Qualifying for Services: Investigating the Unmet Needs of Qualitative Researchers

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Abstract

This study investigates the needs of qualitative researchers and the ways in which libraries may address some of those needs. Using qualitative interview methods, we conducted 10 semi-structured interviews with individuals from two stakeholder groups: researchers (faculty and doctoral students) and librarians. Among the variety of needs that emerged, ranging from methods training to identifying sources of funding, we discuss two implications for library practice in detail: 1) the need for depth in library resources on qualitative methodology and 2) potential ways for the library to support communities of practice around qualitative research tools and methods.

Introduction

Though libraries have built, enhanced, and expanded service offerings to support scholarly needs across all stages of the research life cycle, with particular emphasis on research data management, these services have tended to privilege quantitative approaches.[1] Similarly, researchers are likely to encounter greater support for quantitative methods than qualitative ones elsewhere on campus and in dialogue with external funders.[2]

Developing services that attend to the needs of qualitative researchers will enable libraries to provide more inclusive services that intersect with and support a greater range of interventions and which encompass the research life cycle comprehensively. Through outreach and assessment activities, libraries can learn more about the needs of qualitative researchers across disciplines and develop services in alignment.

Through a series of semi-structured stakeholder interviews conducted at the University of Michigan, this study provides insight into unmet needs of qualitative researchers and corresponding opportunities for library engagement. Analysis to date has highlighted opportunities for libraries to enhance their support for the development of methodological competencies. In particular, the interviews suggest that libraries may enhance support for communities of practice and lend more focused attention to the role of collections in supporting methodological learning.

Literature Review

According to recent studies, qualitative research is on the rise globally, especially in the social sciences and interdisciplinary studies.[3] Though qualitative research is not new, recognition of its value in elevating stories that cannot emerge from quantitative methods alone has gained traction in recent years.[4] Consequently, many disciplines have observed increased interest in, and adoption of, emerging qualitative and mixed methods approaches. [5]

As a result of the rise in popularity of qualitative research, some fields have experienced a corresponding increase in novice qualitative researchers. The literature suggests that these new

researchers face many challenges in obtaining sufficient training, services, and support, even when they receive some training through methods courses. For example, Lena W. Carawan et al. developed an interdisciplinary qualitative analysis course and reported that student encounters with the "epistemology, ontology, and methods of qualitative research" were "disorienting and difficult" while Eleanor Mattern et al. found gaps between the methods training that doctoral students received in the classroom and the demands of their research projects, across methodologies.[6]

Though libraries have developed services to support all phases of the research and scholarly communication life cycle, these services have tended to center around quantitative methods and approaches more so than qualitative or mixed methods, a characteristic that is especially true for the research data management services that libraries have developed over the last decade.[7] Moreover, the services that libraries do provide do not tend to include support for methodological learning.

While the library's potential role in supporting methodological learning remains under-explored in the literature,[8] there is evidence to suggest that libraries may serve as valuable partners or facilitators for the community of practice model of peer learning and support.[9] Several studies recognize the community of practice model as distinctly valuable for advancing the skills and competencies central to qualitative approaches.[10]

Communities of practice convey disciplinary norms, foster knowledge and skills, and provide intellectual scaffolding. Though they have generally been portrayed as disciplinary, with the communication of disciplinary norms considered essential to their formation, less formal cross-disciplinary communities of practice based on methodologies have also emerged, as represented in the studies cited above. Communities of practice have also served as vehicles for mentorship, as noted by Jean Lave and Etienne Wenger, who describe how laboratory based mentoring of novice community members contributes to "the development of knowledgeably skilled identities in practice and to the reproduction and transformation of communities of practice."[11] In this model, novices are given increasing responsibility and independence over time, sometimes progressing from observing to supervising, in order to replicate and advance the community.[12]

