

# Using NVIVO in relation to the establishment of causal configurations.

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1. The first thing to appreciate is that we are here concerned with understanding which is to do with the establishment of cause. Our methods do involve INTERPRETATION but in a rather different mode from that which Vulliamy has described in a recent paper:

‘... ethnographers, influenced by traditions such as poststructuralism, postmodernism, feminism and postcolonialism, that stress multi-perspectivism and the complex interrelationships between language, knowledge and power, have been critical of code and retrieval software packages and the grounded theory approach underpinning them. ... Instead they have experimented with the textual presentation of data through hypertext and hypermedia programmes, where the reader can choose different pathways through both selections of qualitative data – such as field notes, documents or interview transcripts – and the author’s discourse analysis of them. They argue that hypertext software helps preserve the complexity and multi-meanings of social life by enabling a presentation of text that is non-sequential, unlike code and retrieval packages which privilege the sole linear account of the researcher.’ (2004 270)

If there is a continuum which runs thus in qualitative work:

Post-Interpretation – thematic grounded theory – case centred grounded theory – data construction content analysis

Then the position described here falls somewhere between case centred grounded theory and data construction. Those of you who have used NVIVO will know that the traditional emphasis has been on reviewing the data in an interpretive fashion in order to establish NODES in TREES. I have inserted below two slides from a presentation given to Masters’ students which was about mixing quantitative and qualitative methods. They define the actual general approach of qualitative researchers as concerned with a theorization which is holistic and not reductionist.

**AND YET:**

What kind of explanations do qualitative researchers offer in terms of visualizations? They generally develop models – NVIVO has a modelling tool – which look remarkably like the variable based models of traditional quantitative causal modelling. Sure, they don't have numeric values attached and the format is looser but there is a real belief in things which matter outwith the cases themselves. This is not adhering to the phenomenological project of 'GOING BACK TO THE THINGS THEMSELVES'. In other words it remains analytical.

## **Interpretivism - often associated with qualitative research:**

- Reality is socially constructed through collective definitions of phenomena.
- The goal of research is to interpret phenomena from multiple perspectives.
- Importance placed on multiple meanings of individual experiences
- Meanings socially and historically constructed, with an intent of developing a theory or pattern.
- Ethnographic methods (e.g. participant observation) and interviews are best because they provide the basis for sharing interpretations.
- Immersion is the ideal state during the research process.

# Inductive Logic – associated with the Qualitative Approach

Generalizations and/or Theories, Past Experiences and Literature



Researcher Looks for Broad Patterns, Generalizations, or  
Theories from Themes or Categories



Researcher Analyzes Data to Form Themes or Categories



Researcher Asks Open-Ended Questions of Participants  
and/or Records Fieldnotes



Researcher Gathers Information (e.g. interviews, observations)

(Creswell 2003)

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## Traditional Use of NVIVO

What most people do with NVIVO is work through the texts they have and code blocks of text to one or more NODES or sub-nodes representing themes. The purpose is largely to retrieve illustrative material for a textually based argument. Occasionally but not that often the model building facility is used to construct a visualization of the relationship among themes. THERE IS NOTHING WRONG WITH THIS. However, a case based approach is different. It begins with attributes. Let me quote the NVIVO help facility on this topic:

### Attributes

Attributes are information about the people, sites or other items represented by the [documents](#) or [nodes](#) in your [project](#) . For example, a document may be an interview with a person whose age and gender you know. A person may be discussed in many documents. [Code](#) all the documents at a [case node](#) for the person, and create the attributes ‘Age’ and ‘Gender’ for the case node. As more material comes in, code it to the case node, and the attributes are automatically applied.

You may already have this information, or you may gather and record it as your project progresses. Recording attributes will allow you to search your data more effectively. For example, you can use attributes to see whether men and women (or Catholics and Protestants; or primary school and high school students) hold different views on a topic. If you have a table of information about the people, sites or other items represented by your documents or nodes, you can import that and create the attributes and values needed to store that information. See the Violence Prevention Stage 1 tutorial for an example of table import.

Attributes and their initial values can be created before they are assigned to any items. They can be changed at any time. For example, you might start with the values “Rural” and “Urban” for the attribute ‘Location’, then when you realize the significance of semi-urban locations and different rural settings you might add further values and assign them to items that are considered to suit those values.

