

Qualitative Longitudinal Analysis in Social Research

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Qualitative Analysis: An Overview

- 1. Overview of basic principles of Qualitative Analysis – the dominant mode of explanation and theory building in the UK. Over 90% of published papers in mainstream British journals use this methodology. (Payne et al 2004) Part of a paradigm shift that favours explanations built on an understanding of lived experiences, human agency, subjective accounts and notions of causality, the interior logic of lives and how these are worked out in social practices (as opposed to positivist objectification and measurement and oversimplified notions of cause and effect – x leads to y).
- 2. The analytical challenges and possibilities that arise in analysing Qualitative Longitudinal – QL - data, including the different ways in which we might slice time into analytical categories. Framework: an example of a tool to support these processes.

QL Analysis and Secondary Analysis

- 3. This workshop covers both primary and secondary analysis of QL data.
- In terms of basic analytical principles and processes, there is a great deal of overlap between these two research endeavours.
- What we do as primary researchers when we revisit our data, often over considerable periods of time, resonates well with the work of secondary analysts. The flexibility of the method gives us the freedom to rework our questions and interrogate our data in new ways (eg Akerstrom et al 2004).

~Styles of Qualitative Analysis

- ... There are no agreed rules or procedures for Qualitative Data Analysis
- ‘ ... there are a variety of methods available for qualitative data analysis ... Analytic choices are most often based on what methods will chime with your ...conceptual framework, what will generate the most sufficient answers to your research questions (Saldana 2011: 26; 89)
- Although there will be a stage dedicated to analysis, the pathways to forming ideas to pursue, phenomena to capture, theories to test, begins right at the start of the research... and ends while writing up.. It is an inherent and ongoing part of qualitative research (Spencer et al 2003: 209).
- Analytical strategies will depend on the conceptual framework for a study, the epistemological, theoretical and methodological glue that holds it together (temporal glue for QL research)

Qualitative Analysis: basic premises

- The purpose and outcome of data analysis is to...reveal ...fresh insights ...about the human condition (Saldana p89)
- The ability **to explain** is at the heart of the enterprise.... the explanatory power lies in addressing how and why questions about the meaning of substantive practices, experiences, values and identities – and understanding processes as well as outcomes.
- ‘Analysis is a challenging and exciting stage of ... qualitative research ... a very time-consuming process. It requires a mix of creativity and systematic searching, a blend of inspiration and diligent detection’ (Spencer at el. 203: 209)

Two Dimensions of Analysis

- Two key dimensions of the analytical journey
- 1. The management and organisation of our data – this is vital as the infrastructure within which analysis can then proceed. How do we systematically search, compare, sift, label, order, and condense (reduce) qualitative data for analysis? Instrumental dimension of data management and manipulation: analytic support: undeveloped for temporal analysis.
- 2. Intellectual process of generating insights and findings from the data – involves categorising and finding patterns in the data, through a process of description, explanation and interpretation – requires analytical skills and ability that can be honed and refined.

Creativity – Thinking analytically

- ‘it conjures up images of an unwieldy process characterised by lone researchers wallowing in paperwork’ (Henn et al Critical Intro to Social Research, Sage, 2006:243) .
- Traditionally seen as an obscure and esoteric process, shrouded in intellectual mystery:... Or largely haphazard, serendipitous process, with discovery falling from the evidence as if somehow by chance (Spencer et al 2003).
- An intuitive, tacit process of interrogation, dissection and synthesis which relies on conceptual skills, the ability to think analytically – to discern categories, themes and patterns in data and explore their interrelationships . No tool of the trade will do this for you.
- ‘Good research is not so much about good methods... It is about good thinking’ (Stake 1995: The Art of Case Study Research, Sage p19).

Thinking Analytically: categories/patterns/intersections

- Categories are ways of grouping, displaying and exploring data to bring them into conversation with each other (not bald comparisons – we may not be able to compare like with like) Task is to cluster seemingly connected entities in our data into discrete categories/units/themes that we can label and clearly identify; it is not perfect science, our categories will overlap, where data is complex and extensive
- Discerning patterns in the data to bring some semblance of order to complex phenomena (using inductive, deductive, abductive, retroductive strategies – Blaikie 2000).
- Patterns may be connections, similarities, differences, repetitions, continuities or changes over time, that emerge by contrasting data within or between cases in a sample, or across samples and datasets
- The categories, themes and patterns are the building blocks for analysis and interpretation. The task is to discern how these patterns and themes are inter-connected.



