

## **In it for the Long Haul: Lessons from a Decade of Assessment**

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*This is an Author's Original Manuscript of an article whose final and definitive form, the Version of Record, has been published in the Journal of Library & Information Services in Distance Learning, 7:111–142, 2013 [copyright S.E. Searing], available online at: <http://www.tandfonline.com/doi/full/10.1080/1533290X.2012.705684>.*

### ABSTRACT

This paper analyzes student evaluations of library orientation and information literacy instruction over a ten-year period, 2002 to 2011. The survey respondents were five hundred students who were taking or had just completed their first course in LEEP, the distance education option of the M.S. program at the University of Illinois. This case study describes the LEEP program and library services for it, focusing on the librarian-led information literacy activities that are integrated into the students' initial ten-day on-campus residency. Student-centered assessment data has informed decisions to modify, replace, or retain components of the information literacy program, as several examples illustrate. This case study re-visits three factors identified in an earlier analysis as influencing both the demand for library services and their successful provision. Finally, this study examines the assessment process itself and shares insights about response rates, multi-year data, small-scale evaluation, and the pros and cons of self-reporting.

### BACKGROUND

By now everyone has heard the mantra: assess, assess, assess. No one engaged in the provision of academic library services, especially information literacy services, can fail to appreciate the value of systematic program evaluation and sustained cycles of continuous improvement. However, as budgets tighten, staffs shrink and workloads increase for those who remain. Systematic assessment—especially the gathering and analysis of feedback from users—may suffer in the face of other priorities. Yet paradoxically, with fewer resources to support library services, assessment is more critical than ever to assure the best use of those limited resources, including the finite supply of librarians' time and attention.

This case study demonstrates how a cyclical assessment process generated data for improving library instruction within one academic department. Annual student evaluation data for the decade of 2002 through 2011 from a small-scale, multi-faceted information literacy program at the University of Illinois, Urbana-Champaign (UIUC), reveal trends and anomalies in the reception and effectiveness of the program. The program serves online students pursuing a master's degree at the Graduate School of Library and Information Science (GSLIS). Analysis of the evaluative data by the Library & Information Science Librarian at UIUC has affirmed the program's instructional goals and prompted modifications to the content and delivery of both face-to-face and web-based teaching. In short, the survey data has empowered the LIS Librarian to experiment confidently with instructional strategies that directly respond to students' experiences and expressed needs.

(The library program under scrutiny in this case study is actually a cluster of orientation and information literacy activities and materials that are targeted at a specific population of distance learners in an online degree program called LEEP. The individual components of the library program evolved and coalesced over time, and thus the construct of "program" is somewhat artificial. For this reason, and to

avoid confusion between the library program and the academic program which it supports, the information literacy program will be referred to herein as “LibLEEP.”)

The challenge of collecting data over time is, obviously, that the objects of study are constantly changing. The M.S. program which LibLEEP supports was, and is still, evolving. Its curriculum, student population, educational technologies, and internal culture have all changed in the ten-year period discussed here. These changes will be summarized in a subsequent section. This case study documents a parallel evolution both in LibLEEP and in the content and mechanics of assessing it. Although student evaluation surveys have been conducted since 2002 and have generated valuable data, there are only a few variables for which a full decade of continuous data exists, because the survey instrument has been modified over time to reflect changing circumstances.

This paper will: briefly review the relevant literature on the assessment of information literacy instruction; provide basic background on the LEEP program at UIUC; and explain the goals and design of LibLEEP. Distinct elements of LibLEEP will be evaluated in light of student survey data. Observations about LIS distance education that were reported in an earlier article (Searing 2004a) will be re-visited to see if the evaluative data support them. Finally, insights about the assessment process itself will be shared.

## LITERATURE REVIEW

There is a vast amount of published information relevant to the topics touched upon in this case study. The author’s thinking has been formed by reading about the genesis and evolution of distance education in LIS; the information needs of graduate students; the development of library services for distant users, especially online users; approaches to assessing library services generally; and broader discussions of the role of subject librarians in fostering discipline-specific information literacy. Unfortunately, very little was published in the past decade about library services to support LIS education in particular, and even less about services for LIS distance education programs. Latham & Smith’s descriptive study (2003) stands alone. They surveyed academic libraries at universities with ALA-accredited LIS programs and examined the libraries’ websites to determine what services were in place to support LIS distant learners. They pointed out the under-utilization of needs assessment and evaluation techniques, and they asserted that “more libraries need to provide feedback mechanisms for their distance learners” (p. 130). Hensley & Miller (2010) surveyed distance learners in nine departments and schools at UIUC, including students in the LEEP program, to gather baseline data about their library use, preferences, and attitudes; their report did not break down their findings by academic program but nonetheless yielded useful information for planning and service provision. Most participants in the study were graduate students, reflecting the demographics of UIUC’s online learning population, and many were unaware of the library services available to them. Other institutional studies of library services for distance education have likewise focused on graduate students, but not LIS students specifically.