You can also delete an attribute value or replace all of its occurrences with a new or existing value. To give a document or node the attributes of some conceptually related node, you can copy the attributes of another item.

Attributes can be imported from any software that creates tables – SPSS, Excel, or simply your word processor. See [Importing Attributes](#) for full details.

## Exporting Attributes

From the [Attribute Explorer](#) :

Select File > Export.

If you wish, type a new name for the exported table.

Click Save.

NVivo creates a [tab-separated table](#) containing the attribute values. You can open the file in a spreadsheet or statistics program to work with your data. The latest version creates an SPSS dat table which with some care – see below – can be entered into SPSS.

## A Different View of Attributes

Note that attributes are understood in a different way in the above passage from variables. When we measure variables we go to the world with an operationalized mechanism for constructing data. It is perfectly true that with ‘open-ended’ questions we do actually see what the world is telling us before we construct the coding frame through which we constrain text – information held in the natural language of everyday life as Bateson (1984) called it – into data expressed as numbers. However, we do not generally recognize what a revolutionary process this is. We actually let people tell us about the world before we construct our measurements and we do so on the basis of what they have said.

I don’t think the creators of NVIVO actually appreciated the revolutionary character of attributes, although I may well be absolutely wrong. Attributes are measures which emerge from our engagement with textual and other representations of the world. Note what NIVO says above:

*Attributes are information about the people, sites or other items represented by the [documents](#) or [nodes](#) in your [project](#) .*

In other words attributes can be constructed as information about cases, but this information can be developed through a grounded and continuing interpretive engagement with actual information about the world expressed as text and images.

## Our Example

We are going to work with case studies – in the form of publicly available OFSTED reports for a set of secondary schools - in this case five rather arbitrarily selected. I have started constructing attribute sets for these five, although even for a small N fsQCA we would need more examples. You will have access to the NVIVO project and can engage with attribute construction and export. Here the text does include numbers, although the metrics are not consistent from case to case. We will begin with exporting text as nominal variables which we can then nominalize as numbers, ‘fuzzy’ and ordinalize as ranks. So

we are measuring but our measurement system is emergent in terms both of the things we measure and the actual range of values we specify for the measurement.

The OFSTED case studies with URLs are :

New College School Leicester: <http://www.ofsted.gov.uk/reports/131/131945.htm>

Joseph Swan School Gateshead <http://www.ofsted.gov.uk/reports/131/131048.pdf>

Walker Technology College Newcastle <http://www.ofsted.gov.uk/reports/108/108525.pdf>

St Paul's Leicester <http://www.ofsted.gov.uk/reports/120/120307.pdf>

The Hermitage School, Chester-le-Street

<http://www.ofsted.gov.uk/reports/114/114290.pdf>

Since we might have multiple documents relating to any case we should establish each case as a case node in NVIVO. The attribute table will then be a table of attributes for each case node.

Another aspect of NVIVO which can be useful to us is SETS. This is simply a way of organizing things into categories. In general in the creation of attributes we should have a unique set of attributes for each case node but we may well want to organize documents associated with a particular case into sets.

## Some Tips on Exporting Attributes for use in QCA

The easiest way to do this is to save the attributes as an SPSS dat file. Make sure that the attributes are arranged so that attributes are columns and rows are cases.

In importing to SPSS:

1. At step one specify that the imported file does not follow a predetermined format.
2. At step two click to indicate both that the file is delimited and that variable names are included at the top of the file.
3. At step three just press next.
4. At step four make sure that only tab is clicked as a delimiter. Do not have space clicked.
5. At step five you will need to highlight each variable and ensure that it is recorded as the appropriate type – string or numeric – and that it has enough characters allocated for its values.
6. At step six click finish.

You can skip the stage of importing to SPSS and just read straight into fsQCA or Tosmana but it is often convenient to use SPSS's larger repertoire of data management tools for recoding, binarizing, fuzzifying etc.

Be careful about variable names when importing into Tosmana. There is a length limit so using 'Quality of ' to describe quality of three different aspects will give Tosmana the heeby-jeebies and it won't do it.