – cases that do not seem to fit the general conclusions – and investigate further to see why not.

**Usage:** Ultimately, the purpose of any analysis is to generate information that can be used. Sometimes this means drawing conclusions about what has changed, and the contribution of a project or programme. Sometimes it involves the generation of lessons, conclusions and recommendations for further action. Information might also be used for fundraising, publicity or marketing, as well as for many other purposes. Whatever the purpose, it is always important to present analyses in a form that is most useful to the end-users. This might mean writing a report, developing presentations, filming a video, holding meetings, or any other method considered appropriate for the desired audience.

## Types of qualitative analysis carried out by CSOs

There is a huge body of literature on qualitative analysis. Much of this is based around methods used within the research community. It assumes that people are undertaking large qualitative research studies or evaluations, properly funded, and with adequate time for people to analyse information in different ways, going back and forth between data collection and analysis several times. When carrying out a formal research study or evaluation, all the elements of qualitative analysis described in the box on the previous page should be applied, and in many cases further work is needed to ensure the findings of the study or evaluation are sufficiently robust.

But CSOs also carry out qualitative analysis in many other ways, some of which are described below.

- CSOs often carry out or facilitate reviews, evaluations or situational analyses that need to be conducted quickly and cheaply. These exercises may only consist of a few semi-structured interviews or key informant interviews, backed up by some focus group discussions. In these cases it may not be possible to carry out qualitative analysis to the same high standards as those used within a large, well-resourced research study or evaluation.
- Some CSOs operate M&E systems that rely on qualitative methodologies such as most significant change (MSC) or outcome harvesting. These methodologies use both thematic and narrative analysis, and have their own, unique data analysis processes and guidelines.
- M&E systems run by CSOs usually involve a large amount of self-reported information, including claims of change or contribution to change. Sometimes it is necessary or desirable to investigate the claims in more detail to establish how accurate they are. This kind of investigation can be likened to the work of a journalist or detective, and often involves probing for data to support or reject the claims. Some organisations do this in an ad-hoc or informal way. But there are qualitative methodologies available – such as process tracing or contribution analysis – that allow more formal testing of claims to be carried out.
- Participatory enquiry – whether carried out within situational analyses, baselines, reviews, evaluations or ongoing M&E – is often treated as a special case, and is considered separately from qualitative analysis, even when it explicitly deals with qualitative issues. This is because data analysis follows very different rules, and is based on stakeholders' sensemaking and consensus rather than rigorously applied methodologies. It is very difficult to replicate participatory enquiry, which sets it apart from the kind of qualitative analysis described in this paper. The purpose of participatory enquiry may also be different – encouraging stakeholders to collect and analyse their own situations, rather than generating conclusions from an external perspective.

In all these different cases, to a greater or lesser extent, some of the elements involved in qualitative analysis described in the box on the previous page need to be applied. But often it is simply not possible to apply them to the same standards. Perhaps the most important thing is to be as honest as possible about the process used to carry out the analysis, and to be explicit about any caveats or limitations.

## Qualitative meta-analysis

Within larger CSOs it is very common for information to be collected at different times in different places, and then transmitted up a hierarchy. For example, project managers within a Southern NGO may write brief reports on progress, based on their knowledge of projects or ongoing project monitoring. These reports may then be synthesised into a single summary report. A Northern NGO may take summary reports from many Southern NGOs in order to produce their own country, sector or regional synthesis reports. These may later be amalgamated into an overall report to a donor. And donors often need to synthesise reports across many different Northern NGOs.

At each level some degree of qualitative analysis takes place, although not to the standards applied by a fully-resourced research study or evaluation. Perhaps the biggest challenge is that as information travels up the hierarchy people conducting the analysis begin to lose sight of how information was collected, and who collected it. This effectively means the processes of data collection and data analysis have become divorced. Those analysing the data were not involved in its collection, and may have had no input into decisions about when, why or how data was collected. Ruff and Olsen (2016) call these people '*infomediaries*'.

In these situations the task of analysis is to make sense of data that has been collected and analysed in different ways at different times and in different locations, and to come up with conclusions and recommendations that are useful. Unfortunately, at the moment there is very little support available to help people carry out this kind of work. As far as the authors know there are no guidelines for this kind of qualitative analysis that would be accessible to CSO staff, especially those who are not trained or experienced researchers or evaluators.

The development of some simple guidelines would be a useful start in this area. In the opinion of the authors the rules would need to focus on three key areas.

- **Accepting or rejecting information** based on key criteria. This means assessing all information to see whether it is reliable, and rejecting it if not. Much information would inevitably fall into the grey area between, and its reliability could only really be assessed by considering it alongside other information.
- **Coding and sorting information** according to the same guidelines used for normal qualitative analysis studies.
- **Interpreting information** and using it for different purposes. Different thresholds of evidence may be

required for different purposes. For example, information for accountability or communications purposes could be presented with appropriate caveats. However, information designed to be used for decision-making would need to meet higher thresholds for evidence, and might need to be investigated further to test initial, tentative findings.

## Anecdotal evidence

Within CSOs there are often mixed messages about anecdotal evidence. Qualitative findings not derived through a formal process are often criticised for being anecdotal. At the same time, it is accepted that an important part of project management concerns regular contact with different stakeholders, listening to their views and opinions in an informal way, and taking action accordingly.

