**Exploring the Research Knowledge Needs of Canadian Academic Librarians**

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**Abstract:** As academic librarians increasingly embrace the core value and challenge of engaging in research and scholarly work, and as senior library administrators continue to adopt evidence-based decision making, staff research knowledge and skills must be constantly and systematically developed and augmented. However, descriptive data on current competencies and competency gaps are not widely reported, nor are methodologies for capturing and articulating deeper insights into attitudes and perspectives. This paper describes the outcomes of a pilot project to shed light on the current levels of research knowledge, experience, interests, competencies, and learning needs as identified by academic librarians employed by the University of Alberta Libraries, which serves faculty, staff, and students at one of the major research institutions in Canada. The longer-term goal is to build capacity at both the institutional and the professional levels for sustaining an assessment and research culture.

**Keywords:** academic librarians, research librarians, academic libraries, research libraries, Canadian research libraries, academic librarianship, research, scholarly activity, Canadian Association of Research Libraries, CARL

**1. Introduction: Research and Scholarship as a Core Value of Academic Librarians**

An important mandate adopted by more and more librarians working in Canadian research libraries is to contribute actively to the knowledge base of their professional discipline, as well as to align themselves more centrally with the broader academic process of scholarly communication. Engagement with the scholarly communication process is increasingly recognized as a core value. Indeed, there is an increasing expectation in research libraries across Canada that librarians pursue active research and scholarship for purposes of tenure, promotion, and annual performance.

More recent is a nascent recognition of evidence-based management decision making to advance institutional service goals. Within the last decade or so, major research libraries in North America have begun participating in large-scale user assessment projects in order to enhance managerial decision-making; Lib-QUAL+, which is offered by the Association of Research Libraries (ARL) (2010), is the most prominent tool in this collective endeavour.

These parallel trends, professional participation in research and institutional interest in evidence-based management, are converging gradually to create heightened interest in an organizational and professional culture of research and assessment – not only within individual research libraries but within the broader community of library professionals and professional associations as well.

Nonetheless, as academic librarians take on the challenge of producing and disseminating both scholarly and applied research knowledge, and as administrators expect higher levels of research productivity and evidence-based decision making, it is important that staff research knowledge and skills be constantly and systematically developed and augmented. One of the little studied questions is the extent to which they have the requisite knowledge and skills to conduct high quality research and scholarship, and what further learning needs they self-identify in order to maintain or even enhance their productivity.

Descriptive data on research competencies and competency gaps are not widely reported, nor are methodologies for capturing and articulating deeper insights into prevailing attitudes and perspectives regarding the research and scholarship enterprise. Two recent studies have addressed particular aspects of interest to the present study, Fennewald (2008) and Fox (2007a, 2007b). A sort of case study, Fennewald held face to face interviews with academic librarians at Penn State to shed light on their perceptions of research productivity and barriers. Fox conducted a Web-based questionnaire survey of the motivations of Canadian academic librarians to engage in research and scholarly activities, the perceived importance of such activities as a criterion for tenure and promotion, and the availability of various types of support.

This paper describes one response to the dearth of knowledge in this area, a sort of selective case study snapshot of one institution, the University of Alberta Libraries (UAL). The paper describes the outcomes of a pilot project to shed light on the current levels of research knowledge, experience, interests, competencies, and learning needs identified by academic librarians at UAL, which serves faculty, staff, and students at one of the largest research-intensive universities in Canada. With a response rate of 68%, survey findings are strongly indicative, although there is always the possibility of markedly variant non-respondents.

**2. Background: The University of Alberta Libraries**

Over the years, in the gradual evolution and codification of collective agreements in Canadian research libraries, more and more consideration was given to librarians as scholar-researchers. Positioning itself as a learning institution, University of Alberta Libraries is a leader in fostering research and scholarly work by librarians on staff. Ongoing strategic priorities include support and enhancement of a “culture of assessment and research,” both in the operations and services provided by the institution and among its librarian cohort. Several UAL policy traditions serve to promote this institutional and professional culture: UAL tenure and performance standards in the collective agreement; UAL strategic planning; UAL institutional supports; new librarian job expectations; librarian research competencies; and key functional initiatives, the assessment office and the director of research office.

