

METHODS BRIEFING 17

Online Support for QDA and CAQDAS and Evaluation of Learning Needs

Graham R Gibbs*, Nigel G Fielding**, Ann F Lewins**, Celia Taylor*

* University of Huddersfield

** University of Surrey

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There were two main activities in this project

1. an evaluation of the learning needs of those undertaking qualitative data analysis (QDA) and computer assisted qualitative data analysis (CAQDAS) to guide the design of the online resource.
2. the development of an online resource to support these learners.
(**Online QDA**, <http://onlineqda.hud.ac.uk/>)

Online QDA web site

ONLINE QDA NEW OnlineQDA Discussion Board <http://onlineqda.hud.ac.uk>

Intro | Intro QDA | Intro CAQDAS | IT skills | Which s/w? | Step-by-step s/w | Advanced s/w

Software tools

Authors of this page: [Graham R. Gibbs¹](#), [Celia Taylor²](#) and [Ann Lewins²](#)
Affiliation: ¹[University of Huddersfield](#) and ²[University of Surrey](#)
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Coding

Coding involves identifying words/phrases/lines/sentences/passages of text in a document or an image or part of an image that represents an idea or concept. This is then linked to a named code that represents that idea or concept. This shows that it shares the characteristics indicated by the code and/or its definition with other similarly coded passages or texts. All the passages and images associated with a code can be examined together and patterns identified. Programs differ in how they support coding (including in vivo coding, and code creation) and how they manage to show coded segments in context.

Codes can be arranged non-hierarchically (free codes) as a simple list. This enables nodes to be created without having to worry immediately about how they relate to other codes. The codes can also be arranged as a hierarchy (trees) with a branching arrangement of codes. Ideally, child codes in a tree relate to their parent codes by being 'examples of...', or 'contexts for...' or 'causes of...' or 'settings for...' and so on. Most CAQDAS packages allow flat and tree (hierarchical) coding, but some software, though they principally allow for flat coding, do allow you to make collections of codes or draw connections between them that allow for types of hierarchical approach.

Auto-coding

The function in some CAQDAS programs to code the results of a search for words or phrases in the text itself, e.g. in MAXQDA and ATLAS.ti this is an option. In NVivo and Realist by default, searches produce a new node.

Where am I?

- Methodologies
- Resources
- Glossary
- Contribute Materials
- Site Map
- Discussion Board
- Contact

Notes

You need a clearly defined methodology or analytic strategy before you begin to analyse your data in a CAQDAS package. VISIT [Introduction to qualitative Data Analysis and Methodologies](#)

Feedback

This page solved my problem ...
Finding this page was ...
The content for this page was ...
What could improve this page?

Key contents of the web site are:

- Information addressed at different levels of user from our target audience of qualitative researchers. This includes:

those new to qualitative data analysis in general and especially to the use of CAQDAS software;
those thinking of using CAQDAS software who may be familiar with QDA;
experienced researchers just starting with CAQDAS software;
and experienced CAQDAS users with problems using the software.

A series of methods briefings from projects funded by ESRC as part of the Research Methods Programme.

The Programme aims to develop qualitative and quantitative methods within the context of substantive research. It also aims to encourage effective dissemination of good practice.

Further copies are available from:
CCSR
2nd Floor
Crawford House
Manchester
M13 9PL

0161 275 4891

www.ccsr.ac.uk/methods/

- Material addressing the basic learning needs for a range of software programs, including NVivo, ATLAS.ti, MAXqda, Nud.ist6, HyperResearch and Transana. Material is thematically arranged to show the way that such programs are used to undertake common activities in QDA such as coding, recoding, searching, reporting, setting up projects and memoing.
- Material about the advanced range of activities supported by some of the programs. This includes topics such as teamwork and using project merging, code searching (including matrix searching), sorting out the codebook/code hierarchy and automatic coding.

Salient features of this are:

- A horizontal menu bar, with pop down menus that appear when the mouse is moved over an item. These reflect what we concluded from the needs analysis were the main areas of training need and form a logical grouping of issues. Users can get some idea of the further page content by hovering their mouse over each title to see the further menu options.
- A Search tool, that can find any content on the pages in the site and uses the Google search engine
- On the left hand side, a menu of global items. These are items we felt that users might want to consult at any time during their use of the site. This includes a 'breadcrumbs' device, so that users can retrace their movement back from their current page, a page of information about different qualitative methodologies, a long page on resources (reflecting the methodologies) both online and offline, a glossary of key QDA and CAQDAS terms, an invitation to contribute materials, a site map, a link to the discussion board and contact details.
- Below this on the left hand side some pages have a notes section that includes important warnings about material on this page or, more commonly, references on to key material complementing that on the page.
- A feedback box using pop-up menus.
- On the right, the main contents of the page. As far as possible we have used images to enliven the page, but most content is text (or

in some cases video). Key pages include an attribution box at the top.

- A log on box. This appears on first entry to the web site just below the menu box on the left hand side. It shows on all pages until the user has logged in and then disappears. The log on is optional as we did not want to create any obstacle to usage but we wanted to gather data about some users and provide an option for further contact and advice.

The menu bar gives access to the main pages in the site.

- There is a set of pages giving an introduction to QDA. This is aimed at those with little experience of QDA and gives strong advice for those new to QDA to develop a clear view about their methodology and directs users to links in the Methodologies and Resources pages.
- There are pages that provide an introduction to the use of CAQDAS programs. These are aimed at users, who though they may be familiar with QDA are just getting started with using computers to assist them. There is also some help with choosing software under the 'What s/w' menu. This area also includes a wide-ranging list of software available with links to appropriate websites.
- Our evaluation of learners' needs indicated that for many researchers new to software, the problems they experienced were often a reflection of their inexperience with the operating system, Windows. There are therefore some pages indicating the basic Windows procedures that all users should be aware of.
- For those starting to use specific packages there are sets of pages that provide introductory support for users. The programs covered are Atlas.ti (v. 5.0), MAXqda v 1, NUD.IST v6, NVivo v. 2, HyperRESEARCH, and Transana. These are complemented by some pages with advice about how to set up your documents and transcripts in the appropriate way for each program.
- Finally there are some pages covering more advanced topics.