In many situations anecdotal evidence is extremely useful for shaping opinion, and helping project or programme managers adapt to changing circumstances. But to quote this information as if it were the result of an expensive, qualitative study is misleading. Again, the important thing is to be very clear about how qualitative analysis was done, and how any conclusions were reached. This enables others to make their own minds up about how important – or otherwise – the information really is.

In reality, almost all qualitative analysis starts off by collecting anecdotes. As Patton (2014) argues, the *“systematic, intentional, and careful recording of purposefully sampled anecdotes (stories) can become evidence when rigorously captured and thoughtfully analysed.”* Most M&E practitioners do (or should) spend a large amount of time talking to people, and finding out their views, opinions and thoughts. The data this generates – if honestly recorded and properly analysed – can produce information that is as useful as any information derived from a formal study.

In most CSOs, if they are doing their job properly, there is a huge amount of implicit, informal and ongoing qualitative data collection and analysis. In many ways the quality and regularity of this informal analysis is what marks out the best CSOs. It is certainly a key factor in adaptive management.

*“A single opinion, story or comment is an anecdote. Three anecdotes analysed together meets the criteria for qualitative analysis based on triangulated data.”*

## Challenges with qualitative analysis

There are many challenges associated with qualitative analysis that are not always present when carrying out quantitative analysis.

- Qualitative data collection methods can result in vast amounts of information, partly because the information is easy to collect. However, analysing this information can become difficult and time-consuming. Too much information can lead to data drowning – a situation in which there is too much data to process in any meaningful way. An associated problem is known as trawling – collecting large amounts of qualitative data with no real idea of how it should be used.
- Sometimes there is so much information that it is possible to conclude almost anything based on available data. In such cases there is a tendency to cherry pick. This means looking for evidence to support pre-defined beliefs and opinions, rather than being led by the data.
- When conducting thematic analysis, a large amount of qualitative data needs to be summarised and condensed. This can result in over-simplified analysis which loses much of the detail and nuance of the original data.
- Data storage is often a problem with qualitative data. It is easy enough to store and retrieve qualitative data electronically, but it may be hard to process that data. By contrast, quantitative databases are generally easier to design, and information is easier to process.
- Within qualitative analysis there are many different potential areas of bias, not all of which are present in quantitative analysis. This includes sampling bias, because most sampling of qualitative data is carried out through purposeful rather than random sampling. There may also be biases arising from the way in which interviews or observations are conducted (e.g. asking leading questions or not fully recording answers). And there are many potential areas of bias in documenting, summarising, interpreting and reporting data.
- To a large degree the accuracy of qualitative data collection and analysis depends on the skills, integrity and sensitivity of the people responsible (Patton 1990). This is in contrast to quantitative analysis where the validity of findings comes from the methodology. Experience suggests that some people are good at qualitative analysis and some are not. Some people can be trained to be good at it and others are less receptive. Some level of intuition – an ability to see through or beyond the data – is often required when handling large amounts of qualitative information.

## Electronic data analysis

There are many different software packages that can be used to help with qualitative data analysis. However, there is no standard package that can suit every situation. Software packages tend to support qualitative data analysis in areas such as:

- the automatic coding or sorting of information;
- organising and labelling data;
- searching for key words or phrases; and
- data visualisation – presenting data graphically in order to show patterns and trends.

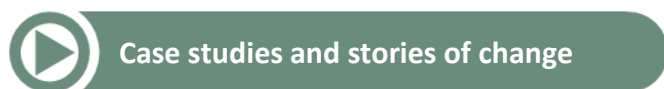
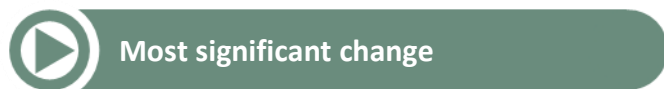
These packages can be valuable if there is a large amount of qualitative data to handle. However, it is important to recognise that there is, as yet, no computer program that can do all the work of data analysis and interpretation. The

most a software package can do is to help manage, store, code and process data. Beyond a certain point the actual interpretation always has to be done by humans.

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## Further reading and resources

Further papers in the M&E universe series deal with qualitative data collection and analysis methodologies such as the most significant change (MSC) technique, outcome harvesting, contribution analysis and process tracing. Two other papers deal with case studies / stories of change and sampling respectively.



Michael Patton's book on Qualitative Research and Evaluation Methods – now in its fourth edition – is generally accepted to be one of the most comprehensive books on qualitative methodologies, including qualitative analysis. A slightly cheaper option is a qualitative evaluation checklist produced by the same author in 2003, which is freely from the internet. The guide by Bricki and Green (2007) referenced below was written for Medecins Sans Frontiers and contains a great deal of useful advice that is applicable to CSOs.

A useful set of materials and tools to help people make sense of data originating from multiple sources can be found at the website <https://www.acaps.org/methodology/analytical-thinking>. These materials were generated by ACAPS for use in humanitarian situations, but are also useful for meta-analysis more widely within social development.

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### Author(s):

**Nigel Simister, Dan James and Letisha Lunin**

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