



Feature Article

Evidence-Based Practice and Qualitative Research: A Primer for Library and Information Professionals

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Abstract

Objectives - This paper discusses the importance of qualitative research in evidence-based library and information practice (EBLIP), with a focus on practical tips for evaluating and implementing effective qualitative research projects.

Methods - The paper provides a brief introduction to the nature of qualitative inquiry and its status within current models of evidence assessment. Three problems of excluding qualitative research from the evidence-base in library and information studies (LIS) are identified: 1) ignoring the social sciences and humanities traditions that inform research in the field; 2) privileging of quantitative and experimental methods over others in evidence assessment; and, 3) focusing attention away from the best evidence for LIS research problems.

Results - Qualitative approaches commonly used in library and information contexts are discussed, along with strategies for assessing quality in this work and some of the common ethics-related issues that researchers and professionals must consider.

Conclusions - LIS professionals are encouraged to: 1) select research methods – including qualitative approaches – that best suit LIS questions; 2) design collaborative projects that combine quantitative and qualitative approaches, that will address research questions in a more complete way; 3) consider qualitative measures of rigor in assessing quality – rather

than imposing quantitative expectations; and 4) revise existing models of “evidence” to recognize the value and rigor of qualitative research projects. Objective: This paper discusses the importance of qualitative research in evidence-based library and information practice (EBLIP), with a focus on practical tips for evaluating and implementing effective qualitative research projects.

Introduction

Evidence-based library and information practice (EBLIP) seeks to formalize the links between research and professional activities, to enhance information services and programs across library contexts. Arising out of health sciences librarianship and following in the traditions of evidence-based practice in medicine and related fields, the number of conferences and publications that support this work have seen a dramatic rise in the last few years.

However, qualitative researchers and the results of their work remain marginalized in EBLIP (see Given 2006, for an in-depth discussion of these issues). Just as qualitative research in nursing is often given less weight when compared to clinical trials and other experimental methods in biomedical practice (Morse), so too is qualitative research pushed to the edges of EBLIP. Unfortunately, EBLIP’s grounding of “rigor” and “best evidence” in its historic biomedical/experimental framework often excludes the results of qualitative research due to the imposition of inappropriate expectations of how data will be gathered and analysed (Law). This approach raises a number of problems for LIS professionals who wish to develop an appropriate evidence-base for LIS contexts and problems:

1) It ignores the LIS field’s grounding in a social sciences and humanities tradition of scholarship (as opposed to biomedical / experimental frameworks), which commonly includes qualitative research approaches;

2) It privileges particular types of data and research approaches (namely, those that are quantitative or experimental in nature) over other, equally valid research paradigms; and,

3) It focuses the LIS field’s attention on the wrong question by asking “what is the best evidence?” based on models imported from other (primarily health-related) fields; instead, LIS professionals should ask “what is the best evidence for the problems faced in library and information science?” in the context of research models appropriate to the field.

Qualitative Research - a Central Role in EBLIP

Although many LIS problems may indeed benefit from systematic reviews and other experimental approaches (such as the use of pre- and post-testing in information literacy instruction), there is a great deal of qualitative evidence in the field that practitioners cannot and should not ignore. It is not only inappropriate to measure the results of qualitative research using the standards of clinical trials and other biomedical and experimental models, but doing so also negates one of the core tenets of the LIS profession – namely, selecting appropriate, quality information to address current problems or information gaps. As LIS professionals formalize strategies for including research evidence in daily practice, the strengths of our existing body of work must be addressed. This paper, then, calls on LIS professionals to:

1) embrace those existing qualitative studies which are rigorous and relevant to current LIS practice;

2) contribute to this literature by conducting and publishing studies using qualitative methods; and,

3) revise existing models of “best evidence” in LIS to include rigorous qualitative research.

This paper is intended to guide LIS professionals in these endeavors, and to serve as an introductory primer for evaluating and implementing qualitative research in EBLIP.

Assessing the Quality of Qualitative Research

Qualitative research in LIS provides credible evidence about patrons’ perceptions of library services, the effectiveness of information literacy strategies, the design of web portals, and other service-related questions (e.g., Saumure & Given). Other projects use qualitative textual approaches (such as discourse analysis) to assess library policies and organizational structures, the construction of classification systems, and other questions that require textual forms of data (e.g., Hedemark, Hedman & Sundin). Increasingly, LIS researchers are also combining these approaches (i.e., using multiple qualitative methods), or completing studies that use both quantitative and qualitative approaches to obtain the best possible evidence (e.g., Whitmire 2004). Research in the field of LIS typically draws on the variety of methods commonly used in social sciences and humanities disciplines (including education, sociology, anthropology, and other related fields), with a strong emphasis on qualitative and quantitative research traditions. Indeed, there are many research methods texts that can guide LIS professionals in their assessment of published qualitative research and in the design and implementation of qualitative research projects (e.g., Shank).