Evaluation of learning needs

To evaluate learning needs we undertook a range of interviews, observations with 34 researchers using the software and an online survey.

1) Does software change the way that researchers undertake qualitative research?

In some ways, we found this. For instance users sometimes stayed within the familiar procedures supported by the software and perhaps relied too much on automatic software functions rather than reading and analytic thinking. However, others remained cautious about some of the software functions and the strong views of software developers about the software's influence on QDA.

Many respondents expressed fears and anxieties about using CAQDAS. These were much more related to uncertainty about quality of work and concerns about how muddled /inefficient/ use of software caused wrong turns in thinking.

2) Is there adequate support training in QDA and CAQDAS?

There was significant variability in local support and investment in teaching and learning about QDA and CAQDAS. Most respondents felt well supported for the theoretical aspects of their work, but less well supported for CAQDAS. There was often a failure to sustain learning and familiarization momentum after initial training and sometimes a lack of detailed methods support for those working outside the main social science areas (i.e. areas not supported directly by the ESRC). Some software users misunderstood the relationship between software and QDA and thought that software would do the analytical thinking for them.

However, facility with the software did not necessarily translate into high quality QDA. Some self taught researchers seemed to have problems perceiving the larger picture of what the software could and couldn't do, or had limited or unrealistic perceptions of its usefulness.

3) Practical difficulties in learning to use the software

The most common were problems in using the search facilities. But users also got confused

about coding hierarchies, organising code books, awareness of the different types of qualitative analysis (including mixed methods), the phase of analysis that moves from coding and notes to a full, theoretical narrative or write up, and bringing different aspects together in a project e.g. socio demographic variables and conceptual coding.

4) Who uses CAQDAS?

This picture was complemented by the online survey we undertook. 251 researchers replied, with three-quarters of replies coming from universities. Nearly 45% of respondents were from the UK with just over a quarter from the US or Canada. The biggest group was PhD students (32%) with significant numbers of academics and researchers.

a) The most frequently used analytic approaches were, grounded theory (over half of the respondents used this approach), ethnography, action research, narrative, action research and discourse analysis. However, many respondents used more than one analytic approach. It has been argued that CAQDAS programs are biased in features and tools towards grounded theory (MacMillan and Koenig 2004). Although there are some doubts about the representativeness of this sample, the distribution we have found can be interpreted in two ways. Either, the software is right to reflect grounded theory as this is by far the most common qualitative analysis approach, or a consequence of the bias in the software is that grounded theory is the most common approach. We tend towards the former interpretation, as it seems unlikely that CAQDAS has had that much influence.

b) Table 1 shows the distribution of respondents across analytical approaches for the four most common discipline identifications. The popularity of grounded theory was preserved in most disciplines except, unsurprisingly in anthropology. Ethnography was popular in anthropology and also in education, as is action research. Overall the picture is one where a few methods predominate in most disciplines, but at the same time there is a wide variety of approaches adopted by some researchers, with no discipline showing any exclusive methods.

Table 1 Numbers of respondents using the most popular analytical approaches, by discipline
(N.B. Some respondents indicated more than one approach)

Analytical Approaches	Principal Discipline			
	Anthropology	Education	Psychology	Sociology
Grounded Theory	10	20	23	12
Ethnography	17	14	4	5
Action Research	1	12	7	7
Narrative analysis	5	11	9	3
Discourse Analysis	7	8	9	5
Constructivism	2	9	7	5
Conversation analysis	6	9	1	2
Life history/Biography	6	4	2	3
Symbolic Interactionism	2	7	2	5
Phenomenology	3	7	4	1
Interpretive Phenomenological Analysis	3	6	2	-
Framework method	1	3	1	3
Hermeneutics	3	4	1	-
Frame Analysis	1	1	-	5
Ethnomethodology	2	2	2	1
Others	3	11	1	6

Most respondents had received some training in QDA, though over a quarter were self-taught. 70% of the postgraduates had received some QDA training. Not everyone used CAQDAS all the time though. Nearly three-quarters had done QDA without software assistance. This was often because there was no access to software at the time but also because the researchers considered the data set too small or it would take too long to learn the software. Although 18% had never used software, for those who had, the most popular programs by far were NVivo, ATLAS.ti and Nud.ist.

Selected Publications

Fielding, N., Gibbs, G.R., Lewins, A. and Taylor, C (2006) "Qualitative phase of the formative evaluation of learning training needs in computer assisted qualitative data analysis." Working paper, *The Research Methods Programme*. <http://www.csr.ac.uk/methods/publications/documents/WP28.pdf> (accessed 26th May 2006)
Gibbs, G.R. (2007) (in press) *Analysing Qualitative Data*. London: Sage. Part of the Qualitative Research Kit, ed. U. Flick.

Lewins, A. and Silver, C. (2007, in press) *Using Software in Qualitative Research: A Step-by-Step Guide*. London: Sage.

References

MacMillan, K. and Koenig, T. (2004) 'The Wow Factor: Preconceptions and Expectations for Data Analysis Software in Qualitative Research', *Social Science Computer Review*, 22(2): 179-186.

Further details are available from:

Graham Gibbs

Email: G.R.Gibbs@hud.ac.uk

Phone Number: +44 (0) 1484 472275

Website: <http://onlineqda.hud.ac.uk>