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Support for Computer-Assisted Qualitative Data Analysis Software in ARL libraries

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Abstract

Academic libraries are filled with niche support services that are unique to their primary clientele. While rarely taught to librarians in a formal academic setting, the support of Computer-Aided Qualitative Data Analysis Software is one such niche that appears in academic libraries across North America. But how common is it, and at what level is support offered amongst members of the Association of Research Libraries? This paper attempts to answer this question.

Keywords

CAQDAS, QDA, academic libraries, qualitative data

Introduction

Qualitative data unveils the rich tapestry of human experiences, capturing the emotions, stories, and nuanced insights that numbers alone can never tell. Academic libraries are uniquely positioned to support scholars using qualitative data, as they operate at the crossroads of disciplines, bringing together diverse users, resources, and services that reflect the multifaceted ways in which knowledge is discovered, shared, and applied. Qualitative data, generally, can be described as the non-numerical information that researchers collect through interviews, focus groups, and observations (Qualitative Data, NNLM, n.d.). This type of data can be crucial for understanding complex social phenomena, and over the past several decades the software available for analysing them have become increasingly sophisticated. I believe an academic library is a logical choice to offer support for Computer-Assisted Qualitative Data Analysis Software (CAQDAS) for the following reasons:

1. Research support: Academic libraries are already central hubs for research support on campus. They often assist with various aspects of the research process, making Qualitative Data Analysis (QDA) software support a natural extension of their services.
2. Interdisciplinary nature: QDA software is used across multiple disciplines in social sciences and humanities. Libraries serve all departments, making them well-positioned to support diverse user needs.
3. Technology infrastructure: Academic libraries often have robust IT infrastructure and staff familiar with various software tools, enabling them to host and support QDA software effectively.
4. Expertise in information management: Librarians are skilled in organizing and managing data, which aligns well with the data handling aspects of QDA software.

5. Neutral space: Libraries provide a neutral, cross-disciplinary environment where researchers from different departments can collaborate and share knowledge about QDA methods.
6. Existing training programs: Many libraries already offer workshops and training sessions on various research tools, making it easy to incorporate QDA software instruction.

In 2022 Liz Cooper published an article describing how she came to develop a qualitative data analysis support structure at her university library and argues that this should be a common role for academic libraries (Cooper, 2022). Her article described my journey so accurately that I felt compelled to examine the website of every member of the Association of Research Libraries (ARL) to learn how prevalent this role and service is. Were we outliers, or two among many?

Because this is a role that I spend a fair amount of time on, I was specifically interested in learning whether other academic libraries support the use of Computer-Assisted Qualitative Data Analysis Software (CAQDAS) on their campuses. This is an exploratory study seeking to determine how many members of the Association of Research Libraries offer support, and at what level, for CAQDAS.

Literature Review

Several papers have explored one aspect or another of qualitative data support within academic libraries.

In a groundbreaking book chapter, Mandy Swygart-Hobaugh analysed job postings for social sciences data librarians in North America, surveyed social science librarians, and examined 53 research guides describing qualitative data support services offered by social science librarians specifically in the United States. One of the primary goals of that research was to compare the numbers and roles of librarians in supporting qualitative and quantitative data. As expected from earlier research on the subject, quantitative data support services were far more prevalent than qualitative. Of the 53 research guides that were identified, “eighteen (34.0%) were general qualitative research guides with no discipline specified, fifteen (28.3%) were created for specific qualitative methods courses, eleven (20.7%) were dedicated computer assisted qualitative data analysis software (CAQDAS) guides, eight (15.1%) explicitly targeted individual or multiple disciplines, and one (1.9%) was a data management guide with recommendations on managing/sharing qualitative as well as quantitative data” (p.170). “Among the eleven dedicated computer assisted qualitative data analysis software (CAQDAS) guides, five (45.5% of 11) indicated that librarians were available for consultations or training workshops on the software, while the remaining six (54.5% of 11) did not explicitly indicate as such (p.171).” One of the major conclusions of her work is that “both the survey results and the online research guides suggest that very few librarians are offering CAQDAS support” (p. 172). She concludes with recommendations for four key areas in which social sciences librarians might expand their qualitative data support services, including Qualitative Data Analysis, Qualitative Data Discovery, Qualitative Data for Teaching and Learning, and Qualitative Data Management and Sharing (Swygart-Hobaugh, 2016). My research focusses on the first of these, with an attempt to determine how many Association of Research Library members are offering support for Qualitative Data Analysis, and more specifically, which services they offer.