To conduct research of high quality (regardless of paradigm) researchers must use appropriate methods to address the research problems at hand. To assess patron satisfaction with an information literacy instruction session, for example, a researcher should start by asking:

1. “What do I want to know?”
2. “What method is best to address this problem?”

Qualitative methods, by nature, can address many of the “why” questions that librarians and LIS researchers have in mind. Where quantitative approaches are best for addressing *what* has occurred or *how many* events (e.g., counting the number of times a patron used the library’s website), these approaches cannot explain *why* these behaviours happen. Qualitative approaches do just that; they are used to describe things about which little is known, especially in natural settings. They capture meaning (in the form of individuals’ thoughts, feelings, behaviours, etc.) instead of numbers, and describe processes rather than outcomes (Mayan 5-6). Where quantitative methods (in attempting to maintain objectivity and reduce bias), strive to eliminate or control for contextual elements (such as cultural background or personal history) so they will not ‘contaminate’ the variables under study, qualitative researchers embrace these elements and design studies that will examine the relevant issues within a broader, social context.

Identifying Qualitative Studies

In compiling an evidence-base for LIS practice, then, it is important to understand that the intended goals of qualitative research – and the types of data and analysis used in these projects – are markedly different from those of quantitative studies. The data that result from qualitative work tend to be very rich in scope, providing an

in-depth glimpse of themes and issues. This is quite different from the results of quantitative studies, which typically provide a broader, surface-level perspective. A few key features to note:

- Hundreds of pages of transcripts may result from a few in-depth interviews or dozens of field journals may be documented in a series of ethnographic observations. The data are very rich in scope and provide for detailed analysis.
- Data collection and analysis may occur over a period of months, even within one setting or with only one small group of participants.
- The sample sizes used in qualitative research are typically small, due to the rich data that are gathered and the depth of analysis required. Researchers must balance financial and time constraints against the type of data required for meaningful, transferable results given the research questions being addressed. Typically, transferable data (i.e., where themes can be applied across a larger population) will result with sample sizes of 15 to 18 people – but this will vary depending on the scale and scope of the research problem.
- As researchers may use multiple methods to explore one research problem the length of time to complete a study may also be much longer than with other research approaches; even a small-scale qualitative project, using only one method, can be “labor intensive” due to the rich nature of qualitative data (Miles & Huberman 46).

- Results are typically published over many months (or years) and in a number of separate journal articles or in a larger, book form. Taken together, these research reports can provide a clear and in-depth picture of the topics under study.

Qualitative Methods in LIS Research

Qualitative methods texts describe numerous data collection strategies that can be used in various settings and to address different types of research problems (e.g., Flick). A few methods that are commonly used in library settings are detailed here, with examples from the LIS literature. However, qualitative researchers are also active in sociology, education, nursing, and many other fields, and their results can inform LIS practice; these should be included in an evidence-base for EBLIP (e.g., education research can inform the design of information literacy programs).

Across all of these disciplines, models of exemplary qualitative research have emerged. Individuals who wish to learn more may find journals specializing in qualitative methods (e.g., *International Journal of Qualitative Methods*; *Qualitative Inquiry*; *Qualitative Health Research*) to be particularly helpful in providing an overview of issues and guidelines for implementing and evaluating qualitative work.

Methods Involving Human Participants

In-depth, qualitative interviews allow researchers to examine issues from the interviewee’s perspective, with a particular focus on “why” an individual acts a particular way or makes certain decisions. Qualitative interviews have been used in many LIS contexts to explore various topics and patron behaviors (e.g., Hart, Henwood & Wyatt). In usability testing, for example, qualitative interviews can be combined with explorations of library websites and

databases to assess users' preferences and expectations regarding navigation and information retrieval. A few key points to note:

- Interview data consist of verbatim responses to an interviewer's questions, which are designed to elicit feelings, attitudes, descriptions of behaviors, and other elements relevant to the research problem (see Seidman).
- Interviews typically last 60 to 90 minutes, though this will vary depending on the scope and goals of the project.
- Common themes and patterns emerge from the data (especially when more than 15 to 18 people are interviewed).
- Group interviews (often called "focus groups") are typically run with one or more groups of approximately five to eight people.
- Focus groups are more challenging to manage than individual interviews, so should be conducted by trained facilitators (see Patton).
- Ethics-related issues will depend on the nature of the interviews (individual vs. group), the questions asked (e.g., sensitive topics?), and how data will be used (e.g., will interviewees be identified – or will pseudonyms be used?).

