Evidence Based Library and Information Practice

Low Response Rate and Other Factors Render Academic Health Science Library System Study Ungeneralizable

A Review of:
Folb, B. L., Wessel, C. B., & Czechowski, L. J. (2011). Clinical and academic use of electronic and print books: The Health Sciences Library System e-book study at the University of Pittsburgh. *Journal of the Medical Library Association, 99*(3), 218-228. doi:10.3163/1536-5050.99.3.009

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Abstract

Objective – To determine the factors, barriers and facilitators, preference, and intended use of e-book compared to print book usage by all patrons in a health science library system, which serves a university with health science degree programs and a hospital system.

Design – Two online surveys.

Setting – University of Pittsburgh Health Sciences Library System, which includes the University of Pittsburgh's six schools of health sciences (medicine, dental medicine, nursing, pharmacy, public health, and rehabilitation) and the University of Pittsburgh Medical Center hospitals and programs.

Subjects – All health sciences library system users, including faculty, researchers, clinicians, residents, fellows, employees, and students.

Methods – Two versions of the survey were deployed in 2009 using Opinio. There were 46 questions for the University of Pittsburgh Medical Center (UPMC) survey and 47 questions for the University of Pittsburgh (Pitt) survey. The surveys were pilot tested by Health Sciences Library System (HSLS) librarians and graduate students in a survey methods class. The survey was edited based on the feedback provided and received institutional review board approval as an exempt study.

A total of 5,292 email addresses were randomly selected by SPSS from a pool of

9,472 UPMC and Pitt patrons registered with a HSLS remote access password; 2,684 patrons from UPMC and 2,608 patrons from Pitt were selected. HSLS librarians were excluded from the survey. Participants were emailed a link to the survey in March of 2009. Three email reminders were sent at five day intervals. Data was collected for 22 days and exported from Opinio to SPSS statistics software. Survey results were analyzed using basic descriptive statistics and cross-tabulations.

Main Results – Of the 5,292 emails sent, 979 surveys were submitted and 871 were completed fully. The 108 partially completed the surveys were analyzed using pair wise deletion. All HSLS user groups were represented and all rated their confidence in computer skills high. The mean age of respondents was 39.9 with the majority of respondents being female.

Of the 871 completed surveys, over half (55.4%) of the respondents reported using HSLS e-books: 66.7% men and 54.9% women. HSLS e-books were used for in-depth reading by 53.4% of men and 36.8% of women. At UPMC, 70% of attending physicians, interns, residents, fellows, and Pitt postdoctoral/fellows use HSLS e-books. The primary use of the e-books was for clinical care, by 75.3% of attending physicians; 86% of interns, residents, and fellows; and 38.9% of nurses. HSLS e-books are also used by 61.8% of respiratory care and physical therapists, 28.6% of administrators, and 56.8% of researchers.

At Pitt, 73% of postdoctoral students or fellows and 64.7% of faculty used HSLS e-books. The primary use of the e-books was to support research. 76.5% of postdoctoral students and fellows and 54.1% of faculty used e-books for this purpose. Only 21.3% of faculty assigned e-books for class readings. Though 14% of undergraduate and 33.5% of medical students responded that they had been assigned readings from e-books, 51% of undergraduates and 62.1% of graduate and medical students used an e-book to complete an assignment.

Over half (65.5%) of respondents saw information about HSLS e-books on the HSLS website and 55.4% of respondents used an HSLS e-book. When using an e-book, 56.6% look up brief, factual information while 41.9% use e-books for in-depth study.

Uses of HSLS e-book search tools were rated: the federated full text search tool was used by 67.2% of respondents and 74.3% of those who use this tool rated it as moderately to extremely useful. Google books and the library catalog were also rated moderately to extremely useful by respondents. The catalog received the lowest rating of the HSLS e-book search tools.

More respondents (95.4%) use the library's website than come to the physical library (63.8%); however, 66.9% say they use both the website and physical library. Of the 63.8% of respondents who came to one of the HSLS libraries, 67.2% borrowed or used a HSLS print book. When using a book at the library, 23.4% only use print, 14.8% only use e-books, 44.7% use both, and 17.1% use neither. Fewer respondents (46.4%) agreed or completely agreed they could locate an e-book compared to those who agreed or completely agreed they could locate a print book (66.7%).

