Qualitative Data Analysis With ATLAS.ti – A Case Study

Using ATLAS.ti To Research One Of The Largest Organizations in Europe – And Create Results That Anyone Can Understand

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ATLAS.ti is used around the globe for exciting research projects in a huge variety of contexts. While it is essential to inform our users of new product functions and of tips and tricks for working with our software, we also think the concrete practices and solutions of our users in conjunction with specific thematic content are likewise interesting and useful to the ATLAS.ti user community.

In this segment, we have the privilege of presenting an innovative research project from a member of the ATLAS.ti community. We would like to make project profiles a regular feature in our newsletter and warmly invite your contributions.

Make your work known and enrich the discussion in the greater CAQDAS community! (Further below, you can find information on how to get your project published in our upcoming newsletters.)

Research Topic

The project is entitled Conditions, Needs and Expectations of Coldiretti Retired People in the Veneto Region. Coldiretti is the main Agricultural Organization at the national level and one of the largest in Europe. The 80,000 Coldiretti retired people account for almost 10% of the total retired population in Veneto.

Research Design And Methods

As I did with my other previous research, I adopted a methodology based on mixed methods (Tashakkori & Teddlie, 2003). In this study, however, I insisted on introducing a visual approach from the initial planning stages.

As regards the quantitative aspect, a questionnaire was designed with a stratified sampling. In addition I used secondary data, originating mainly from Istat (Italian National Statistics Institute) and Eurostat.

The qualitative portion consisted of 30 interviews: 14 biographical interviews with rural retired people, and 16 semi-structured interviews with secretaries and directors of Coldiretti. Furthermore, ethnographic notes were gathered before and after every single interview. The visual methods were designed around photos of the environment and video footage of the interview situations carried out in the interviewees' homes.

The results have been made available not only in the "classic" report format, but also in more unique visual formats: a video entitled Ve la Raccontiamo Noi la Terra! (We Will Tell You the Story of the Land!) and a web site, www.raccontiditerra.it.

Material And Data

Three different types of data were used:

1. 1,302 subjects were identified from the stratified sampling and 1,086 completed questionnaires were returned.
2. 250,000 words coming from 30 interviews and about 15,000 words coming from the ethnographic notes were the core of the qualitative analysis.
3. 45-hours of video data shot indoors and outdoors: every house and its surroundings were filmed during each interview, as well as the farm, fields, farm machinery and equipment, and the surrounding countryside. The video data, involving only 14 rural retired people, was stored in mini-DV format. It filled 0.5 TB (terabyte) on a hard disk.

How ATLAS.ti Supported My Research

ATLAS.ti has been applied both to qualitative and visual analysis.

Two Hermeneutic Units were created. The first one contains 14 Primary Documents from the biographical

interviews. An inductive approach (bottom-up) organized in 3 sequential stages – open, axial and selective coding – has been used in order to code this category. The second HU was based on 16 PDs gleaned from semi-structured interviews. In this case, I decided to implement a deductive theoretical approach (top-down) for my coding, working with already fixed codes at least for the first level of descriptive coding. The ethnographic notes were added as comments in every single PD. In both HUs the same 9 families (e.g. work, relationship to the land, family) were created in order to aggregate the 135 codes that remained after several processes of recoding, renaming and deleting.

For the analysis, in both HUs, the capabilities of the Network View Manager were essential: It facilitated the development of both theoretical and inductive models in order to create maps composed of codes, memos and, subsequently, quotations. In every HU, 9 Network Views reflecting the 9 previously created families were created. At this stage, the type of link between objects mainly consisted of code to code relations.

Using ATLAS.ti To Create A Documentary

I used ATLAS.ti in an innovative way when I created the script of the video. Any video documentary, whatever the subject might be, requires a script written before any footage is shot, as filming follows the script and the filmed material is edited later. In this case, this "classic" order could not be observed for the simple reason that it was impossible to know in advance what would happen during the filming, what would be important, and what should be included in the documentary. So it was necessary to wait for the results of the analysis.

The first obstacle concerned how to manage one half terabyte of data in a video format. There were two options:

1. convert the video to a much lighter format, such as .avi or .mov
2. use the HU with 14 PDs already coded, mapped and analyzed

The latter seemed to be more feasible, and the 9 families previously identified could be considered chapters in a new HU containing the same objects. Just save as. But the previous analysis with the support of the Network View Manager was not perfectly suitable because it originated from 900 quotations aggregated in 135 codes. In terms of length, 900 quotations equals almost 6 hours of video.

So the second obstacle concerned how to cut down the 900 quotations "scientifically." The new HU was completely transformed. The 9 families and the 135 codes were maintained while quotations were reduced to 150. At this stage, the same code could be present in different Network Views. For this task, the performance of the Network View Manager was still adopted. Inside every single conceptual map, each code was expanded using the "import neighbors" function. The process of deleting followed this path: first, in every code only 1 quotation for each PD was to be considered. Then, after merging the 9 maps, all duplicate codes were removed. At the end, 135 codes and quotations remained, organized into 9 Families/Network Views.

Building The Sequence Of Quotations & Clips

If, while reading a report or consulting a website, you can easily jump from one chapter or page to another, the structure of a video must be rigorously sequential. Each Network View was purified, removing from view all codes (and related relations) and keeping only quotations. Then a hierarchical conceptual scheme was drawn and the connections between quotations were built using Hyperlink Relations. With all the clips perfectly organized, editing with Macintosh and Final Cut could begin.

My Working Hypotheses And Interesting Research Results

The website www.raccontiditerra.it aims to make the results of this study available to the widest possible audience; the video makes these results available to a part of my target audience that would never dream of reading a report or opening an internet browser. This latter group includes the Coldiretti retired people themselves, who are the fulcrum of this study. And even though a video is as methodologically rigorous and valid as any written report could be, it seemed to be the best way of showing the results of my study to the people who gave me such precious information.

- Dario Da Re