



Using Evidence in Practice

Retroactive Collection Development: Gap Identification through Citation Analysis

Kealin M. McCabe
Research and Learning Services Librarian
University of Northern British Columbia
Prince George, British Columbia, Canada
Email: mccabek@unbc.ca

Received: 16 June 2016

Accepted: 19 July 2016

© 2016 McCabe. This is an Open Access article distributed under the terms of the Creative Commons-Attribution-Noncommercial-Share Alike License 4.0 International (<http://creativecommons.org/licenses/by-nc-sa/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly attributed, not used for commercial purposes, and, if transformed, the resulting work is redistributed under the same or similar license to this one.

Setting

The University of Northern British Columbia (UNBC) is a small research intensive university located in Prince George, British Columbia (BC), in BC's central interior. The university opened its doors in 1994, serving as a primarily undergraduate university. Since its inception, it has grown to include 18 different graduate degrees. The university is supported by the Geoffrey R. Weller Library, which serves faculty and students doing research on both local and regional campuses.

Problem

The 2014/2015 academic year marked the 25th anniversary of the university. As a young institution, our library collection, upon analysis, appears quite immature. In the past, comprehensive in-house studies have been conducted relating to our journal collections, specifically in the areas of economics, political science, and international studies. In the process of building our monograph collection,

particular attention had always been paid to the purchase of current items as they relate to course offerings and the research interests of faculty and graduate students. Therein lies the problem. Past evaluations have shown the effectiveness of our journal collection, but we have failed to assess the strength of our monograph collection in these areas and its ability to meet the research needs of our students and faculty.

As is common with most libraries, collection budgets continue to diminish, while the price of materials continues to skyrocket. Librarians must be judicious in their selection process. The abundant funding of the 1990's is no longer occurring, meaning that librarians' approach to collection development must be strategic and purposeful (Knievel, Wicht, & Connaway, 2006). Based on this evidence, the following exercise was undertaken to assess the strength of our current collection and the potential absence of core texts published prior to the library's opening in 1994.

Evidence

Retroactively filling a library's collection is important. A 2013 Western Illinois University (WIU) study sought to identify core journal and monograph titles through the examination of PhD. level syllabi on a national (United States) level (Johnson, Stierman, Stierman, & Clark, 2013). Their analysis showed that 24% of the monograph titles cited in top-tier journals had a publication date of 6-10 years, thus "...showing that currency is not always king" (Johnson et al., 2013, p. 204).

In order to analyze the gaps in our collection at UNBC, we used the following process. Thompson Reuters Journal Citation Reports (JCR now InCite) was used to identify high impact journal titles within the discipline of economics. This list was further refined through the examination of each publications' scope to determine relevancy, which narrowed the list to 20 journal titles within the area of development economics. The bibliographies of the 50 most cited articles were examined within each high impact journal to identify monograph titles. The year of publication for the high impact articles ranged from 1956-2014 with a median date of 2001.

In total, 1000 bibliographies were examined resulting in the identification of 11,800 monograph titles. Exclusion criteria were applied to remove reference texts (e.g. dictionaries, handbooks, encyclopedias), government documents, bulletins, and conference proceedings from the results.

EndNote Desktop citation management software was used to manage the bibliographic records of identified monograph titles. The titles were either exported directly into EndNote or entered manually. In instances where articles or their bibliographies were not readily available through our existing collection, the physical items were requested through interlibrary loans (ILLs).

Classification of publication recency was based on Fasa'e's (2012) categorizations, as illustrated below in Table 1. Of the identified titles, 43% (n=5,044) were cited two or more times. The average year of publication for these titles was 1983. The findings indicate that within the discipline of development economics, 78% of the cited monograph titles are classified as "not recent", indicating that older texts play a vital role in informing experts during the research process.

A list of monograph titles cited 4 or more times (n= 329) in the literature was compiled and compared to the library's current holdings. The titles on this list were designated as being "core" titles necessary for a strong collection. Of these titles, 49% (n=161) were not in our collection.

This process was then applied to faculty publications and graduate student theses. Analysis of these publications confirmed the above findings. Faculty publications and graduate student theses relied on monographs with a publication date of 16 years or more, 36% and 44% respectively, thus confirming the

Table 1
Recency Classification ^a

Recency Classification			
Year	Recency	No. of Citations	Percentage
< 5 years	Very Recent	91	2%
6 - 10 Years	Recent	214	4%
11-15 Years	Not Very Recent	805	16%
16 Years +	Not Recent	3934	78%
Total		5044	100%

^a Classification based on Fasa'e (2012).

importance of older texts in the research process.