In 2016, Joan Eakin reported that communities of practice formed a "system level" strategy for qualitative research, finding that remaining within a discipline allowed qualitative researchers to consult "like-minded researchers for support, concrete assistance, and a sense of legitimacy and belonging."[13] However, Andrea Malone et al. reported a sharp increase in interdisciplinary work and connected it to researchers' ability to broaden skills and techniques through collaboration.[14] Regardless of disciplinary boundaries, the community of practice literature tends to emphasize community, both in its capacity as "social endeavor" and its unique role in knowledge formation as well as researcher development.[15]

Several studies suggest that library presence within and library facilitation of communities of practice can fill a gap in training for novice researchers. In their work with new doctoral students, Kathryn Roulston, Judith Preissle, and Melissa Freeman found that working with other scholars and librarians to better understand the extant body of work helped students not only understand the contribution of their work, but also allowed new topics of interest to emerge.[16] Similarly, Andrew S. Gordon et al. have attributed the success of their video data repository to intentional collaboration and information sharing among librarians, information scientists, and disciplinary researchers.[17] Ann Green and Myron Gutmann have argued that reciprocal partnerships formed around academic support roles help to make both interdisciplinary and domain-specific

expertise available throughout the data lifecycle.[18] Roger and Halas previously reported similar findings, noting that collaboration with libraries for training and workshops not only strengthened research communities across disciplines, but helped to foster communities of practice between researchers and library support services.[19]

Through a needs assessment for qualitative researchers, this study will contribute to a growing body of knowledge about communities of practice with insight into the library's role and ability to develop and align relevant programs and services.

Methodology

As noted in the literature review, support for qualitative research is often lacking in academic institutions and libraries have played various roles in supporting the information, analysis, and technology needs of qualitative researchers. We asked the following research questions.

- What are the needs of qualitative researchers and how do these intersect with the library?

- How can the library support communities of practice?

In order to investigate the needs of qualitative researchers and the services provided by the library on our campus, we employed a qualitative interview methodology. We selected a qualitative approach because this was an exploratory study and we wanted to understand the underlying motivations and sensemaking of qualitative researchers in the context of campus resources and services. Although we knew of the general needs of qualitative researchers from the literature, we had little knowledge of the specific needs within the context of our university. Thus, a qualitative approach enabled "the collection of data in a natural setting sensitive to the people and places under study, and data analysis that is inductive and establishes patterns or themes."[20] We were also planning a larger scale survey of all qualitative researchers on campus and viewed the interviews as a way to identify themes and areas for questioning that were not present in the literature. John W. Creswell recommends this "sequential exploratory strategy."[21] Each data collection activity builds upon previous data collection and the combination of interviews and a survey collects data that addresses issues of both breadth and depth in the target population.

Participant selection

We identified two stakeholder groups: qualitative researchers and librarians. Among the qualitative researchers, we were interested in understanding whether individuals in different career stages (e.g., faculty and doctoral students) had different needs. Therefore, we sought out participants from each of these researcher groups. Librarian participants were selected by virtue of their positions and job responsibilities. They either worked with departments or units on campus with qualitative researchers or offered services in the library which were perceived to be of use to qualitative researchers.

Researcher participants were selected in several ways. We began with a convenience sample of known faculty and graduate students. Using a snowball methodology, we asked the participants to recommend other qualitative researchers who we might interview. In selecting researchers to interview we tried to balance participants from different academic disciplines and those who worked with different types of qualitative data (e.g., observations, interviews, video)

from different sources (e.g., field studies, social media sites, etc.). This article reports on an initial set of ten interviews: four faculty, three doctoral students, and three librarians, all from social sciences fields.

Data collection

We developed two interview protocols, one for librarians and one for researchers (faculty and doctoral students). Questions were developed after consulting the literature and based on responses during the pilot interviews. Many of the questions were unique to each stakeholder group but there were some overlapping questions through which we elicited answers on the same topic (e.g., qualitative analysis tools) from both groups.

