

## **Advice for using data analysis software**

**Raymond C. Maietta, Ph.D., President, ResearchTalk, Inc.**

I first used qualitative software when I was analyzing my dissertation research in the mid-1990s. I still use it when I analyze my own qualitative work and in my consultation work with clients. I am President of ResearchTalk, Inc., a qualitative research consulting and professional development company. My use of qualitative software is unique—or so I've been told. I think my story of how I approach the use of software might help others understand better the relationship between a qualitative researcher and qualitative software and offer advice for their qualitative projects.

### *My use of software*

My strategies for integrating qualitative software into my analysis plan are project dependent. I use it when I begin my initial review of text and as the analysis progresses, but do not follow a consistent formula for the degree of engagement with it across projects. My qualitative analysis work sessions vary according to the phase of a project. Early on I am marking key sections, writing notes and doing tentative diagrams. As projects progress, I consider how ideas bridge to reveal powerful stories and may use diagram tools, filter tools and category retrieval functions more extensively. In between I may build, apply and adjust an organizational scheme, writing notes along the way. My notes declare that I have read something brilliant and suggest next steps. Sometimes they allow me to make fun of how what I thought was brilliant was not a big deal after all.

A 'must have' qualitative software function for any project I work on is the ability to isolate key data segments as computer objects in their own right. I use the "quotation" in ATLAS.ti and highlighted data segment in MAXQDA throughout a qualitative project to feature and engage the words in my transcripts of interviews and observations that confirm and challenge what my colleagues and I learn. Starting with data segments invites qualitative memoing, diagramming for discovery and potentially categorizing the data into attributes and codes.

### *The relationship between a qualitative researcher and qualitative software*

At this point in the history of qualitative software, any pro or con is related to the choices the user makes during the analysis process. There is nothing about software that makes an analysis more or less powerful, and, other than lessening the administrative burden of data management, there is little that enhances thoughtful engagement with data.

An adept computer user can and should be able to smoothly execute a qualitative analysis plan with or without software. It is a management tool. "Analysis" functions only work because you have marked the data in ways that facilitate this process. You can "filter" a dataset to only interviews with women if you categorize the documents as female. You can then read everything women say about "fulfillment" and "career" if you have coded data to these topics. The software cannot tell you how women speak about career fulfillment unless you set it up to

do so. Certainly, the administrative benefit of not having to design and manage a storage and retrieval system frees intellectual energy for the analyst. However, software plays little role in the movement toward theoretical assertions.

### *Project Advice*

To maintain control of my qualitative analysis I always apply the following tips:

- I develop and document a data management plan before I begin using qualitative software. Losing data is easy. It is less likely when I pay attention to how to avoid doing so from the onset of a project.
- I remind myself to review and evolve comments and memos I write during analysis. Be careful—it is easy to write a note and forget it. The ideas that cross your mind when you are in the throes of analysis offer insight that is otherwise inaccessible.
- Diagrams should be used as tools to “think aloud” rather than only as presentation tools. Draw things out. Display your reactions and thoughts. I don’t even consider showing most of my diagrams to anyone and rarely create a diagram that will appear in a final presentation; maybe 1% of what I diagram winds up in any presentation.
- Do not over-rely on code and retrieve functions. I think a lot when I review qualitative data. I think very little when I code. Memos and diagrams help chart and make “visible” the thoughts that my data review inspires. If I can read it and see it, I can use it to keep my analysis moving.

When writing about how to use literature in a social science project, Howard Becker (1986) advises “Use the literature, don’t let it use you.” To borrow his brilliant advice: “Use qualitative software, don’t let it use you.”

Becker, H.S.

1986. *Writing for social scientists*. The University of Chicago Press.