

# Aligning Library Instruction with the Needs of Basic Science Graduate Students

Donna O'Malley, MLS and Frances Delwiche, MLIS  
Dana Medical Library, University of Vermont, Burlington, VT 05405

## Objective

To replace the library's current model for basic sciences graduate student information literacy instruction, consisting of brown-bag workshops, private tutorials, and brief orientations, with an entirely new model designed specifically to address the needs of this patron population.

## Methodology

The design process for the new model included:

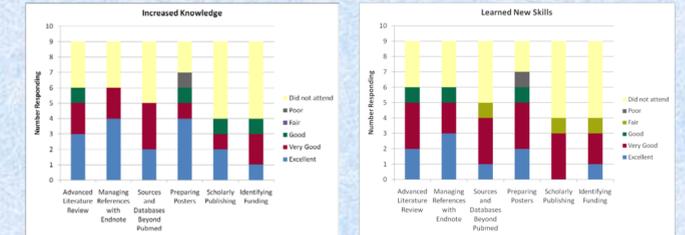
- Consultation with faculty members from seven different departments to garner suggestions for content and scheduling.
- Creation of a cohesive curriculum to cover the entire research process, with separate units that could be attended individually.
- Creation of a dedicated website that would remain accessible after conclusion of the series.
- Video-taping of session content for patron viewing at their leisure.
- Recruitment of content experts from outside the library to provide context and credibility.

## Results

Library workshop attendance in 2010 compared to previous years.

	# Attendees Average Fall 2006-2008	# Attendees Fall 2010
Graduate Students	8	70
Faculty	3	33
University Staff	6	4
Hospital Residents	1	22
Hospital Nurses	2	9
Total	20	138

Survey of attendees at conclusion of series



Sessions that increased students' knowledge also increased their skills, but some sessions were more successful than others.

Additional observations

- Almost all attendees came to the sessions with at least one colleague.
- Throughout the poster-creation demo, attendees were able to follow along easily, despite the instructor's rapid manipulation of the software.
- Videotaping did not adequately capture the computer screen projection, though audio quality was satisfactory.

In the new model, librarians at Dana Medical Library addressed three important findings from a 2009 study<sup>1</sup> at the Library:

Findings from previous study	Applicability to new model
<p>Instruction that is focused on specific resources, especially licensed library resources, and proceeds in a strictly linear fashion is generally not effective.</p>	<p>The literature review process must be viewed as a non-linear, dynamic process that involves the use of multiple resources, both library and non-library.</p>
<p>Basic science researchers are highly collegial, with graduate students learning much of their searching skills from their peers and mentors.</p>	<p>The library moved from its traditional communication methods to more innovative marketing strategies that took advantage of the inherent collegiality of the basic science researchers and graduate students.</p>
<p>Despite possessing advanced literature searching skills, basic science researchers nevertheless have knowledge gaps in key areas that can be effectively addressed through appropriate instruction.</p>	<p>Assuming a sound foundation in information literacy skills, librarians identified knowledge gaps and persistent problems, and tailored instruction to address those areas.</p>

Activity-centered content focused on real-world activities and real-world issues.

Team-teaching, pairing up with non-library instructors in their areas of expertise.

Sessions scheduled on multiple days to accommodate irregular schedules.

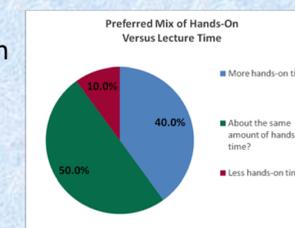
### Funding To Publication Workshop Series, Schedule of Sessions

Session Title	Description	Instructors	Dates/times
Orientation	Introduction to Dana Medical Library resources and services. Includes logging on to the network and accessing resources remotely.	Librarians	Sep 15 12-1 pm Sep 16 12-1 pm
Advanced literature review skills	Discover expert search techniques to refine and focus your literature searches. Use MyNCBI to set up e-mail alerts, and to save search strategies, bibliographies, and settings.	Librarians	Sep 22 12-1pm Sep 23 12-1pm
Managing references with EndNote®	Create a list of references in EndNote®, download records from online database, and insert references into a manuscript using EndNote® and Microsoft Word.	Librarian	Sep 29 12-1 pm Sep 30 12-1 pm
Beyond PubMed	Explore other high-quality databases and information sources in the biomedical sciences.	Librarians	Oct 06 12-1pm Oct 07 12-1pm
Preparing a Scientific/Academic Poster	Learn guidelines for creating legible, attractive, and effective scientific posters. Identify sources of medical images and discuss associated copyright issues.	Librarian, Medical Photographer	Oct 13 12-1pm Oct 14 12-1pm
Scholarly publishing	Evaluate approaches to assessing journal quality, determine author's rights, and explore alternative publishing models.	Librarian, Professor of Microbiology	Oct 20 12-1pm Oct 21 12-1pm
Identifying funding	Learn to use the grant-seeking and grant-writing resources available to you at UVM.	Office of Sponsored Programs Researcher	Oct 27 12-1pm Oct 28 12-1pm

The new model was implemented in the fall of 2010, coupled by a vigorous and targeted marketing campaign. As a result, considerably more graduate students attended library instruction sessions in fall of 2010 than in an average of the previous three fall semesters. The new model for library instruction also appealed to new faculty and hospital residents and nurses preparing to launch research projects.

Survey of attendees after two class sessions

Though librarians were concerned the ample hands-on practice time would not leave enough time to cover pertinent material, most attendees indicated they were satisfied with the format.



The resulting faster pace of instruction also proved to be suitable for this group. In spite of a condensed description of MeSH, eight out of nine students responding to the survey were able to correctly answer the question about mapping to MeSH terms.

Most attendees expressed satisfaction with content of the sessions, although one would have preferred a broad overview of the literature review process, rather than a demonstration of specific search techniques.

## Conclusions

A major revision of the planning, delivery, and assessment of library instruction for basic sciences graduate students increased the total number of attendees, as well as the number of graduate students attending. Consultation with faculty on content and scheduling was helpful in identifying graduate students' needs. Offering each session on two consecutive days allowed the series to reach more students. Future plans include computer screen recording of sessions rather than videotaping, and revision of the content of several of the sessions. Although the new model needs additional refinements, it is clear that it was more successful at reaching the target audience than the previous model.

## Reference

Haines LL, Light J, O'Malley D, Delwiche FA. Information-seeking behavior of basic science researchers: implications for library services. J Med Libr Assoc. 2010 Jan;98(1):73-81. PubMed PMID: 20098658; PubMed Central PMCID: PMC2801986.