Observing human behavior in libraries (such as watching patrons as they use library computers) can elicit insightful data that cannot be captured using other qualitative methods. Observational methods have been used in a variety of library settings, to document the activities of patrons and staff. In some cases,

ethnographic approaches have been used (e.g., McKechnie), while other projects use these methods in conjunction with interviews, photographs, and other data collection methods (e.g., Leckie & Hopkins). Some key points to note:

- In observational work, researchers may document details about the individuals in the setting (e.g., age, gender, or behaviors), as well as physical resources, layout, or other elements of the organization under study.
- Observational data are typically gathered over a long period of time to ensure credibility. Some qualitative researchers may be on site for many months (especially participant observers, who may work as librarians while gathering data); others may gather data in intensive observational sessions (to capture "a day in the life" or a "week in the life" of the library).
- Observational methods can be overt (e.g., where a reference librarian's colleagues know that s/he is gathering data as a "participant observer" during shifts on the reference desk) or covert (e.g., where patrons are observed, without their knowledge, while searching for books in the stacks); ethical issues will vary with the types of data collected and analysis strategies.

Textual Methods – with Participants or Published Texts

These approaches can take two forms – asking individuals to create texts that will later be analyzed (e.g., patron journals of library search habits), or analyzing existing texts (e.g., reviewing published library policies on internet filtering). Asking

patrons to document their activities can be an effective way to examine patron behavior without relying on individuals' memories of past events (e.g., Julien & Michels 2004). Examining existing texts can point to debates in the field or policies that may inadvertently exclude certain patrons (e.g., Given & Julien). Some key points to note:

- Participants typically need some instruction about how much detail to provide, how often, and on what topics, but journals – whether written or made using digital audio/video recorders – can often produce more detailed responses than interviews or other methods will allow, as individuals can take more time to craft a response.
- Journal entries can be combined with other, complementary methods (e.g., personal interviews), so that the researcher can obtain a more complete picture of the topics under study.
- The proliferation of publicly available annual reports, policy documents, web portals, etc., makes gathering textual data quick and easy.
- As with other qualitative methods, ethics-related decisions with participants will depend on the nature of the investigation (e.g., will participants be identified?) and the type of data gathered.
- Publicly available materials, however, may be assessed without formal ethics review – however, many researchers choose to anonymize data to protect individuals' identities (e.g., in analyzing postings to public listservs).

Assessment Criteria for Qualitative Projects

The criteria used to assess the quality and rigor of quantitative and qualitative studies are vastly different, and grounded in each paradigm's specific (and often contradictory) end-goals. In quantitative research, rigor is judged in terms of a study's validity, reliability, generalizability, and objectivity. Quantitative results are intended to be free from bias, to be replicable across contexts, and to generalize from the sample under study to the full target population (e.g., to all undergraduate students using Canadian academic libraries, or to all seniors using public library websites). Qualitative research has its own, separate measures of quality: credibility, transferability, dependability, and confirmability (Lincoln & Guba 301-328).

These criteria are no less rigorous than those used to assess quantitative data; they are simply different, and require different steps and measures to ensure quality data. These steps may include: prolonged engagement in the field; persistent observation; triangulation of methods; negative case analysis; peer debriefing; member checks; and many other techniques that are often used together. Qualitative results are not designed to generalize or be replicable as with the results of quantitative studies. Rather, qualitative results often point to areas where a single representation of reality does not hold, or where specific sub-populations have particular needs that are not reflected in broad generalizations (e.g., Saumure & Given's finding that university students with visual impairments require special services in the academic library).

Conclusion

As the EBLIP movement continues to gather momentum in LIS, it would be ideal to put the controversies to rest regarding the value of qualitative evidence to support change in practice. There are a number of steps that

professionals can take to ensure that the research they use – and conduct – is of the highest caliber:

1. Clearly articulate the research problem and select methods that provide quality evidence for that problem. Methods texts provide great advice for matching problems to methods, and tips for implementation and evaluation of quality work.
2. Design collaborative research projects, where quantitative and qualitative researchers – as well as LIS scholars and practitioners – can work together to build a solid and highly relevant base of evidence for LIS practice.
3. Review measures of trustworthiness (credibility, confirmability, dependability, and transferability) in reports of qualitative research – while recognizing that not all writers will address these markers, explicitly. Do not presume a lack of rigor in these cases; rather, examine sample size, triangulation, etc. in assessing the quality of the work.
4. Revise existing measures of “evidence” to best incorporate qualitative research into EBLIP. Rather than relying on existing evidence-base models and hierarchies that are grounded in a biomedical framework, develop new measures that will reflect the social sciences and humanities traditions of the LIS field.

In the health sciences, numerous publications examine the problems and limitations of not incorporating qualitative research into systematic review protocols and other measures of quality evidence (e.g., Greenhalgh). It is important that EBLIP follows this path and finds ways to include qualitative research in the evidence-base for

the LIS. As qualitative and quantitative approaches examine the world from two very different vantage points, our “best practice” is one that recognizes and values both perspectives. Existing EBLIP models have created a valuable space for discussing the relevance of research to practice; it is now vital that those models evolve, to ensure that all work of high quality will be part of the EBLIP discourse.

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