

Making a Commitment to EBLIP: The Role of Library Leadership

There is widespread agreement within the library profession on a number of fundamentals related to Evidence Based Library & Information Practice (EBLIP). First, librarians should practice what they preach and base their information practice decisions on the best possible evidence – the principle we advocate for library users. (1,2,3,4) Second, the body of evidence does not exist to make finding evidence in the literature a realistic possibility in most cases. (5,6) Third, many practicing librarians are not comfortable designing and conducting their own research. (6) And fourth, employers need to create conditions that encourage research in the workplace. (7,8,9)

The responsibilities of employers listed by Hallam and Partridge in their article “Evidence based library and information practice: whose responsibility is it anyway?” (7) implied an enabling role rather than an active one for employers:

- Provide opportunities and resources
- Encourage ongoing learning to maintain or develop skills
- Provide training opportunities for LIS students
- Advise LIS educators on needs
- Serve as guest lecturer for LIS programs
- Include evidence-based practice as part of staff appraisal
- Encourage more experienced staff to mentor novices
- Provide opportunities for collaboration with academic researchers

We see employers taking a more active role than is suggested by Hallam and Partridge. In today’s complex information landscape, health science librarians are expected to support evidence-based practice for clinical and research staff in their larger institution. Increasingly they are also expected to engage in evidence-based information practice in order to hone their own customer service research skills as well as inform their practice-related decision-making. Libraries are routinely required to conduct studies to assure they are meeting the needs of users, the expectations of their parent organization, to support continued funding and in some cases to justify their very existence. These

include customer needs assessments and satisfaction surveys; usability studies; program evaluation, outcomes and impact studies; systematic performance measurement approaches such as the “balanced scorecard”; cost/benefit and trend analyses. While hiring an outside consultant is an option for large-scale studies, employers also need staff with the knowledge and skills to design and conduct studies for the type of questions that arise in the routine practice of librarianship.

Crumley and Koufogiannakis (8) categorized “librarianship questions” as falling into one of the following six domains of practice:

- Reference/enquiries – providing services and resources that meet the needs of users
- Education – finding the best methods to educate users
- Collections – building high-quality collections that meet the needs of users
- Management – managing people and resources within the organization
- Information access & retrieval – creating better systems
- Marketing & promotion – promoting libraries to users and non-users

Questions in all these domains had arisen at the National Institutes of Health (NIH) Library in recent years. The NIH Library, with a staff of 56 full-time employees and 20 contractors, serves a major U.S. government agency that conducts translational bench-to-bedside research. NIH has over 20,000 employees, about half of whom are in the scientific and clinical positions that constitute the Library’s primary user group. These users include researchers and fellows in the laboratories and clinics as well as the science administrators working in the various grant administration programs. The NIH Library’s virtual services and collections are comparable in size and scope to a large biomedical library.

As we know is frequently the case with busy practitioners in health care (10), practice-related questions encountered at the NIH Library were also often left unanswered. Very few were addressed and those usually through a user survey - a large scale rigorous biennial user study or small targeted web or print surveys. We recognized that this

needed to change; limiting ourselves to surveys would not produce answers to many of our questions. Reinforcing this, in 2004 we commissioned a consultant to conduct an environmental scan of the NIH in preparation for a complete revision of our strategic plan. Influential stakeholders at the highest levels within NIH were interviewed as part of the scan. One of the key findings was that the library staff needed to be conducting its own research. As a result, evidence-based information practice is a major focus of the Library's vision statement in the 2005-2009 strategic plan.

To create the conditions that make this vision a reality, the library leadership team planned and implemented a systematic approach to fostering EBLIP. The goal was to enable staff to routinely apply evidence in decision-making. They concluded that an environment supportive of EBLIP would include support and release time for research projects, formal training in research skills, and team mentoring as projects evolved. Recognition for staff efforts and accomplishments was considered as well. A celebratory Library Research Festival Day was discussed and librarians would be encouraged to submit their projects for presentation in the larger annual NIH Research Festival.

It was determined that 38 people on staff were in positions that had potential to benefit from EBLIP training. Their work raised answerable library type research questions or they were in positions best suited to answer them. A survey of these 38 individuals revealed the following profile. A number have scientific research experience and 14 were informationists, that is, expert searchers with subject knowledge who routinely engage in critical appraisal of the scientific literature. Well more than half have working experience with research initiatives. [Table 1-2] However, few if any had ever designed the type of study "librarianship questions" required. All 32 librarians, 4 of the 10 library technicians, and 2 of the 4 IT professionals on staff wanted a basic introduction to EBLIP and quantitative and qualitative research methods used to answer these types of questions. (Because of leave status, 33 of 38 participated in our survey.)