Thinking Analytically: intersections

- How do patterns and categories interact? Are there constellations of patterns: how do they influence each other, do they operate concurrently? Are there hierarchies between them? Is there a domino effect?
- E.g. The educational aspirations of young people: family support and parental background, peer group, school influence, natural ability and resilience, inculcation of work ethic. How do these intersect to create and sustain an academic identity?

Bringing Context into Analysis.

- **What is the status of the data?** Do data have an existence independently of the context in which, and methods by which they were produced, including the influence of the researcher and research process? If context is part of the data this affects what counts as data, what we need to take into account in our analysis
- **What metadata do we need?** Good quality metadata (data about data) that captures this contextual information - this aids cumulative analysis by the primary team – lest we forget our tacit knowledge - and at the same time, for re-use by others
- **What kinds of categories should we generate ?** how finely should we categorise through a coding frame? How can we categorise in ways that do not fragment the data and risk losing the context and meaning of an account?
- Holstein and Gubrium (2004)

Analytical scaffolding

- 3. Explanatory accounts:
 - higher phase: builds on description to discern/explain patterns in the data and how they come together to influence processes and outcomes of change. – - how and why things happen over time.
- 2. Descriptive accounts:
 - Mapping the range and diversity of each phenomenon. Thick description includes context and allows for generalisation and interpretation (Geertz The Interpretation of Culture 1973)
- 1. Data management:
 - Generating themes or categories – a coding frame containing conceptual and descriptive categories- through which data are labelled, sorted and synthesised

The process is iterative and involves working up and down the scaffolding (Ritchie, Spencer and O'Connor 2003)

QL Analysis... Is Temporal Analysis .

- **Time as the Medium for QL Research**

- Prospective follow up of a sample produces cumulative waves of data to bring into analytical alignment: we are analysing change or continuity through time. Waves of data are core to the analytical framework.
- The precise time periods between waves may be less significant for analysis, as we may want to capture processes occurring before and after fieldwork and what happens in between waves.
- The analysis calls for repeated readings, interrogating the data and asking different questions of change, and its absence. ...it employs the approaches used in cross sectional studies – exploring diversity, deviant, negative or atypical cases... exploring conceptual and thematic linkages, identifying patterns and constant comparison. But the multi-layered nature of QL research means that its reading is more complex (Lewis 2007; 551, 555)



Reading the Data

- Many different ways of reading the data
- Cross sectional, Repeat cross sectional, Case history, thematic, within case analysis, between case analysis.
- Material from each case is extracted and summarized schematically within and across interviews in order to facilitate these multiple readings of the data.

Reading the data through multiple dimensions

- Cross Sectional and Repeat Cross Sectional Analysis of key concepts and themes–
 - Discerning/interrogating patterns/themes across the sample after each wave of data Looking for change or continuities across the sample
- Case History Analysis
 - Construction and analysis of longitudinal case histories for each case in the sample over the duration of the study, building up biographical data over time
- Iteration:
 - Exploring intersection of waves and cases across the sample, showing dynamics of individual or collective lives in relation to others in the sample (Thomson and Holland 2003)
 - Iteration between Case history and repeat Cross sectional analysis is essential. The iteration occurs in varied and creative ways. They may or may not be given equal weight in the interpretation and presentation of findings (Thomson 2007; Lewis 2007).

Slicing time: temporal components of analysis .



Biography: individual or collective life journeys ; intersection of past, present and future, the analytical concepts of transitions, adaptations, and trajectories.

Transitions: a change from one status, situation or world view to another ; turning points, critical moments, life journeys (Thomson et al 2011; Chamberlayne et al 2002) ; enable a focus on how and why changes occur – on processes of change rather than outcomes

Adaptations: in what circumstances individuals may change their practices or how they adapt to changing circumstances - for example through pathways into poverty, employment or parenthood; and patterns of responses and strategies used across a sample for dealing with adversity

Trajectories: The broader unfolding of a life through varied states and transitions or particular pathways (Millar 2007)

Slicing time ...