Nonetheless, there still exists a great deal of variation among research libraries across Canada in tenure and performance requirements for research. Further, there are considerable differences in what is counted as research and scholarly work. UAL recognizes multiple approaches and types of scholarship, though there is a preference for applied research projects. Another Canadian academic library states that scholarship encompasses research, scholarly and/or artistic production in applied, subject, or theoretical/policy scholarship, with the quality and significance of scholarly work judged by the presence of a “programmatic approach.”

Tenure standards in the UAL collective agreement refer to research in permissive terms as one component in a larger category of professional and scholarly contributions: “A staff member may participate in professional and scholarly research.... and may request that individual research projects be included in the specific responsibilities assigned” (University of Alberta 2007, article 7.03). Although permissively phrased, at the same time UAL tenure candidates must show evidence of “commitment to continuing professional growth as exemplified by formal or informal study” to ensure the continued growth and development of the Library, the University, and “future potential in the field of librarianship” (University of Alberta Libraries 2000). In some institutions, research engagement is a mandatory criterion for tenure, merit, and promotion.

In keeping with a more inclusive approach to research and scholarly endeavours, UAL acknowledges a diversity of vehicles for dissemination of findings. Research dissemination is broadly described in the Librarian Agreement to encompass publication in traditional formats, conference presentations, technology-based projects, online journal articles, and other digital and non-print publications, stipulating only that research should reach a wider audience than “the candidate’s normal working environment” (University of Alberta Libraries 2000, sub D). In some institutions, peer-reviewed vehicles, with a preference for peer-reviewed journals, are the paramount criterion of research productivity.

Also reinforcing research engagement by University of Alberta librarians is the Library’s strategic plan and ongoing strategic priorities, which include support and enhancement of a culture of assessment and research for both institutional and professional goals. The latest strategic plan refers to fostering “a spirit of innovation,” supporting staff participation at conferences and meetings of professional organizations, and promoting “quality scholarly research and the exposure of that research by our librarians by way of publishing and academic presentations**”** (University of Alberta Learning Services 2006).

UAL institutional supports include the annual professional expense allowance, research travel support, and research funding support, although all of these are admittedly somewhat limited pools of money. In recent job ads, a greater emphasis on research credentials and research potential have been stipulated as an expectation of new librarians: “Successful candidates will also be interested in and seek opportunities for conducting research and the evaluation of services and collections” (University of Alberta Libraries, 2009). Recently, a research competencies statement has been incorporated into UAL librarian standards and core competencies. Under consideration as well is a high-level presence on the UAL Web site for a “Research and Assessment” page, which would list librarians’ publications and presentations, internal resource links such as the site for research ethics applications, and research funding sources.

Two other important initiatives that advance UAL strategic priorities with respect to research are the creation several years ago of an assessment librarian office responsible for large-scale mission feedback research, and more recently the hiring of a director of research charged with coaching and advising librarians about their research activities. The Assessment Librarian position was created 8 or 9 years ago, first as a secondment for research and special projects involved in assessment work, and then as a newly-established permanent position in December 2003. While LibQUAL was an important factor, the overriding impetus was the more general move in ARL libraries towards more evidence-based management, that is, towards a state of continuously improving the institution on the basis of “data-based” decision-making that would be squarely focused on user-identified needs.

Another step by UAL was the creation of a Director of Research position in July 2009, responsible for working with librarians on staff to facilitate and encourage the development of a research culture. Specific activities are advising and encouraging librarians in all phases of the research process, and recommending strategies for enhancing research knowledge skills. Such strategies might include designing workshops, inviting speakers, identifying external expertise, planning colloquia and research fairs, assessing research competency needs, reviewing research ethics applications, and advising on funding proposals. Also part of the mandate is contributing to a stronger foundation of evidence-based institutional decision-making.