The protocol was semi-structured, so additional questions were added in response to participants' responses. For the researchers, we asked questions about their area of research and the research questions motivating their work, the methodological approaches used, the types of qualitative data collected, how and when their research processes intersected with the library, how they gained expertise in conducting qualitative research, where they went for support, their greatest needs as a qualitative researcher, and questions pertaining to the different research stages. We asked the librarians questions pertaining to their role in the library, frequency and nature of interactions with faculty and students engaging in qualitative research, when in the research lifecycle they engaged, the types of questions faculty asked, and the librarian's familiarity with qualitative methods. These hour-long semi-structured interviews took place in participants' offices or meeting rooms on campus.

Data analysis

All interviews were recorded, transcribed, and checked. We then imported the transcripts into NVivo qualitative analysis software for coding. We developed the code sheet using two approaches. We began with themes from the literature and then added codes inductively from the interviews as the coding process evolved. We developed a codebook with definitions. Two team members initially coded the same transcripts and calculated interrater reliability (IRR). The coders discussed each transcript during the interrater reliability process to reach agreement on the final coded transcript. After several rounds of iterative coding and discussion, the two coders reached an IRR of 72.4% using Scott's Pi. Subsequently the coders met periodically to nominate new codes and discuss coding questions.

Limitations

There are two major limitations to this research. First, since the research project is early in the data collection process the number of interview participants is limited and we have not reached saturation in the emerging themes, so results are preliminary. Second, the distribution of researcher participants does not cover all disciplines employing qualitative research techniques. We aim to address these as we continue this study.

Findings

Our findings will refer to the anonymized interview participants with their participant codes; each code includes a participant type indicator and a unique sequential number. Participant types are doctoral students ("D"), librarians ("L"), and faculty ("F").

General Needs

Analysis of the interviews highlighted a diverse array of disciplinary, methodological, and resource-based challenges faced by qualitative researchers on our campus. Interviewees revealed varying levels of engagement between qualitative researchers and librarians and varying attitudes toward the perceived presence or potential value of library services. While some interviewees indicated that they were likely to consult the library for assistance with coursework, as distinct from research, others were simply unaware of the services and resources offered. Researcher F01 did not know what the library offered them as a faculty member and also did not recognize any potential value, stating: "...being a faculty member, you're already kind of a content expert in your area, so I don't really depend on anyone for content advice." Multiple faculty members and librarians acknowledged the library's potential as a resource for students in need of research training. As noted by L01: "I think with graduate students, that's where we really have the gap...students need someone to guide them in research methods...they need kind of like a consultant and that is where the hole is...because there isn't somebody in the library who can do that." Overall, interviews demonstrated perceived value to novice researchers of several forms of instruction, including literature review workshops, database workshops, and software classes.

Some interviewees recognized the potential value of library resources and services for themselves and their students alike, even if they demonstrated lack of awareness of specific existing services. A predominant need expressed in the interviews was for workshops on qualitative tools, methodologies, and data management. F03 described inconsistent levels of library support for the use of qualitative software tools. One doctoral student in the middle of field-work, D02, described confusion identifying the library's available workshops: "I'm sure they are offered as well, and maybe I'm just not seeing them because I'm a little bit disconnected right now." Other researchers echoed this theme and described their lack of specific knowledge of library services while acknowledging these services' potential benefits. Many participants, including F03 and L02, discussed the need for instructional support for specific qualitative data analysis and data management tools, such as NVivo, Dedoose, and ATLAS.ti. Librarians (L02 and L03) pointed to the breadth of tools and methodologies available to qualitative researchers as a challenge to providing support.

The interviews revealed diverse attitudes and varying levels of confidence surrounding data management plans and practices. While disciplinary and departmental conventions often inform protocol for data management and data storage, researchers discussed their efforts developing systems and practices to fit personalized needs. These individualized data management plans described by interview participants (F01, F03, D02) included everything from Excel spreadsheets to external hard drives to cloud based storage, such as Google Drive and Box. Many participants described valuing their colleagues' insights into data management practices and some shared that they had simply not thought very deeply about data management. Others described unfavorable outcomes, such as the "massive data management problems" that F03 experienced, following the migration of their data from one institution to another and resulting software licensing issues.