Implementation

Given the evidence, current funds already allotted to the purchase of monographs was used to fill the gaps. Monograph funds are allocated to disciplines taught at the university. Due to the interdisciplinary nature of the field of development economics, funds from the other disciplines (political science and international studies) were used. This was done without compromising or undercutting one discipline's fund. All 161 titles were purchased using existing funds. It is important to note that 69% (n=111) of the titles purchased were originally published prior to the university opening its doors.

Outcome

The outcome of this study will only become evident with time. To measure the impact of retroactive collection development, the following measures are being proposed. Circulation of the retroactively purchased titles will be monitored to measure their impact and use in addition to tracking citations in student theses and faculty publications. Further attention will also be paid to requests placed via our ILL service. In addition to this, we will continue to monitor ILL requests for titles of monographs being requested within the discipline of development economics.

Reflection

Overall, this process has allowed us to develop a core collection as determined by the experts within development economics instead of relying on traditional book reviews and the occasional patron request. The analysis allowed us to see how influential older texts are in the creation of new scholarship. The overall methodological approach for this project provided great insights, but a few issues were encountered during this comprehensive study. The

collection of data was labour intensive and time consuming. Bad data was problematic where the records contained incorrect information. This meant that much of the data exported had to be manually manipulated in order to be used. Humans are not perfect and neither are their bibliographies. Many articles referenced items incorrectly, including errors in author names and dates of publication.

This study relied heavily on the Web of Science database. While the records for journal article citations were generally accurate, the citations for cited monographs were rife with errors and oftentimes incomplete.

The study began by utilizing RefWorks as the citation management software, which was user friendly and allowed for the import of duplicate records, which was key to the completion of this study. One of the major obstacles encountered during this time was the library's decision to discontinue its subscription to RefWorks in favour of EndNote Web. This meant that the records already collected had to be exported to EndNote and that extra care had to be taken when continuing to export records, as EndNote does not allow for duplicates in the same library. This meant that a new process for importing and organizing bibliographic records had to be undertaken in order to ensure that duplicates were recorded accurately.

This approach would prove useful in identifying key reference texts that should be purchased or subscribed to on an ongoing basis. Reference texts are oftentimes very expensive and measurement of their use can be difficult, to say the least. The process of exploring the extent of their use through expert citations could prove useful in ensuring that libraries are purchasing titles that are of high caliber and value. While reference texts were excluded from this study, their inclusion could have proven useful in identifying heavily used items that are worth collecting.

This process works well for the exploration of a small and focused area of a collection, specifically, sub disciplines like development economics. This process would not be appropriate to use for a broad sweeping analysis of a collection area in a larger discipline. This type of analysis would be useful in instances where in-depth knowledge of the collection is necessary such as budget requests, the development and support of new advance degree programs, external reviews, or in instances where a college transitions to a degree granting institution.

Overall, the evidence collected emphasizes the importance of retroactively filling your book collection for new academic libraries. It demonstrates that emphasis should not be placed on electronic access to journals and the purchasing of newer titles alone. The results of this evidence informed assessment indicate that equal weight should be given in the purchase of older and well-established titles in the creation and maintenance of a well-rounded collection.

References

- Fasae, J. K. (2012). Citation analysis of dissertations and theses submitted to the Department of Agricultural Economics and Extension, Federal University of Technology Akure, Nigeria. *Library Philosophy and Practice*. Retrieved from <http://digitalcommons.unl.edu/libphilprac/>
- Johnson, D. T., Stierman, J. K., Stierman, J. P., & Clark, B. F. (2013). Using syllabi to determine the core journal and monographic literature in doctoral finance programs. *Journal of Business & Finance Librarianship*, 18(3), 191-207. <http://dx.doi.org/10.1080/08963568.2013.794666>
- Kniewel, J. E., Wicht, H., & Connaway, L. S. (2006). Use of circulation statistics and interlibrary loan data in collection management. *College & Research Libraries*, 67(1), 35-49. <http://dx.doi.org/10.5860/crl.67.1.35>