**3. Research Knowledge Learning Needs Study of University of Alberta Librarians – Background**

At the start, it is essential to acknowledge the already well established traditions and very high levels of research and scholarly contributions that characterize University of Alberta librarians. At the same time, with an increasing emphasis on research credentials and research productivity to bolster institutional reputations and to enhance evidence-based institutional decision-making, and in order to meet new challenges in research philosophy and methodology, staff research knowledge and research process skills must be continuously updated and expanded.

In recognition of this policy direction, a field-tested, Web-based questionnaire survey was conducted in September 2009 to gain a better understanding of University of Alberta librarians’ research and scholarly experience, research activity levels, research knowledge learning needs, the research topics on which further education and training would be helpful in support of continuing research activities, and preferences for how acquiring such knowledge could best be facilitated. It was hoped that this snapshot of a particular institution at a particular time would shed light on strategies for fostering and enhancing the quality of research produced by University of Alberta librarians.

The immediate motivation was preparation for an all-day introductory research methods workshop in October 2009, sponsored by the Council of Prairie and Pacific University Libraries (COPPUL) and conducted by Joan Giesecke and Nancy Busch (Dean of Libraries and Associate Dean for Administration, respectively, University of Nebraska Lincoln Libraries); they have conducted workshops for the ARL leadership and career development program as well as for other university libraries throughout North America. Research ethics approval was obtained so that survey findings could be shared with colleagues beyond University of Alberta Libraries. A total of 76 librarians were asked to complete the survey, resulting in 52 usable responses, for a very positive participation rate of 68% that suggests survey findings can be considered strongly indicative of the majority of the UAL cohort; at the same time, the attitudes and opinions of non-respondents may be markedly different from respondents’.

**4. Research Knowledge Learning Needs Study of University of Alberta Librarians – Executive Summary**

The survey shows that University of Alberta librarians are active researchers, authors, and presenters. In the last two years, almost 80% of responding librarians reported making a presentation at a conference or workshop or on a panel, and more than 40% have engaged in other dissemination activities such as publishing a journal article (digital or paper); reviewing a book; and making a poster presentation. Other research activities have included publishing a paper in conference proceedings, acting as a journal editor or referee, organizing a conference, publishing in digital form such as a wiki, database, or Web site, publishing a book chapter, acting as a book editor, conducting an environmental scan, and offering a Webinar.

Survey participants said they plan to be just as active in the next couple of years. Some 8 out of 10 respondents intend to present a paper or poster or otherwise share research results. As well, more than half are interested in advice, coaching, or other assistance, principally in the areas of poster presentations, oral presentations, and research methods.

In terms of research engagement within the next year or two, 75% of responding librarians are currently involved in research activity at various stages, from “the thinking stage” and general exploration to collaboration and article writing. They are investigating a wide variety of research topics and areas, ranging from a study of catalogue use and development of organizational assessment schema to information literacy, search filtering, and mental health literature bibliometric analysis. They plan to publish the results of their research in a variety of communication formats including paper and online journals, book chapters, conference proceedings, and conference presentations. Two-thirds of them are interested in advice, coaching or other assistance with their research projects, notably with writing for publication and publishing choices, various aspects and types of methodology, and proposal development.

Half of the responding librarians are “quite confident” of their own knowledge of research and the research process, while others feel a bit uncertain or need a refresher on a wide variety of particular aspects. Several mentioned the need for time for thinking, researching, and writing. More than half of them thought it was important to increase their knowledge in each of the following areas:

* analyzing data/results
* choosing an appropriate methodology for research
* sources of and applying for research support/funding
* writing a research proposal
* ethics approval
* publishing findings
* writing a journal article
* peer reviewing/refereeing conference proposals, journal article submissions, etc.