Collections and Tools

The interviews suggested that the state of library collections may contribute to challenges faced by qualitative researchers, especially in cases where libraries hold limited copies of methods texts. Researchers described a scenario in which high-demand, discipline-specific methods texts are either physically checked out or unavailable electronically, seemingly perpetually,

prompting them to purchase their own copies or wait for long periods to access needed resources. Researchers readily connected the ability to access specific texts with the library. As stated by D03: "it's totally a library role. I think that's really the big one."

Beyond methods texts, researchers also commented on the complexities of accessing specific forms of content, including news and scholarly articles, through electronic databases. D01 described their experience with a particular database as a "nightmare" but found the support of library staff helpful in these instances, and surmised that, "Presumably, they deal with it all the time, and so they figured out how to solve it."

Though researchers did not necessarily identify software or analysis tools as aspects of library collections, they described frustrations related to access and licensing consistent with other complications with library-licensed electronic resources. As F04 pointed out, "Anybody who's done qualitative research has probably ranted about the software at some point." Campus resources often do not support widespread qualitative analysis software for all staff and students. If available, access might only be available to parts of campus or specific schools, so some have to turn to their own departments for this support. Availability is further complicated by access and licensing problems; qualitative analysis software can be expensive for academic departments to support. When licenses expire, researchers may find their data trapped or inoperable on new systems.

Communities of Practice

Interviews revealed researchers' awareness of relevant expertise among peers and colleagues, with recognition of the potential for learning and growth as well as the responsibility to contribute knowledge for the benefit of others. As mentioned above, researchers were likely to reference their colleagues' expertise pertaining to various aspects of research data management. For example, D02 described not being "super well-versed" in data storage and analysis but referenced the potential opportunity to learn from colleagues: "I do know that there are folks in my department who are more well-versed in [...] data analysis and data storage than I am. I would love to have their insight [...]." Conversely, D01 described having knowledge and experience of use to others, specifically related to qualitative data analysis tools: "Most of my colleagues who come to me because they hear that I've used them, and they're like, 'How do you use them? Can you teach me? Is there a good guide?'"

In addition to opportunities for learning and development, researchers alluded to benefits of community formation for the improvement of tools and resources. For example, F03 shared: "I would love to see us push back as a community on these software developers."

Some researchers described learning that occurred largely without formal training but which benefited from access to networks of peers and colleagues. For F03, learning occurred "mostly just through doing it. [...] And doing reading on my own [...] I've read way more textbooks about case study research than I ever wanted to. And then also asking friends, call collaborators and things like that." Researcher D01 emphasized the importance of "good grad student mentoring of other grad students."

Despite conveying positive outcomes of peer and community learning, the interviews revealed that knowledge sharing among peers is not necessarily easy to initiate or sustain. Considering the circumstances of graduate students, D01 described "anxiety" that may make it difficult to approach a peer and ask, "How does Atlas.TI work?". Addressing graduate student circumstances, researcher F01 described their practice of encouraging students to seek

guidance through library instruction as well as directly from other graduate students, as a complement to formal classroom instruction. F01 also identified a need for coordinating and facilitating community engagement, suggesting that "the library could serve as a hub that brings together qualitative researchers and where we can kind of share [...] I think would be really useful."

Discussion

This study's findings demonstrate a general sense of user confidence in the library's existing and potential resources and services, accompanied by a lack of awareness among many researchers of the availability of specific tools or services, such as workshops relevant to qualitative researchers. While faculty researchers were unlikely to recognize value in library support for the intricacies of their own research, they tended to take a favorable view of the library's potential to help train and equip their students with methodological resources and expertise. This finding reinforces existing awareness of faculty support for the library's instructional role and value and also underscores a gap between the bibliographic training that libraries have offered historically and unmet needs for methodological learning. Libraries may need to consider approaches to developing and extending methodological training for graduate student user communities.