- Conceptual relationships between different levels or domains of analysis: Biographical (micro, individual level of analysis, through to Historical (macro, structural level of analysis) mediated through collective, meso level of analysis
- Complex relationships between past, present future. Recursive interviewing generates data on how the past and future are reconstructed through the ever shifting present.
- The pace, velocity and scales of time: the long sweep of life histories against the contingencies of daily life (found in diaries, or day to day time horizons); the intersection of family time and clock time; how changes may be sustained or endured, eg. through short term or long term poverty;
- The intersection of time and place, or when and where as key dimensions of social experience - important in community based studies, or where we are comparing different settings for the research.

Tools to support analysis.

- How can we condense, or reduce, massive, unwieldy, messy discursive data to manageable proportions to enable the analysis?
- What tools might we use for these purposes? Eg. computer packages (Saldana 2003), thematic summaries, mapping devices, visual and graphic representations, narrative case profiles, that enable different ways into and readings of the data.
- A good tool will: enable systematic searching across whole dataset; allow data to be understood in context, without fragmentation; permit searching within and between cases; be flexible; be transparent to others.
- For the construction of detailed case profiles and histories see Thomson 2007 and Henderson *et al* 2012.

Framework:

A tool for descriptive analysis

- The central component is a thematic framework, which is used to organise data according to key themes, cases and emerging categories. Each study will have a distinctive thematic framework which evolves over time. (Ritchie et al 2003;
- These are captured and charted through a matrix or grid which is constructed for each theme. For QL analysis these can be constructed with cases running down the vertical dimension of the matrix, and waves of data running along the horizontal dimension. – this allows a thematic analysis of data by both wave and case.

Following young Fathers: Thematic analysis of pathways over time

- Each theme represents a policy related pathway experienced by the young men: family relationships, relationship with child, educational, employment, health, housing, youth justice (young offenders institutions: 'doing time'); professional support; fatherhood identities – these are the 'through lines' that we are using to structure our data collection and analysis (Saldana 2003).
- Example of housing theme, showing varied pathways over time across the sample.
- QL analysis: a challenging but creative and rewarding intellectual endeavour. Lewis (2007) suggests, we need more discussion and examples of the practical and intellectual processes involved – that is still the case today.

Key sources

- Akerstrom, M., Jacobsson, K. and Wasterfors, D (2004) Re-analysis of previously collected material. In Clive Seale, *et al* (eds.) *Qualitative Research Practice* London: Sage. 314-327
- Henderson, S., Holland, J., McGrellis, S., Sharpe, S., and Thomson, R. (2012) 'Storying Qualitative Longitudinal Research: sequence, voice and motif' In *Timescapes* Special Issue of *Qualitative Research*, 12 (1)
- Holstein, J and Gubrium, J. (2004) Context: working it up, down and across. In Clive Seale, *et al* (eds) 267-281
- Lewis, J (2007) 'Analysing QL research in Evaluations'. In Anne Corden and Jane Millar (eds) *QL Research For Social Policy* themed section of *Social Policy and Society* 6 (4) 545-556
- Millar, J. (2007) The Dynamics of Poverty and Employment in Corden and Millar (eds) 533-544
- Ritchie, J., Spencer, L and O'Connor, W.(2003) 'Carrying out Qualitative Analysis' in In Jane Ritchie and Jane Lewis (eds) *Qualitative Research Practice* London: Sage: 219-262

Key sources cont.

- Saldana, J (2003) *Longitudinal Qualitative Research: Analysing change through Time* Altamira Press.
- Saldana, J (2011) *Fundamentals of Qualitative Research* New York: OUP
- Spencer, L. Ritchie, J and O'Connor, W. (2003). 'Analysis: practices, principles, and processes'. In Ritchie and Lewis: 199-218
- Thomson, R (2007) The QL Case History: Practical, methodological and ethical reflections In *Corden and Millar (eds)*, 571-582.
- Thomson, R. and Holland, J. (2003) Hindsight, Foresight and Insight: The Challenges of QL research. in Special issue of *International Journal of Social Research Methodology* 6 (3) 233-244
- Thomson., R. et al. (2011) Critical Moments: Choice, Chance and Opportunity in Young People's Narratives of Transition In Coffey, A. and Hall, T. (eds) *Researching Young People*, London: Sage.