Recognizing that this knowledge is not typically taught as part of the curriculum leading to a library degree, Catherine Hansman describes strategies and methods for teaching qualitative research methodology to librarians and novice researchers, a necessary step along the path of being able to support CAQDAS within the academic library. She also takes time to examine various research methodologies that should be introduced to those seeking to understand the nature of qualitative research and discusses which learning theories prove to be most effective in teaching the discipline (Hansman, 2015).

Librarians who already offer support for QDA have noted that it's often difficult for students to learn where to go to receive support. Cain et al. explored "the discoverability of qualitative research support services" on a sample of academic library websites (p. 1). In essence, this was a usability study to determine how many libraries were offering services, but of the ones that were, what are the characteristics that make discoverability easy or hard. For this study, the authors sampled 95 libraries at public and private institutions in North America. They worked primarily from the list of the Association of Research Libraries, but did not include them all, and added 'a few' libraries that are not members of ARL. The authors determined, "It is hard to find qualitative services on the websites of most libraries in our sample." Perhaps many of these libraries do not provide these services, which would be in line with the findings of Swygart-Hobaugh's (2016) study. Yet, in some cases, we eventually found mention of qualitative services offered by the libraries after trial-and-error searches using various search terms. We often found these services by entering the brand names of popular qualitative software, such as NVivo, ATLAS.ti, Dedoose, and MAXQDA. Approximately half of our sample references at least one qualitative software brand. Libraries mention, for example, that a brand is available on campus computers and/or that staff are available to provide software training. (p. 3) (Cain et al., 2019). These findings informed my approach when searching the websites of all the ARL libraries.

Quantitative data appears to be a more familiar subject to many libraries, especially those serving in roles of data librarianship, including research data services. Hagman and Bussell interviewed 13 "academic librarians about their understanding of data literacy, qualitative research, and academic library infrastructure around qualitative research" (p.1). As did all the others in this section, they note the nearly ubiquitous nature of support within libraries for quantitative data, while support for qualitative data and analysis is much less frequent. They conclude that, "Academic libraries must consider how their approaches to data literacy and research data services can serve to limit or expand the notion of what counts as research, and even who can bring their research knowledge to the scholarly conversation. Developing services that are ostensibly open to all library patrons but ultimately only serve those whose research uses only one type of data sends a message about what kinds of research are valued and worth supporting" (p.9) (Hagman & Bussell, 2022).

CAQDAS is certainly taught in workshops within libraries, as described by Røddesnes et al. (2019), (Cooper, 2022), and (Kang & Sinn, 2024). The first two discuss the development of CAQDAS workshops at two specific institutions, while the third offers a survey of technology workshops offered by 43 American libraries, a small number of which include CAQDAS. Michalovich describes introductory NVivo training workshops and consultations provided by one ARL member library in Canada (Michalovich, 2022).

None of these reports, though, provide a clear picture of how many libraries in North America offer such support.

The aforementioned seed article by Cooper (2022) chronicles both the birth of qualitative data support within academic libraries, and, through personal narrative, makes the case for why the library is a natural fit for supporting qualitative data. She also provides examples of different levels of support that can be offered and makes suggestions for how and where librarians can bootstrap their knowledge to be able to begin offering support for qualitative data analysis.

Methods

I visited the websites of all 128 Association of Research Library (ARL) member libraries between August 19-23, 2024 (List of ARL Members — Association of Research Libraries, n.d.). As discussed by Cain et al. (2019), it is not often easy to determine whether CAQDAS support is offered within a particular library setting. They found that approximately half of the sites in their study mentioned a QDA product by name, and there was no ‘universal’ acronym used to discuss the concept of CAQDAS on the sites. In addition, that study found that often, “information about qualitative services was isolated from other data services pages on the library website—for example, the information might reside on a LibGuide for a course or discipline” (Cain et al. , 2019, p. 4).