The emphasis on collections that emerged through our analysis was of particular interest given our expectation that researchers would discuss tools for methodological analysis more so than texts. Researchers' discussion of library collections indicates their perception of the library's role as collections steward and access provider and reinforces awareness that our users continue to maintain an expectation for finding, utilizing, and accessing needed texts in a timely and convenient manner. The discussion of collections also lends insight into researchers' process for methodological training and development, which includes consulting relevant texts via library collections. The researchers' description of their efforts to learn through methodological handbooks reinforces our awareness that qualitative research skills and competencies often develop outside of formal training or coursework and may be self-initiated by researchers whose reliance on library collections may both meet and complement course requirements. The expressed need for more robust research methodology resources also has implications for how these items are collected. In large research libraries, collections are often developed through subject-specific liaison roles, and methodology resources can fall between the cracks. Ensuring these resources are purchased and maintained is one important contribution the library can play in the research landscape.

Reinforcing evidence from the literature, the interviews demonstrated that researchers engage with the knowledge and experiences of their colleagues and peers in order to extend methodological and tool-based learning and competency. The behaviors and activities described align well with our field's understanding of the interactions that characterize communities of practice. Researchers described meaningful engagement within and beyond disciplinary and departmental boundaries in order to bolster learning and support for data management, qualitative data analysis, and various programming software or languages.

Recognizing communities of practice as central to qualitative researchers' process and development presents multiple opportunities for library engagement. The library's role as a non-evaluative resource provider situates it well to accommodate the "anxiety" described by D01 that may be especially prevalent among graduate students who feel compelled to demonstrate particular knowledge or competencies with tools and methodologies, but may resist approaching their peers or advisors for assistance. If the library is able to provide resources and support for

communities of practice to develop and flourish, they can both bolster organic support networks and fill in gaps that those networks may not be meeting. If the library offers opportunities for learning and engagement around specific tools and resources, it saves individual researchers from having to ask for the training and may also bring researchers with common interests together.

Conclusion and Next Steps

The research described in this paper and presented at the Library Assessment Conference in 2018 is preliminary. As we continue our collaborative effort to learn more about qualitative researchers' unmet needs and opportunities for library engagement, we expect to more than double the number of interviews analyzed thus far and then move into survey development. As we continue to code interview transcripts and update our codebook as necessary, we are excited by the possibilities that we recognize at this early stage in our research.

Our analysis to date reveals that qualitative researchers' concerns with tools, methods, and best practices are paramount and that methodological learning extends well beyond formal classroom instruction. Researchers' references to the insights and experiences of their peers and colleagues were frequent enough to prompt us toward emphasis on communities of practice in our coding and analysis, a theme which stood out to us given its prominence in the literature. We are optimistic about potential opportunities to develop service models that incorporate community of practice tenets and principles, especially given faculty researchers' likelihood to suggest developing library workshops to support research and methodology training for graduate students. The success of any kind of library-led methodological learning would rely on a highly collaborative approach, reinforcing our awareness that efforts to provision services as well as collections benefit from the perspective that libraries must partner effectively with our user community in order to be of service.

Acknowledgements

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Appendices

Appendix A Interview Protocol

Faculty and Graduate Students Interview Questions

1. Introduction
   a. What are the main research questions you are pursuing?
   b. Tell me about your research and the methodological approaches you use?
   c. What types of qualitative data do you create/collect?
      i. Format
      ii. Degree of sensitivity of the data
   d. How does your research process intersect with the library?
      i. How do you interact with your subject librarian? With other librarians or library staff?
      ii. Do you make use of research guides or other library expertise?
2. Expertise/Support/Assistance
   a. When were you first exposed to qualitative methods?
   b. How did you gain research expertise in qualitative data research?
3. Needs
   a. What are your greatest needs as a qualitative researcher?
4. Proposal stage
   a. In developing research proposals, have you had to create data management plans?
   b. What is your experience creating data management plans? (Can I see a typical one)?
5. Project set up
   a. When setting up a project, what are your initial needs?
   b. What type of literature review is needed in the beginning?
   c. Do you seek assistance from the library?
   d. IRB – Does your IRB allow for data sharing at the conclusion of your project?
6. Data analysis
   a. At what point do you begin thinking about data analysis?
   b. What types of decisions affect
      i. Data analysis?
      ii. Tool selection?
      iii. Data management?
7. Data management
   a. Do you have a "standard" data management protocol?
   b. Where do you store different types of data?
      i. Probe: Is secure storage an issue for you? Do you back up data?
   c. Do you use a file naming convention?
8. Tools
   a. Do you use any data analysis tools?
      i. Which ones?
      ii. How did you learn to use this tool?
      iii. Why did you select this tool?
   b. Do you have difficulties using this tool? Do you have difficulties accessing this tool?

