Researching and engaging with the computer-assisted qualitative data analysis software ATLAS.ti

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1 Abstract

Computer-assisted qualitative data analysis software (CAQDAS) has been around for well over two decades, and today there is a great variety of CAQDAS options available for each researcher's choosing. As CAQDAS packages have continued improving, demand for and interest in CAQDAS has only been growing (Este, Sieppert, & Barsky, 1998; Lee & Esterhuizen, 2000; Odena, 2013; Siccarma & Penna, 2008; and Silver & Rivers, 2016). At first glance, learning how to use a new CAQDAS may seem straightforward because there are many free learning resources, such as manuals, guides, video tutorials, and more. While it is relatively easy to figure out what the different buttons of a software do, it seems that new users struggle with figuring out when and why a certain tool should or should not be used. It can be tempting to try out a new CAQDAS and explore the different features – such as creating word clouds or charts – and want to incorporate as many different tools and outputs as possible in the final report. However, there is also the risk of getting carried away with doing all the things that the software can do rather than focusing on answering the research question of the actual study. In other words, learning to effectively use CAQDAS requires more than just understanding how to use the different functions, but researchers also need to know the methodological significance of the different analytic tactics, the "why" behind each tool. Given the growth of the "digital native" generation that is comfortable with pervasive technology-use, more and more qualitative researchers may want to learn how to use CAQDAS (Paulus & Bennett, 2015), but guidance may be crucial for facilitating effective CAQDAS practices for rigorous qualitative analysis.

This paper provides practical tips and tricks for applying qualitative analytic tactics to the use of ATLAS.ti (and these guidelines can also be applied to any other CAQDAS). The analytic guidelines stem from a foundational model for qualitative data analysis that can be applied to a variety of qualitative research projects. This model consists of four iterative cycles: the Inspection Cycle, Coding Cycle, Categorization Cycle, and Modelling Cycle (self-identifying citation removed). The aim of this article is to offer clear guidelines on how researchers can use ATLAS.ti throughout the analytic cycles of qualitative data analysis. Analysis begins with basic quantitative inspection of the data, followed by multiple coding cycles that begin with inductive approaches and move towards deductive strategies, then the codes are grouped and categories are drawn out, which leads to the development of the final conceptual framework that synthesizes and corroborates previous knowledge with the findings that emerged from the data analysis. Memo-writing is incorporated throughout the analysis process to foster reflexive and critical thinking (Levitt, Kannan, & Ippolito, 2013; Mitchell, Friesen, Friesen, & Rose, 2007). This paper presents concrete guidelines on how each of these analytic tactics can be adopted within ATLAS.ti. Specifically, during the Inspection Cycle, researchers may take advantage of the word clouds and auto-coding in ATLAS.ti. For the coding cycles, researchers may use open coding, in vivo coding, and coding by list. For the categorization cycles, the use of groups and networks is emphasized, and in the final modelling cycle, researchers can finalize their networks and also use the different advanced analysis tools to query their data in different ways, such as the Query Tool, Code Co-occurrence Table, and Code-Document Table.
Thus, this paper shows how ATLAS.ti can be used throughout the entire qualitative research process, from organizing and querying data to elaborating reports and visualizations of the findings. Although this paper focuses on the use of ATLAS.ti, these practices can likewise be applied to different CAQDAS packages (and with the development of the universal data exchange format QDPX, moving among CAQDAS packages is now easier than ever; “The REFI-QDA Standard,” 2019). Although no CAQDAS will “do the analysis” on behalf of the researcher, it can certainly facilitate organization, transparency, and the overall integration of the different analytic aspects. This paper aimed to provide practical guidelines for researchers all around the world who wish to effectively use CAQDAS for rigorous qualitative research.

References


