**Learning Development**

# Qualitative data analysis essentials.

In a qualitative research project, the data analysis is often the most challenging component. It is also the most important, because it is the part that helps you to answer your research questions. After you have collected all (or most) of your data, you need to start asking yourself what it means - analysing it. This guide will cover the basics of what you need to know in terms of the process and the different approaches you can use.

## Processing your data.

Before you can start your analysis, you need to get it into a usable form. For interviews, this means transcription. For qualitative surveys with long answers, this means either typing up the handwritten responses or transferring them out of the online survey tool into an MS Word or Excel document. For text or document analysis, it means getting them into consistent format that you can annotate, such as MS Word or editable PDF format. For images, video or music you may need to establish separate files where you can make notes on your analysis.

A note on transcription: transcribing means writing word-for-word what is said in interviews. It is usually expected that you will complete a full transcription for all interviews. This is extremely time-consuming and can take up to 10 hours to transcribe an hour-long interview. However, this process gives you important insight into what is being said and the nuances or shades of meaning that your participants give to their words.

## Approaches to data analysis.

**Inductive or deductive:** the first question is where will you get your analytical structure from. Are you using an existing framework, either from a theory or from previous research? If so, you're taking a deductive approach. Or are you looking at your data and letting it determine the analysis? If so, you're taking an inductive approach. Which one you select depends on what previous research has been done in the area. If there is a lot of existing literature, you can probably adopt a deductive approach which is usually easier. This means you need to use your literature review to compile a framework of themes or discursive patterns. If there is very little existing literature and you are researching in quite a new area, you will probably need to adopt an inductive approach.

**Thematic analysis** is the most common analytical approach in qualitative research. It basically means looking for patterns and main ideas (themes) in the data. For example, let's say you are researching nurses' attitudes towards ongoing professional training. You can expect a range of different attitudes, from positive to negative. They

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might mention how limited their time is, the cost of training courses, the pride they take in professional development, the importance of updating core skills, and so on. Your themes might be 'obstacles' (including time and cost), and 'professionalism' (including pride and skills). Before you start your research, trying to guess what these themes might be could seem impossible. But once you start the literature review and begin collecting your data, they will emerge. They are also likely to change throughout the project - don't be scared of this. Your view and analysis will shift as you go deeper into the project and that's a good thing.

**Discourse analysis** looks for how language interacts with knowledge, meaning and power. If you're interested in, for example, how particular word choices in news coverage shapes people's perception of the issues, then discourse analysis might be a good approach.

**Content analysis** is usually a deductive approach which turns qualitative information (e.g. words and images) into quantitative information. This can be done through word counts, for example.

## Coding.

Coding is the mechanical process that all the above methods of data analysis rely on. Basically, it means that you assign a label to a section of text, video, music, or image. For example, if you were interested in the extent to which Photoshop has been used in fashion photography, you could code an area of an image which showed manipulation. Or if you were interested in the use of positive coaching techniques by teachers in the classroom, you could code every instance of encouragement by teachers in your observation notes.

Traditionally coding is done manually. On paper, this means physically highlighting, or cutting up your interview transcriptions, and annotating them (writing the code on the relevant bit of paper). On the computer, it might mean highlighting with a colour code (a different colour for each theme), or making comments in the review function of Microsoft Word or Google Drive.

The goal of qualitative analysis is to put everything that has the same code together and see what the collected statements say. If you're doing this in MS Word, you could select everything that's coded green and copy over to a new document. Then you can read the whole code together.

If you're dealing with lots of data, this process could get confusing. You need to be very organised and maintain a consistent system throughout. For example, keep a separate document which lists your colour codes and the related themes.

## Interpreting and discussing.

Once you have completed your initial analysis, you need to decide what it means and how it answers your research questions. You will need to refer back to the previous research from your literature review or to your theoretical interest and compare it: do your results confirm or contradict previous research or theoretical predictions? What implications does this have for the field?

This stage can feel quite formless and difficult to define. Sometimes the best thing to do is simply to start writing. Structure it around three or four of your key findings or main conclusions, and then explain them in more detail and relate them to the literature. Insights often develop through writing in this way.

Top tip: conduct a 'pilot analysis'. Take one piece of your data and apply the most straightforward approach. Does it work? Why or why not? What do you need to change? If you think it works, carry on. If you need to change it, do so, but make a note about what you are doing and why.

## Writing up.

You need to write a section about how you analysed your data. In a traditional dissertation or project structure, this is usually a part of the methodology chapter or section. In a more thematic or narrative structure (such as is more common in the arts and humanities), you will still need to address this issue, but may do so less formally in the introduction or first chapter.

You need to cover: what you've done to your data, why, and whether any limitations applied.

## Further reading:

Miles, M.(2014) *Qualitative data analysis : a methods sourcebook.* London: SAGE.

Grbich, C. (2013) *Qualitative data analysis : an introduction.* 2nd ed. London: SAGE.

Harding, Jamie. (2013) *Qualitative data analysis from start to finish*. London: SAGE.