c. Who or where do you go to when you have questions about this tool?
9. Project conclusion
    a. Is qualitative data sharing common in your discipline? (Probe if they share if not stated)
    b. Do you share your qualitative data?
    c. What barriers are there to sharing data?
    d. Have you reused qualitative data generated by others?
        i. Would you talk about that experience?
    e. Is there anything we didn't ask you that you would like to talk about?

Information Professional Interview Questions

1. Tell us about your role in the library.
2. How often do you interact with faculty and students engaging in qualitative research?
3. At which stage in the research life cycle do you most often interact with qualitative researchers?
    a. Probe depending on what they say, e.g., proposal stage, data analysis (look above to see the areas in which we asked students and researchers) – intuitive probe response
4. What are the typical questions from faculty? Students?
5. How familiar are you with different approaches to qualitative research? Could you talk about different you've witnessed or experienced?
6. How familiar are you with different qualitative analysis software applications? Have you personally used any of these analysis tools?
    a. Which ones does your library support (either instructionally or actually provide access to the software)?
    b. Why did you select these tools to support?
    c. Who or where do you go to when you have questions about this tool?
7. Could you talk about your familiarity with other services offered by your library to support qualitative research (data deposit, tools, databases)?
    a. What about data management?
    b. What about literature review?
8. How about other services on campus?
9. Do you refer qualitative researchers to other librarians? Which librarians?
10. What things impede you in offering qualitative data analysis support?
11. Is there anything we didn't ask you that you'd like to talk about?

Research Administrators Interview Questions

1. What is your role and central responsibilities in your position?
2. How do you interact with qualitative researchers?
3. Is there a difference in your office's approach to qualitative researchers?
4. How often do you interact with faculty and students engaging in qualitative research?
5. At which stage in the research life cycle do you most often interact with qualitative researchers?
6. What are the typical questions from faculty? Students?
7. How familiar are you with different approaches to qualitative research?
8. [If applicable] How familiar are you with different qualitative analysis software applications?
9. Do you refer qualitative researchers to other campus units? Which campus units?

10. How familiar are you with other services offered by your library to support qualitative research (data management, data deposit, tools, literature review / search, databases)?
11. How about other services on campus?
12. What things impede you in offering qualitative data analysis support?
13. Is there anything we didn't ask you that you'd like to talk about?

Appendix B Codes

Coding and Analysis
To date, 10 interviews have been conducted and coded using NVivo software. Codes were developed from the interview data and applied independently by two coders.

Interviewing and coding are currently on-going, with the intention of broadening the collection of data among researchers across campus where sampling has not yet occurred, particularly in the health sciences. Analysis of the data for emerging themes and patterns is iterative and is expected to lead to further development and refinement of the codebook. The following list of codes represents codes that have been developed and applied in this project to date:

List of codes
Attitudes
     Isolation
     Others not understanding research
Attitudes
     Qualitative Methodology
     Library
Data Management
Data Sharing
Infrastructure on campus
     Needs
     Needed and in development campus centers
     Library services
     Library circumstances
Qualitative methodology
     Disciplinary approaches
     Mixed methods
Qualitative methodology tools
     Software licensing restrictions
     Software
     Tools used
     Tool access
     Selection of specific tools
     Tool support
Skills
     Gaps
     Learning
     Teaching
Support
     External funding
Collaboration

        Between library and faculty or students
        Within the library
        Outside the library
Social identity
Communities of Practice