Forewarned by these findings, I employed several search strategies to gather results. When available, I used a ‘search this site’ choice on the library’s home page to search for any of the following terms, (NVivo, QDA, ‘Qualitative Data’, ATLAS.ti, MAXQDA, Dedoose). Several sites did not appear to include results from Springshare’s LibGuides platform (LibGuides - Content Management and Curation Platform for Libraries, n.d.) within their results, so I also examined each site for the existence of a ‘Research Guides’ or ‘Library Guides’ section, and, if found, those pages were also searched for the same terms. Finally, if a ‘search this site’ option was not available, I used Google’s site: operator to search for each of those terms against a specific site (e.g. MAXQDA site:library.university.edu). When any result was found, I made a closer inspection of the result to determine whether the library offered support for the use of qualitative data analysis software. If so, at what level, or if they were simply acknowledging the existence of these tools, either generally, or elsewhere on campus.

Cooper (2022) suggests libraries can provide tiered levels of support for qualitative data analysis, depending both on the level of expertise of the supporting librarian, and the level of need perceived at the institution. Summarizing her tiers,

- Tier 1: provides a bibliography of key methods books and articles at your library.
- Tier 2: research guide that discusses different qualitative research methodologies and includes tips about searching in library databases for articles that utilize qualitative methods.
- Tier 3: includes software-specific documentation.
- Tier 4: offers instruction and /or consultations on the use of qualitative data analysis software.

With these tiers in mind, I also categorized each page I found by Tier. An example search workflow follows.

Brown University Library (<https://library.brown.edu/>) offers a search box on their home page. Making sure to choose the option to search the Library Website (not the default), I searched for the phrase, “qualitative data”, which yielded many results. Had there been none, I would have moved on to the other terms in my search strategy. One of the results led directly to a LibGuide for NVivo (Wilkinson Saldaña, n.d.). Upon visiting that page, I learned that Brown offers a site license for the software, and that a team of librarians at Brown is available for consultations to help “evaluate NVivo / qualitative coding for your project, discuss automation features, etc.”. There are links to resources to learn more about how to use the software, including traditional literature licensed by the campus, and a Brown-specific workshop called “NVivo Essential Training” has the following description: “This Workday Learning Course explores how to leverage NVivo for collecting, organizing, and analyzing non-numerical research data, such as images and text. The course covers key terminology, importing documents, using nodes (containers for NVivo data), coding to organize the data, tools to analyze data, and exporting a summary of your coding structure to Word and Excel for sharing with others.” Finally, I looked back at the initial website search results and saw that there was a separate LibGuide that discusses Qualitative Methodology more generally (*Qualitative Research - Resources for Research Rigor & Transparency - Library Guides at Brown University*, n.d.). Taking all of these resources into account, I scored the library at Brown University as offering Tier 4 support.

Results

Of the 128 members of the Association of Research Libraries, 43, or 33%, offer some form of support for Qualitative Data Analysis (QDA). While this is a smaller number than the 53 research guides that had been identified by Swygart-Hobaugh in her 2016 study, her sample came from academic libraries of all sizes across North America. Of the 43 ARL libraries that include information about QDA, all of them offer some form of web-based support, most often in the form of a LibGuide.

Nineteen libraries offer Tier 4 support for qualitative data analysis, which includes either workshops, consultations or one-on-one training sessions. Eighteen of the libraries offer Tier 3 support, which consists of general information about qualitative data analysis, as well as at least some software-specific guidance. Three libraries each offer Tier 2 or Tier 1 support of QDA. One library offers regular workshops on the use of NVivo, but otherwise provides no web-based research guide support. See figure 1.