NIH Professional Library Staff Education and Experience		
	Respondents (n=33)	Percent
Terminal Degree(s)		
BA/BS	4	12%
MLS	27	82%
2 nd Masters	5	15%
Ph.D.	2	6%
Training		
Graduate-level Research Methods	20	61%
Graduate-level Advanced Research Methods	7	21%
Statistics	9	27%
Research/statistics CE	13	39%
Experience		
Research Study lead	7	21%
Research Study participant	18	55%

Table 1. Staff education and experience related to research. Some staff members have more than one degree, training, and/or experiences so totals are greater than *n*.

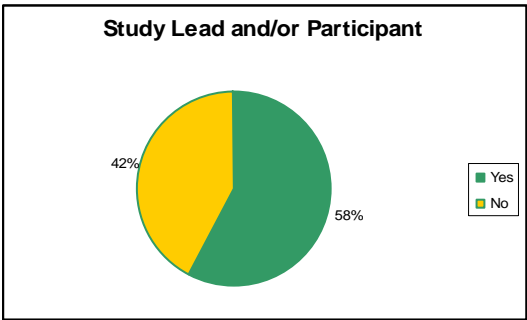


Table 2. 19 of 33 staff reported prior roles in research studies, as study lead and/or as research team participant.

In addition, to understand what would help inspire NIH library staff to perform EBLIP research we asked about the environmental and/or administrative factors that are most important to these staff. Participating staff were given 8 variables that might affect their motivation to perform EBLIP research, and asked to rank these in importance. Training was most valued, as were opportunities to collaborate with fellow staff members and

opportunities to present at professional meetings. Time was also highly valued by some, although overall it fell into the middle range of the rankings. The least motivating factors were special funding, presentations to other library staff, and including research as a performance appraisal metric. [Table 3]

Motivational Factors for Doing EBLIP Research		
	Percent Ranking as 4-5 (n=33)	Overall Rank Order
Training	64%	4.84
Opportunity to collaborate with library staff	61%	4.60
Opportunity to present at professional meetings	58%	4.52
Release time	45%	3.68
Mentoring	39%	3.96
Opportunity to present to other library staff	33%	3.84
Inclusion in performance appraisal	33%	3.68
Special funding	21%	2.80

Table 3. On a scale of 1-5, with 5 as most important, staff rated these motivational factors.

Prior to developing a training plan, which was most highly valued by NIH library staff participating in the EBLIP initiative, we first identified several of the librarianship questions that arose in the previous 6 months. They were [Table 4]:

Recent Practice Questions at the NIH Library	
Domain	Initial broad question
Information access & retrieval	1. What do researchers want in a federated search engine?
Marketing	2. What is the best way to introduce a new service or resource?
Reference	3. Did new policies in document delivery services affect user satisfaction?
Management	4. Is the use of paraprofessional staffing at the Information Desk a good management decision?
Reference	5. What is the effect of having an informationist assigned to a research team?
Collections	6. Are we spending limited monographic dollars on the right books?

Table 4. EBLIP questions as categorized by Crumley and Koufogiannakis' practice domains.

After selecting the questions they would pursue, EBLIP program participants attended a training session that provided an overview and rationale of the characteristics of evidence-based research for information practice; and outlined the steps involved - posing the question, selecting the methodology and study participants, analyzing the data and reporting the results. Using a Research Jumpstart Worksheet that took them through the steps in the research process, participants broke into small groups to develop their research questions. After the training, four teams worked individually with the instructor to further refine their questions and consider possible methods. The instructor was available to these groups by e-mail, phone and in person in the months following to respond to questions and monitor progress – to help them over hurdles.

Most participants were familiar with quantitative research methods such as surveys or data analysis, both of which had been used previously. Teams that employed these methods got their studies underway almost immediately:

<p>Q-3 refined: Did selective purchase of articles vs. borrowing from other libraries impact user satisfaction with document delivery services?</p> <p>Background: The NIH Library provides an active document delivery service for NIH researchers. A customer satisfaction survey is conducted annually. As a result of the last survey, new policies were implemented to allow for selective purchase of articles from vendors in order to expedite turn-around time.</p> <p>Subjects: Current document delivery customers ($n = 1,138$)</p> <p>Methodology: Program evaluation using a comparative study of customer satisfaction as measured by an online survey administered for 2 weeks in December 2005 and for 2 weeks in March 2007.</p> <p>Preliminary Findings: To be reported at conference.</p>

<p>Q-4 refined: Did the transition in 2006 to paraprofessional staffing at the Information Desk affect user satisfaction and/or staffing efficiencies?</p> <p>Background: About 825 questions are received at the desk each month, but only a small percentage of these questions require a librarian. In 2006 a new structure for staffing the Information Desk was introduced to increase reliance on paraprofessional staff. The new structure freed librarians to attend to other work in their offices but are “on call” to the paraprofessional staff when needed.</p> <p>Subjects: NIH onsite customers Feb 1-28, 2007; paraprofessional and reference on-call staff during same time period.</p> <p>Methodology: Program evaluation study with two components: a) comparative study of customer satisfaction with information desk services (2007 as compared with 2006); and b) cost/time analysis by sampling reference staff support of desk services.</p> <p>Preliminary Findings: To be reported at conference.</p>

Q-6 refined: Which subject areas of print monographs are the most frequently used at the NIH Library?