By far the preferred delivery mode for acquiring more knowledge in these areas was workshops, variously described as instruction, collaborative sessions, active discussions, seminars, presentations, classroom sessions, lectures, and focused meetings; one librarian suggested “a format that would allow seasoned researchers to present their experiences, what worked for them, etc.”

Other delivery mode preferences mentioned several times by responding librarians were:

* one-on-one coaching and consultation – “someone to consult with about any of these areas would be better as the research project unfolds”; “access to colleagues with a lot of knowledge in this area”
* peer group discussion, informal support of colleagues
* resource lists, tip sheets, help documents
* online workshops, refreshers
* self-study and reading.

In response to another survey question about collaboration, more than 90% of the responding librarians indicated an interest in collaborative research arrangements, suggesting many ways in which the Libraries could support such collaboration. The most frequently mentioned ideas were:

* research or release time, even short research leaves such as one week would help promote a culture of research because it would formalize research as an activity
* research ideas seminars or forums for brainstorming, inspiration, making connections, and potential collaboration – especially between units, as one librarian noted, “because we often work on projects within our own units or with close colleagues, and we need to get out more to shake things up a little”
* Web site, database, or “knowledge-base” listing current projects, research interests, finding collaborators
* formal recognition and evaluation of collaboration.

Some 70% of respondents were also interested in participating in a mentoring program for research activity, again providing helpful suggestions for program planning. Ideas were: having a forum or allowing time for meetings so people could get together for peer mentoring, developing a resource list of possible mentors with qualifications and research interests, and suggested criteria for mentors, such as people with an extensive research background, people with similar research interests, or only if the mentor is a co-author or co-investigator. Two respondents offered to act as mentors.

**4. Research Knowledge Learning Needs Study of University of Alberta Librarians – Study Conclusions**

While there has long been a subjective, impressionistic sense that University of Alberta librarians were professionally active in research and scholarship, this survey provides strong evidence of their engagement at very high levels. The survey also helps to shed light on their self-identified educational needs for more research knowledge in key areas: applying for research funding support; formulating researchable questions and developing research proposals; obtaining research ethics approvals; matching quantitative and qualitative methodologies to research questions; analyzing data; writing for publication; and engaging in peer review. University of Alberta librarians said they preferred knowledge acquisition in these areas through the following modes of delivery: interactive workshops, both in person and online; one-on-one coaching; peer group sharing, discussion, and brainstorming; collaborative research arrangements; resource lists and tip sheets; and peer mentoring.

Concluding remarks by several respondents in both the original and post-workshop surveys echoed earlier concerns about the crucial need for release time for research. Another concern addressed academic freedom, and asked for clear guidelines from the library system on how much freedom and how much research support one should expect to have in the University of Alberta Libraries context. Others commented, variously, that they looked forward to being supported in their research; appreciated the opportunity to respond to the survey questions; appreciated the Library’s emphasis on research and all the support being given; thought the Library is really trying to help them along this path; and believed this to be an important area for development in the system. And finally, one respondent noted, “This is an exciting initiative!”

This snapshot sheds light on current levels of research experiences, research interests, attitudes to research, research competencies, and research knowledge learning needs of academic librarians at the University of Alberta. It also provides a framework for designing educational opportunities for ongoing research knowledge acquisition.

**5. Fostering a Research and Scholarly Culture among Academic Librarians: Towards Best Practices**

This study has stimulated broader institutional policy questions. How is a climate of research and scholarship achieved? What are the essential elements of a strong research culture? How can this culture be fostered, and by whom? What are the barriers to research and research productivity? Some implications for identifying best practices come out of the UAL needs assessment in part, but corroborated and expanded through experience, the literature, and colleagues. One goal might be to draft a template of best practices for fostering a research culture at individual institutions.

Some key factors can be identified in enhancing an organizational culture of research and scholarship. They pertain broadly to policies, strategies, and practices for research and scholarship. One place to start in thinking about these issues is to identify the multiple stakeholders and constituencies involved, among whom are:

* university administration
* library administration
* librarian cohort and peers in other institutions
* user communities
* faculty as collaborators and resource persons
* university research grants and research ethics offices
* institutional, professional, and related associations
* professional journals and other professional publishing venues.