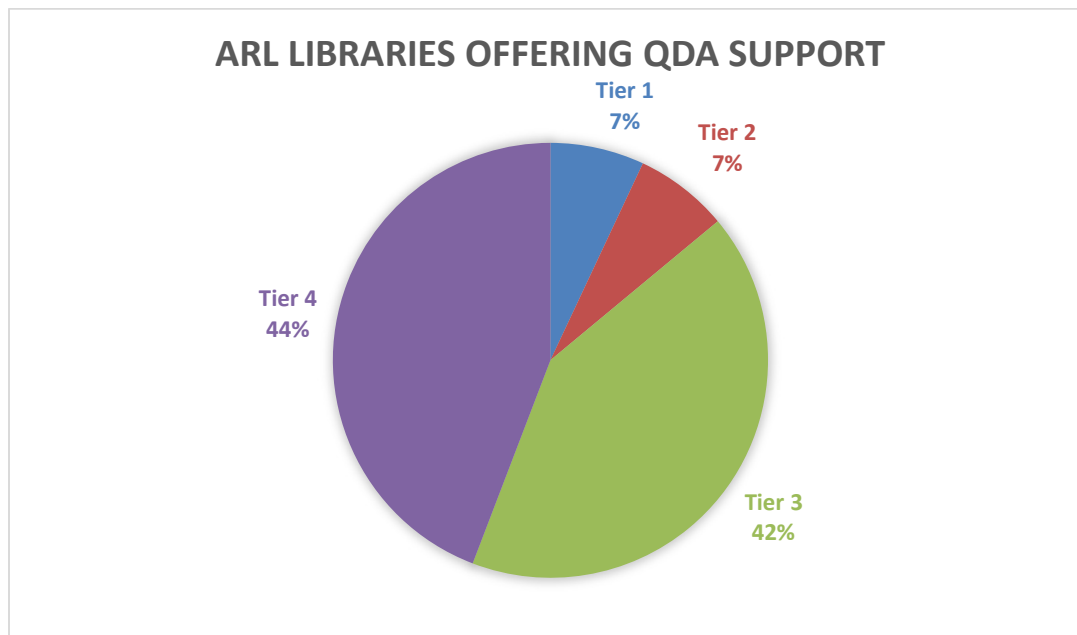


Figure 1 - ARL Libraries offering QDA Support

NVivo is by far the most frequently supported CAQDAS title, being mentioned by 37 libraries. ATLAS.ti, MAXQDA, and Dedoose all appear to be supported by at least one library. Taguette, an open-source tool, is mentioned by 4 libraries. These frequencies fall in line with the literature in other fields using CAQDAS (Woods et al., 2016), (Paulus, 2023), (O’Kane & Smith, 2022).

Discussion

As pointed out by Swygart-Hobaugh in her research (2016), “A recurring theme was that data support services should be guided by the local needs of the institution’s researchers, and thus the primary focus for data support should be either quantitative or qualitative, depending on the predominant need” (p. 167). The fact that CAQDAS support is offered at only one third of ARL libraries may be evidence that this type of support is not required at every institution, though that seems difficult to believe for the schools that make up ARL membership. Or it may be evidence of a continued lack of expertise amongst librarians, as suggested by Hansman (2015).

Many of the campuses in which ARL libraries reside do offer support of QDA software through their Information Technology, or other departments. However, since I am interested explicitly in library support, I have not included those campuses in the numbers above. It may be useful for future studies to examine CAQDAS support across the entire institution, rather than limit to library support.

The fact that of the libraries that do support qualitative data analysis, a large majority of them offer support at a high level suggests that there is a strong level of expertise within ARL libraries. For those at institutions currently lacking this expertise, there is a solid core of librarians who could teach or be tapped for peer learning opportunities.

Conclusions

To revisit the original question of learning whether librarians supporting Computer-Assisted Qualitative Data Analysis Software are outliers, the data suggest that, at least amongst ARL-member libraries, we are somewhat, but not entirely. Librarians wishing to offer these types of services have colleagues upon whom they can draw or could explore other departments on campus to steer students towards.

Future studies could expand the scope of this survey to other geographies or types of libraries. Perhaps support of CAQDAS is more prevalent outside of North American research libraries. Perhaps it clusters in the libraries of universities supporting specific disciplines. Or, perhaps the above results are accurately indicative of yet another niche service offered by your friendly neighborhood librarian.

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Endnotes

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