Analysing Qualitative Data

Qualitative data collection tools can provide you with valuable and detailed information about your project. However, you may find that they return large volumes of data, so knowing what to do with it all can seem overwhelming at first. In order to make the best use of your qualitative data, you'll need to organise it into themes that are relevant to the outcomes you're measuring.

This document will explain how to make the best use of your qualitative data. Qualitative data is typically generated through data collection tools such as interviews, reflective diaries, and open comment questions in surveys. Its main purpose is to help you understand the range of opinions and experiences of the people you spoke to for your research. Whereas **quantitative** data is more useful for understanding trends and averages across a large group of people, **qualitative** data can help add meaning and context.

Coding your data

The first step in analysing qualitative evidence is to identify which data relates to the particular outcomes that you are measuring. You can do this by **coding** your data.

Coding is the process of labelling your data so that it can be easily retrieved at a later stage for further analysis. It's similar to using a hashtag on social media: people who are interested in a particular topic can search for a hashtag to find all posts related to that topic, and your use of that hashtag will ensure that your post shows up in their search results. Similarly, coding or labelling evaluation data can help you to find all the data labelled with a particular code and see it all in one place.

See the below image for one way this can be done.

Session 1

Participant 2 – *When I went in the room and saw all the different equipment I didn't really know what I was doing there, I wasn't drawn to anything in particular. We got shown round all the different bits of equipment and started working with a sound editing computer programme but I got annoyed at myself because I couldn't think of anything I wanted to do and someone else in my group seemed to get the hang of it really quick. Mine sounded rubbish but it was interesting to get the chance to see it all on the screens.*

Participant 5 – *To be honest I'm not sure if it's my thing. It was a bit boring and I'm not very creative. It doesn't look like its for me but I will keep going because [name] is doing it*

Session 15

Participant 2 – *I've just finished recording the first song for my Arts Award portfolio, it's [name] and [name] playing Chasing Cars. At one part of the day I could feel myself getting annoyed with them because they kept getting this one bit wrong. But it will take me a while to get it edited anyway so I can always go back and ask them to redo it if it sounds bad. I'm excited to get started on the mix.*

Participant 5 – *I spent most of the session helping [name] with a bit of her mix because I'm a bit further ahead than her and she was struggling with some of the equipment so she asked me to help because she said I'm good at it. She said at the end that she was glad we worked together because she wasn't really enjoying herself before I started helping her and that made me proud of myself for sticking it out.*

KEY

Musical
Personal
Social

Tools, tips and tricks

There are many ways to carry out the coding process.

On paper – some people prefer to print out their qualitative data sources and annotate them manually. If you find colour-coding helpful, doing this using highlighters or coloured pens and pencils is a great visual way to organise your data. Alternatively, drawing different shapes, or using sticky dots, labels or post-its all count as useful ways to mark out themes in your data sources.

Digitally – if you prefer to work on a computer, you can copy & paste sections of the data into separate documents or an Excel spreadsheet, use different font colours in Word, or tag your themes using the Comments function in Word. There is even specialised software you can buy, such as QSR NVivo.

Coding: step by step

Whichever method you choose, separating your qualitative data into themes will help you to identify whether there are any similarities in the data from different people or sources. In this section, we take you through each step of coding your data.

1. **Prepare your data** – before you start working on the data, it's good to make sure it's in a suitable condition to work with. This can involve several things:
    a. Think about how best you will work with the data and format it in a way that's most useful to you and your chosen way of working. For example, if you are going to print the data sources and annotate them by hand, you might want to put wide margins on them to make space for your notes, or enlarge the font size to make them easier to read.

    b. Make sure each separate data source (e.g. each interview transcript, reflective diary, survey response etc.) is clearly marked so you know who it came from. You might want to make use of a pseudonym or code for each participant (see our resource on Ethics and Data Protection for more info), but particularly if your transcripts are more than one page, labelling each individual data source will make your life easier, particularly if you're working with printed copies. We also recommend putting page numbers on them (this will make sense later!).

    c. Try to remove identifying features such as names or places from the data. This is easy to do with electronically stored data: you can either replace any identifying words with pseudonyms or by using square brackets and descriptors e.g. [name] or [School name]. This is particularly important if you're involving other people in the analysis. We understand you might not want to do this with hand-written evidence such as diaries or surveys, again our Ethics and Data Protection resources has tips for best practice on ways you can ensure the data is safe.

    d. Once you're happy that your data's in a good state to start sifting through, then you can get going. If you're working with hard copies of your data – print them out and think about how you'll keep them together – we recommend making use of a ring-binder to keep the papers together and in order.

2. **Read through your data** – the first thing to do before you get too far into the coding and analysing process is to read through everything to familiarise yourself with the data. Try not to think too hard about separating anything into themes – that will come a bit later – this first step is really just to get you in the right frame of mind and help you understand what you're working with.

3. **Read it through again** – once you've got a sense of everything you're working with, it's time to start reading through with a bit more purpose. We'd recommend making some rough notes in the margins or comments of your

documents. These don't need to be concrete for now, but by starting to write down some general reflections as you work through, you'll be able to recall notable sections later in the process.