In Canada, the key institution-based association is the Canadian Association of Research Libraries (CARL), which has produced a “competencies” statement and offers small research and development grants to promote knowledge production (Canadian Association of Research Libraries 2008), and in its 2010-2012 strategic plan, CARL (2009) identifies the development of research skills in research libraries and the promotion of evidence-based librarianship as strategic components. There is also the membership-based Canadian Association of College and University Libraries, a division of the Canadian Library Association (CLA), which promotes research activity through a small research support grant program, a program of peer-review of CLA conference proposals for two sessions per year, and hosts the Canadian Academic Libraries Network (2010); CLA itself supports and promotes research through an annual research grants competition. The Education Institute is a program of short audio programs on many topics, including research and scholarship, sponsored by The Partnership, a consortium of provincial, territorial, and regional library associations in Canada. At the broader level are a multitude of stakeholders who are among the most important leaders in fostering and promoting a research culture in the profession: ARL; the American Library Association (ALA); the Association of College and Research Libraries, a division of ALA; the Medical Library Association; the Special Libraries Association; OCLC; and the International Federation of Library Associations and Institutions. As well, at the national level in Canada, there are research granting agencies, most notably the Social Sciences and Humanities Research Council (SSHRC). Finally, there are university workshops and programs for research knowledge development.

Commitment to a culture and climate of research is two-pronged, applying to both research library administrators and to academic librarians. Among the chief factors in this challenge is the level of commitment by senior library leadership to evidence-based management. Research for evidence-based decision making must permeate institutional policies, strategic plans, decision processes, budgetary priorities, human resources and staff development, supervision, academic standards, travel support, research funding, and institutional projects.

At the professional level, and in the old tradition of the scholar-librarian but now redefined as new modes of evidence-based work, there needs to be institutional support for individual librarians as producers and disseminators of research and scholarly work. At the broadest level, tenure, promotion, and performance standards in collective agreements should address research and scholarship. It is also suggested that an inclusive approach be adopted in conceptualizing the scope of research and scholarly activity, as well as in endorsing multiple channels of dissemination. Research and scholarly activity should be built into annual job expectations, rewarded, acknowledged, and celebrated; all organizational levels should be included. Time for a variety of focused efforts should be supported in the form of research leave, study leave, continuing professional development events such as workshops and conference attendance, as well as dedicated work days or weeks and measures to maintain work-life balance for burnout prevention.

It should also be remembered that new graduates also require ongoing research training – we cannot simply rely on their newly-completed professional education; research competency means lifelong learning. Lifelong learning involves individual librarian recognition of the need for continuous self-assessment of learning needs to ensure and maintain lifelong competency to conduct quality research. Also important is the development of a research community, a network of like-minded colleagues both local and at other institutions as resource persons, potential collaborators, supporters, reviewers or critics, and mentors; active support of peers is an especially critical factor. Celebration and public recognition of research achievements, awards, and so on, by and with this network is part of the pleasure of research and scholarly engagement. Last but not least, there must be passion!

It is also anticipated that the present study will serve as a research prototype and pilot for a multi-institutional, nationwide project along similar lines to capture a national snapshot of research productivity and competency found among Canadian academic librarians. Recognizing that engagement with the scholarly communication process is a core value of academic librarians across Canada, it is anticipated that the University of Alberta pilot study represents a solid springboard to the national level.

In the long term, it is hoped that the quality and quantity of research produced by University of Alberta librarians will grow in quality and diversity, thereby enabling them to become recognized participants in the scholarly communication process, nationally and internationally. It is also hoped that the strategic directions of UAL will be informed and strengthened by more systematic foundations of evidence-based policy and decision making. Both trends will help to build capacity at both the institutional and the professional levels for growing an assessment and research culture.

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