Nearly half (45.3%) agreed that both HSLS e-books and print books were accessible where they needed to use them; however, only 27.9% agreed or completely agreed that they had time to go to the library and use a print book when they needed it. The closer a respondent worked to the library the more likely they used the physical library. Those also within one block of the library were greater users of HSLS e-books (67% of respondents) than those who worked more than two blocks from the library (52.3% of respondents). When respondents did come to the library, 84.3% used a HSLS print book in the past year and 64.7% used an HSLS e-book. Of the respondents who did not have time to come to the library, 55.3% used a HSLS print book and 55.3% used a HSLS e-book.

When using e-books, respondents preferred such features as printing, saving, and searching over features such as bookmarking,

highlighting, and annotating. Respondents also preferred e-books for general reference and pharmaceutical reference, and print books for textbooks and handbooks. A finding of significance is that "those preferring print were more flexible about using e-books than those preferring e-books were about using print" (p. 224).

Conclusion – HSLS e-book use varied depending on the respondent's role at their institution (e.g., clinical physician, researcher) and type of book (e.g., reference book) they used. The heaviest HSLS e-book users were students, postdoctoral fellows, researchers, and clinical physicians. Respondents who used HSLS e-books most often were also those who used print books most often, and respondents within one block of the library were some of the heaviest HSLS e-book users. Respondents felt that reference and pharmaceutical books were more suitable as e-books. Also of note was that though faculty were not using e-books heavily for assigned readings, students were using HSLS e-books to complete assignments.

The greatest drive to choosing between a print and e-book was the respondent's information need and which book format was most convenient to access at that time. Respondents were flexible in their use of print books and e-books: respondents "would be willing to use a less preferred format if it were more convenient at the time of need" (p.226). In light of respondents' flexibility between e-book and print book usage, the authors suggest that collection development librarians could reduce the duplication of book formats.

Regarding awareness of e-books, survey results from this study were comparable to that of other studies. Also, the respondent's comments indicate that the survey itself prompted e-book awareness: respondents felt that more advertising of e-books should be done. Such responses show that passive advertisement of e-books though the library's catalog and on the website are not enough. E-books should be advertised during library instructional sessions.

Respondents also prefer Web access to HSLS e-books as well as the HSLS federated e-book search rather than to access HSLS e-books from the library catalog. The authors' recommendation is to make sure users can easily access e-book catalog records through the Web in order to best facilitate patrons' use of e-books.

Despite the conclusions that were drawn, there were several limitations of this study. Though the sample size was large enough and all HSLS users were included, the response rate was very low. Bias could be an issue as well: non-response bias as well as an overestimation of the number of HSLS e-book users could be contributing factors to the low response rate. In addition to the small sample size and possible bias, the lack of completed responses (11%) was also a concern. Finally, respondents expressed confusion over how "e-books" were defined in the survey. Because of these issues, results of this survey may not be generalizable to other libraries.

Commentary

This study offers valuable insights into the e-book and print book usage of health science library system users; however, there are various aspects of the study that are cause for concern. First, there are various writing errors within the study. "UPMC" is never defined in the article; a search on the UPMC Web site followed by a phone call to UPMC was required to determine that UPMC was the "University of Pittsburgh Medical Center." There is also no consistency in describing "University of Pittsburgh;" it is referred to as either "University" or "Pitt." There is also inconsistency in the respondent type "physician;" the labels "attending physician," "clinical physician" and "physician" are used interchangeably.

The methodology of the study is also problematic. The authors do not discuss why there are different number in questions for UPMC and Pitt. The survey questions were also tested on graduate students as opposed to a sample of library users the study was

targeting. Perhaps if the questions were tested on such a sample group the issue of confusion over the definition of e-books could have been avoided. Though the authors acknowledge the study's low response rate, it is of a major concern: the authors estimated that they would have a 25% rate, but only 16.5% of their sample completed the survey. The authors believed that an email cover letter from the director and three email reminders to be enough of an incentive for respondents to complete the survey; however, it clearly was not enough.

A unique feature of this study was the variety of users they surveyed. Though surveying all of these users may provide the institution with a comprehensive view of how e-books are being used, this also causes the study to become ungeneralizable. Few other institutions may have the same user population as Pitt. Also, there is an overwhelming amount of data. It is a challenge to digest this much information in a single article. It would have been beneficial to break this study up over several articles or to only survey one patron population at a time.

Despite these drawbacks, this study does provide valuable data on how different health science patrons use e-books compared to print books. Large academic health center collection development librarians may find this study's findings beneficial in making their own determinations for e-book vs. print book purchases.