4. **Start identifying some themes** – this is where the coding process comes in. The aim is to find parts of the data that relate to an overall theme. Think of this as storing your data in a filing system: each theme is a folder, and each individual quote or piece of data lives inside that folder.

    a. It can be hard to know how much detail to go into. You could focus on a few top level themes or you could take a much more granular approach. We suggest looking for parts of the data that relate to each of your intended outcomes. Choose a colour/shape/marker/number = to label the parts of the data that are relevant to each outcome. **<u>REMINDER</u>**: make sure you're coding both positive and negative evidence. For example, if one of your outcomes is about musical skill, and there's a part in the data suggesting a decrease in musical skill, you should still code it under that outcome.

    b. As you begin to code the data, we recommend opening a separate document/grabbing a separate piece of paper and making a note of which colour/shape/number refers to which theme. This will help you as you go through and will remind you what you've already identified as a theme.

    c. You may find that there are parts of the data that relate to more than one theme. That's ok – you can code the same section under as many themes as are relevant.

    d. The process of coding your data against your intended outcomes, then analysing it for evidence of progress is a top-down approach that focuses on expected findings. However, you may find that there are parts of the data that are noteworthy but don't necessarily relate to these expectations. It's important to make a note of these unexpected themes too – we want to know about any unplanned outcomes from your project as well as your progress towards the ones you set in your evaluation plan!

    e. A tip about language: you might find that participants, parents or staff members might not use the same words to describe their experiences as you. For example, your project plan might have an outcome around improving social skills, whereas the people you gather your data from might refer to making friends, communicating, or working well in a group. Use your judgement to decide which parts of the data relate to which theme you have identified.

5. **Review your themes** – as you've worked through each of your data sources, particularly if there are a lot of them, you might find that your coding process develops a little the more familiar you become with the coding process. It's worth checking back through your data sources, particularly the ones you

started off with, and ensuring you're still happy with how you've organised the data into your chosen themes.

Analysing your data

Coding your qualitative data into themes is a great first step in the analysis process. It gets you thinking about the data in terms of how it relates to your outcomes, and the detailed and repetitive nature of the coding exercise will mean that you'll probably be fairly familiar with the data once you've done this.

Whilst sorting the data into themes is an excellent start and will help you to make the best use of it, you will need to delve a little further into what the data is telling you about each of these themes. To use the filing system analogy again: if coding was the process of sorting your data into their relevant folders, then the next step is to open up the folders and explore what's inside them.

It can be hard to know exactly how much depth to analyse your data in. We recommend that you start with your intended outcomes that you set at the beginning of your project. Work through the coded data, one outcome at a time, and look for evidence to suggest progress towards it.

The way you choose to analyse the data might depend on how many times you collected it. For example, if you collected qualitative data at multiple points in the project, the typical way to analyse it would be to compare the data from each collection point for evidence of change – e.g. searching for changes in their opinions, attitudes and experiences over time.

If you collected data at the end point only, you might want to look for points at which the participant reflects on how far they feel they've progressed since the start.

Different ways of reading the data will give you different understandings of the group's collective and individual progress toward this outcome. Having coded the data by theme/outcome, you will be able to recognise whether there are any similarities in the experiences of different participants. However, you might also choose to read through the separate transcripts/diary entries for each participant in chronological order to get a better feel for their individual journeys through the project.

As you review your coded data and start to identify trends and patterns, write down your initial thoughts and observations about what the data is telling you about progress towards the project's intended outcomes. Make notes of particularly good quotes or parts of the data that support your observations – this will come in handy later on for presenting the data.

Checkpoints for analysis

Analysis of qualitative data can be quite subjective. There are all sorts of factors that come into play when interpreting qualitative data –it's good for the person analysing the data to challenge their assumptions and thinking about external factors before drawing conclusions.

Here are some questions you can ask yourself when thinking about your interpretation and analysis of the data:

- **"Does this data reflect what I was expecting to see?"**

  Sometimes the data might not match up to what you were expecting. For example, if you observed a session where a young person demonstrated an improvement in skill, you might expect their data to reflect this. However, sometimes that young person might tell you conflicting information in their interview/diary/survey response. In this case, the data may not fully reflect what you were expecting to see and it might be worth exploring this further to understand the situation better.

- **"Do my quantitative and qualitative data compliment or contradict one another?"**

  Similarly, if you're using a mixture of data collection tools, you can check your analysis of the qualitative data against any quantitative data you have from the same group to see if the results match up. If you do this, it's important to remember that this should only be used as a general way to check your analysis rather than as a direct comparison – there are many reasons why one result might differ from another (see the bullet point about external factors below). If your quantitative and qualitative results differ wildly, you might want to think about why that could be. Which do you trust more?

- **"What external factors could be contributing to this result?"**

  Although the purpose of all this research is to evaluate your project, you must bear in mind that any changes you witness that could also be partly attributed to things taking place outside of your project. For example, if you're measuring participants' musical skill, and your data all points towards an improvement, you can probably assume that this improvement is at least in part due to your project. However, it's worth thinking about what else could be contributing to this improvement. Are participants having additional music lessons outside of your project? Do some have the means to practise at home whereas others don't? Conversely, your music leaders could observe a vast improvement in musical skill, but the self-assessments of young people might contradict this and suggest a decrease over time. Is this because they truly feel their skills have decreased, or has something else happened that could contribute to a lack of confidence on the day you collected the data from them? Whatever the reasons or factors, it's recommended that you take a little time to explore these in your evaluation.

Many of these questions can be answered by **triangulating** your data. In your evaluation plan, you will likely have set indicators for each outcome that consider different viewpoints (e.g. from participants, music leaders, parents…) in order to draw conclusions about the level of progress towards the outcome. Combining the responses from all of your different indicators will give you a much better idea of how much progress has been made towards an outcome.

As you do this, you may find that they all support the same conclusion. If so, your work is done – now you just need to write it up! However, more commonly, you may find that different sources don't always match up in a straightforward way. In this case, your task will be to determine the true level of progress toward your intended outcome by considering the relative strengths and weaknesses of your different indicators and sources of evidence.

You can also ask a colleague to explore the data and check your analysis to see if they reach the same conclusions as you. Alternatively, if appropriate, you could take your conclusions back to the people you gathered the data from and ask them if they feel your interpretation is accurate.

Get in touch with Youth Music

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