CARL LRI Paper: Success in Research: Factors that Contribute to Increased Research Productivity Across Librarianship and Other Disciplines

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Abstract: Research is a professional responsibility for many academic librarians. Some are successful researchers; others struggle to be productive. This content analysis is part of a larger study designed to develop an instrument to determine the factors contributing to librarians' success in research. This presentation highlights similarities and differences in success factors discussed in LIS and other disciplinary publications.

Résumé:

Extended Abstract:

1. Introduction

Scholarly activities, including research and publication, are a professional responsibility for many Canadian academic librarians. Scholarly output is a common requirement for tenure and promotion in academic libraries and therefore is important for librarians' career progression. An increasing emphasis on evidence-based practice in librarianship has also contributed to greater focus on librarians conducting research. Some academic librarians have enthusiastically embraced the role of researcher and have successfully become active researchers and authors, but others have struggled to be productive in this aspect of their responsibilities.

To a large extent, the library literature has focused on struggles rather than successes when discussing librarians conducting research. Several authors have addressed the challenges that librarians face when conducting research and the barriers that may prevent them from being productive researchers (for example, Fox 2007; Powell, Baker and Mika 2002). Commonly noted challenges and barriers include time constraints, lack of support, and lack of research training or experience. Such obstacles may indeed hinder librarians' research endeavours, and point to a need for systemic changes in the practice of academic librarianship. However, the prevalence of publications that address the reasons why librarians find it difficult to carry out research and publish their findings may overemphasize the challenges. Many academic librarians are successful researchers, and by turning our attention to the factors that have contributed to their success, it may be possible to describe the conditions that are most conducive for academic librarians to carry out their research responsibilities.

2. Aims

This content analysis is part of a larger study designed to develop a research tool to determine the factors contributing to librarians' success in research. This presentation reports on an initial stage of the project, which set out to identify possible factors contributing to librarians' success in research through content analysis of the literature on research productivity. In addition to literature on librarians' research productivity, this paper crosses the borders of disciplines by including literature on the research productivity of faculty members in other disciplines, in order

to achieve a more holistic understanding of the factors involved.

The research questions that will guide this review are:
- What are the factors that have been identified in the scholarly literature as contributing to academic librarians' and faculty members' research productivity? Were these factors based upon empirical research studies, and were outcomes measured or perceived?
- What are the similarities and differences between the success factors for academic librarians and those for faculty? Does the literature on faculty productivity provide any insights on potential factors not yet studied for librarians?

3. Methods

The researchers performed content analysis of the literature on research productivity. Several databases were searched, including LISA, Library Literature, Scopus, Web of Science, and Google Scholar, for papers relating to research productivity AND (success factors OR supports). The researchers also had access to a personal database of literature related to librarians as researchers, which had been collected for a previous research project, and this database was searched for papers relating to success factors OR supports. Reference lists from identified papers were reviewed and cited reference searches on relevant papers were also undertaken.

The search resulted in 121 relevant papers. The full-text article for each was loaded into a Zotero database where each researcher could retrieve it. The papers were divided among the three researchers for data extraction and coding.

For each paper, the researchers noted whether the work was related to librarians or faculty, and if it was an empirical research study. Researchers then coded the content of the paper with respect to the success factors mentioned, within broad categories such as *time* or *mentoring*. This process was iterative, with the researchers adding new categories as needed and noting related terms within overarching categories.

Following the initial coding of success factors, those papers that were identified as empirical research were examined more closely in order to identify whether the research explored a direct relationship between support factors and increased research productivity, and whether that relationship was measured or perceived.

4. Findings

Sixteen main factors that contribute to success in research productivity were identified. Factors were grouped into three overarching themes: 1) Individual attributes; 2) Peers and community; 3) Institutional structures and supports, as noted in Table 1, below.

Table 1. Success factors

Individual attributes	Peers and community	Institutional structures and supports
Academic rank	Collaboration	Access to and use of resources
Demographics	Community	Department/institution

		qualities
Education and experience	Guidance and support from editors	Extrinsic motivation
Personality traits	Impact of family and personal relationships	Positive organizational climate
Professional commitment to research	Mentoring	Time
	Peer support	

In the literature as a whole, the most prevalent factors were education and experience, time, access to and use of resources, mentoring, and professional commitment to research. Of the papers related to librarians, the most prevalent factors were time, education and experience, access to and use of resources, and peer support. Of the papers related to faculty, the most prevalent factors mentioned were professional commitment to research, mentoring, education and experience, and access to and use of resources.

Of the 121 papers examined, 38 were not empirical research studies; these were typically opinion pieces, reflections, or descriptions of research support initiatives. Of the remaining 83 papers that presented research, 40 did not explore a direct relationship between success factors and research productivity. This left a total of 43 research studies that explored a direct relationship between at least one success factor and increased research productivity. Of these, 11 were related to librarians and 32 to faculty from various academic disciplines. Table 2 provides a summary of the most prevalent factors explored within this subset of the research literature.

Table 2. Most prevalent factors that contribute to research success, as studied in the research literature

Factor contributing to success	Number of studies (43 total)	Librarian studies (11 total)	Faculty studies (32 total)
Education and experience	27	8	19
Professional commitment to research	21	2	19
Mentoring	19	2	17
Extrinsic motivation	19	5	14
Positive organizational climate	19	6	13

Time	18	5	13
Personality traits	18	3	15
Access to and use of resources	17	4	13

Success factors most commonly discussed within the librarian literature have very little correlating research that explores a direct relationship between the factor and research success. For example, time is the factor most discussed in general, but only five research studies have explored time as a contributing factor to research success. In addition, some factors identified in this study have very little research on librarians, although there are many studies addressing those factors within the wider body of research literature of other disciplines. For example, professional commitment to research has only 2 librarian studies, but 19 related to faculty; and likewise, mentoring has 2 librarian studies but 17 related to faculty. Some factors found within the research pertaining to faculty have not been studied at all for librarians, such as academic rank, demographics, community, guidance and support from editors, and department/institutional qualities.

The 43 research studies that explored a direct relationship between at least one success factor and increased research productivity could be categorized into approaches that either directly measured the impact of the success factor, or focused on participants' perception of what factors led to success. Twenty-five studies attempted to measure impact, while 11 focused on perception, and 6 incorporated both approaches. There were no discernable differences between the types of approach within the literature on librarians and the literature of other disciplines. In the majority of cases, across the studies of both LIS and other disciplines, researchers used a survey tool to gather their data.

5. Conclusions and Next Steps
This examination and review of the literature on success factors that contribute to increased research productivity reinforces the need for more research on success factors for academic librarians, and points to specific factors, such as mentoring and professional commitment to research, for which such research would be valuable.

The authors will use the information gained from this review to create a validated research tool that will be used to further study the factors that academic librarians perceive as being important to their success as researchers. Ultimately, an increased knowledge of what factors allow librarians to become successful researchers should enable more librarians to build on those successes and allow academic institutions to provide better support for research by professional librarians. This will build a stronger foundation of research evidence within our professional knowledge base, which in turn will strengthen the profession and assist with better decision-making by practicing librarians.

References
Fox, David. 2007. Finding Time for Scholarship: A Survey of Canadian Research University Librarians. portal: Libraries and the Academy 7: 451–462.

Powell, Ronald R., Lynda M. Baker, and Joseph J. Mika. 2002. Library and Information Science Practitioners and Research. Library & Information Science Research 24: 49–72.