

KNOWHOW

Fife Research Co-Ordination Group...sharing knowledge across Fife Partnership

Know How No 3 *guidance for research and evaluation in Fife*

Using Qualitative Analysis Software

□ **Why Use One?**

Qualitative research can be particularly useful as a means of addressing questions of how and the why, but it can generate a lot of information, which it can be hard and time consuming to organise, keep track of and extract. Using a qualitative analysis software package can make the process much easier and much quicker.

□ **What Do They Do?**

There are a number of software packages available, but all contain some common features.

1) Data storage and management

Software packages will allow you to enter your raw data directly into the package, and will then hold your documents securely, much as a word processing package does. It is possible in some of the packages to enter rich, formatted text directly; others will require a standardised format such as plain text. The newest packages will also handle visual material such as photographs, diagrams, video and links to WebPages. Most packages will also let you annotate and edit the material once it is entered, although the ease with which this can be done is variable. The package will generally have some form of automatic indexing of material, and will allow you to add your own identification information such as date and context. You can store huge quantities of data on the packages, provided your computer has sufficient capacity, but beware of being tempted to gather more data than you can analyse!

2) Data searching and retrieval

The package can search textual data for particular words or phrases. If you wish to count frequency of certain words for content analysis, this can be done easily. Boolean operators

such as AND, OR, NOT, NEAR can be used to refine searches and test out emerging theory. The package will retrieve data with appropriate context – the word you are searching for needs to be seen in the context of the sentence or paragraph from which it comes. Retrieval also includes identification of the data – you will know which interview or field note the data came from, and whereabouts in the text it was sited.

3) Coding

The process of coding and re-coding, is made a great deal simpler by using a computer package. Small sections of data can be highlighted and assigned to a pre-existing or new code in a matter of seconds. Items that have been coded are stored as 'nodes' and can be searched in the same way as documents. Nodes can be given titles and descriptions chosen by the researcher. They can also be combined with other nodes, subdivided, or built into conceptual models to develop theory.

4) Developing and testing theory

Packages vary in the extent to which they allow theoretical modelling, but all will enable relationships between

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nodes to be explored and displayed. NUD*IST uses a hierarchical system which takes a 'top down' approach, dividing and subdividing major concepts into their constituent elements. This may be ideal for a policy orientated approach such as framework analysis but, in our opinion, is less good for grounded theory. AtlasTi is much less prescriptive, and allows diagrammatic representation of relationships between concepts. This fosters a more inductive approach, allowing theory to be built 'upwards' from the data itself. NVivo basically uses the same hierarchical approach as NUD*IST, but has more flexibility within it and offers quite advanced modelling facilities including graphical representation.

5) Writing reports

The software packages will produce reports as requested by the researcher printing out the entire dataset in one 'node' or code, for example, or reproducing a section of a document. The results of a search as described above are held as a node, and can be reported upon. This makes it quite easy to incorporate verbatim quotes or visual material into an analytical account or article. It is also possible to write a 'journal' within the package, enabling the researcher to record memos and ideas throughout the analysis process. This journal can similarly be printed out as a textual document.

□ What Do They Not Do?

A package cannot 'do' the analysis, because it lacks the capacity to think, reflect and analyse. Computer-aided analysis can be deceptively easy – coding and searching, for

instance, is quick and satisfying, but it is then possible to keep the analysis at a superficial level, without the deep engagement with the data that is a hallmark of good qualitative research. At the end of the day, there are no short cuts to the demanding process of reading and rereading the data, sorting, categorising and analysing the data and building and testing theories. In making a decision whether or not to use a software package, it is worth asking a few questions:

- Do I have the resources to buy the package? (Most cost between £400-£6000)
 - Do I have the time and inclination to learn how to use the package?
 - Will I be able to use the software again? If so, the investment of time and money may be more cost effective.
 - Do I have a lot of data to manage? (E.g. more than 6-10 hours of interview or equivalent). If not, it may be as easy to use manual methods.
 - Do I like working 'on screen' or do I prefer paper-based methods?
 - Are others involved in the research able and willing to use the software package?
- **Where Can I Get More Information?**
- www.caqdas.soc.surrey.ac.uk practical support, training and information on qualitative analysis packages
 - Links to software package websites, often with free trial versions available.
www.qsrinternational.com/
www.maxqda.com/maxqda-eng/start.htm
<http://www.atlasti.de/>
<http://www.qualisresearch.com/>

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