Background: The NIH Library adds ~1,000 volumes per year to its book collection at an annual cost of \$100,000. The print book collection is supplemented by ~1,500 books borrowed annually through interlibrary loan. At the same time, in-person use of the library has declined dramatically and costs of electronic resources have continued to rise, pressuring libraries to carefully weigh investments in print collections.

Subjects: This study examined monograph use at the NIH Library.

Methodology: A baseline retrospective cohort study of monographic collection use was conducted by examining 2006 circulation and interlibrary loan borrowing records in the Library's integrated library system. Usage data were analyzed by subject area. To determine whether the 2006 circulation was characteristic of earlier collection use patterns, these data were compared against the total circulation use of collection items since the implementation of the ILS in 1987.

Preliminary Findings: To be reported at conference.

In contrast to the quantitative studies, EBLIP questions best answered using qualitative research methods raised the level of discomfort among staff participants. In the past a consultant had been hired to conduct focus groups, but in her last report, even she said we should be doing our own qualitative data gathering on a routine basis. Further, for the past 3 years we had tried to evaluate the informationist service using focus groups and web or telephone surveys, but with mixed results. We thought some other qualitative research method might be useful, but were not sure which would work best.

Because conducting and analyzing qualitative research was so foreign to most librarians on staff, for those whose research design called for a qualitative research method and others who could use the methods in future studies, we decided in-depth training was necessary. Training included opportunities for 20 participants to design and implement practical applications for these skills; opportunities to practice the various methods; and assistance with techniques for data collection, organization, and analysis. In addition, the consultant/trainer used a participatory strategy to design and lead two demonstration projects with library staff using the techniques of key informant interviewing and observation. The demonstration projects were intended to give participants experience with all aspects of an EBLIP study from developing the research question to data analysis and reporting of results. Further, as needed by NIH Library staff conducting their own studies, the consultant continued to be available in person, by phone or by e-mail for consultation.

Two of the questions identified earlier were further refined as follows:

Q-1 refined. What features and capabilities do NIH researchers want in a federated search engine?
Background: A recent information needs assessment indicated that NIH researchers overwhelmingly use the NIH Library's website before Google and other standard search engines. For the library's website to remain the first place for information searching, the website must include state-of-the-art functionalities including a robust search engine that matches researchers' needs. Proposed Methodology: Exploratory formative research while the search engine is being designed to include focus groups with representative samples of targeted audience groups. Follow-up evaluation of beta product using quantitative and observational methodologies to assess usability. Results: Study is still underway.

Q-5 Not refined. What is the value of an informationist assigned to a research team?
Background: The Informationist concept, proposed in 2000 by Davidoff and Florance, lacks scientific validation. The NIH Library initiated its informationist service in 2001 with 2 informationists. There are currently 14 informationists working with 38 research groups in 15 NIH institutes and centers and 4 groups in 3 other HHS agencies supported by the NIH Library. NIH informationists now have 1-6 years experience as research team members. Preliminary Methodology: Exploratory research to identify research questions via a volunteer sample of NIH informationists using the diary method to record critical incidents related to their work both retrospectively and prospectively. Results: Study is still underway.

Since one of the objectives of doing evidence based research is to share findings as well as apply them, a Library Research Festival day, where results of the various research projects can be shared with others on staff, was planned for the spring of this year. Only the quantitative studies were presented at that time, since training in qualitative methods was still underway. However, both quantitative and qualitative studies will be encouraged to present their findings to a broader audience. Each year in the Fall, NIH holds a 3 day Research Festival to showcase the research being done by staff in all the institutes and centers. Poster and paper sessions are scheduled throughout the 3 days of the Festival. Reports of these library projects will be submitted for presentation as part of this NIH-wide event.

Conclusion

Employers can and should do more than enable and encourage their staff to engage in evidence-based practice. It is to the benefit of the employer as much as the employee that valid answers are found to the questions that arise in practice. The NIH Library experience is an example of a staff development program designed to provide practitioners with the skills to design and conduct a variety of quantitative and qualitative research studies that will answer “librarianship questions”. It has -- and continues to -- provide opportunities for staff to work collaboratively and practice applying research rigor to real questions under the guidance of an experienced library researcher. Since the opportunity to present findings to a broader audience is a prime motivation for engaging in research, this program also included opportunities to present findings outside the Library setting.

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