Most germane to the present study, therefore, are works about the assessment of library information literacy services and instruction. Recent literature about assessing library instruction focuses overwhelmingly on measuring students’ information literacy and the impact of library instruction on it. “To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information” (American Library Association, 1989). This basic definition encompasses the notion of disciplinary information literacy—in this case, knowing the resources and possessing the searching skills to successfully retrieve and use information in the field of library and information science.

The current emphasis on assessing student learning represents a decisive shift from approaches to evaluating library instruction that were common at the end of the 20<sup>th</sup> century. Surveying academic librarians in the mid-1990s, Ragains (1997) discovered that evaluation tended “to focus upon attendees’ perceptions of the librarian’s performance.” He criticized such “reaction data” as “inadequate to measure student learning, guide programmatic improvements in library instruction, or be used as a basis for librarians’ performance appraisals” (p. 159). Ragains’ indictment echoed through the literature. Similar emphases on student perceptions were uncovered in an analysis of library instruction assessment forms

(Kapoun, 2004). Today, one is hard pressed to find guidance in the current literature for evaluating the nuts and bolts of instructional practice through student evaluations. Summarizing their survey of ARL libraries, Walter and Hinchliffe (2005) did acknowledge that “student feedback is an important component of instructional improvement” (p. 14-15) within a wide array of instructional improvement activities. Veldof (2006), in her guide to one-shot library workshops, borrowed a four-part classification from professional trainers, who distinguish among reaction evaluation (did they like it?), learning evaluation (did they get it?), behavioral evaluation (do they apply it?), and results evaluation (does it make a difference?) (p. 70-71). Over the years, the evaluation of LibLEEP included all four elements, but with a strong slant toward reaction evaluation.

Radcliff, Jensen, Salem, Burhanna, & Gedeon (2007) explain nine techniques for assessing college students’ information literacy, along with reasons to use or not use each one. Although a few examples of affective measures are evident, the emphasis is on documenting students’ acquired knowledge and skills—“learning outcomes”—rather than perceptions or opinions. A great many case studies and research efforts have found the ACRL “Information Literacy Competency Standards for Higher Education” to be a useful framework for measuring information literacy, as well as a scaffold for designing programs and scripting individual class sessions and tutorials (Association of College & Research Libraries, 2000). Neely (2006), for example, employs the standards as a framework for teaching and testing information skills. Oakleaf (2010) maps the ACRL standards to other organizations’ standards for student learning outcomes. For those who assert that genuine assessment must be student-centered, not teacher-centered, the ACRL standards offer a suitable framework with the learner in the spotlight. The author of the present study always introduced the concept of information literacy and the ACRL standards in her presentations to LIS students, aiming to instill in them a meta-awareness of themselves as information seekers. However, the LibLEEP assessment instrument was not structured to measure student *progress* vis-à-vis the standards, but to measure students’ *opinions* about the relevance and effectiveness of the instructional program. In this sense, the feedback constitutes subjective reaction data, but it has nonetheless proved valuable for analyzing and enhancing LibLEEP.

Librarians engaged in information literacy work have progressed from measuring inputs, to measuring outputs, and finally to measuring outcomes, in order to document the library’s vital contribution to the teaching mission of the college or university. Outcomes-based studies serve many purposes. They may be used to justify resource requests, inspire greater collaboration between librarians and academic faculty, or impress stakeholders. Overshadowed in the rush to communicate the library’s part in producing information literate graduates, however, is the original purpose for evaluating library instruction: to improve librarians’ teaching skills and to keep instructional goals and strategies relevant. This prior focus is exemplified by the practical guide, *Evaluating Library Instruction: Sample Questions, Forms, and Strategies for Practical Use* (Shonrock, 1996). In this compilation, very few of the hundreds of sample survey questions assess actual information literacy. Rather, most of the questions address practical matters like the perceived effectiveness of classroom presentations, usefulness of handouts, and librarians’ teaching proficiencies. Merz & Mark (2002) and DeFranco & Bleiler (2003) also compiled model evaluation forms; there have been no similar compilations published in the past decade.

Most writings have emphasized not just the gathering of assessment data, but the uses to which they may be put. In addition to recommending assessment methods, for example, Radcliff (2007) gives advice on analyzing the results and applying them. Likewise, Holliday, Davis and Martin (2010) emphasize using data to improve teaching and learning. An entire issue of *Public Services Quarterly* was devoted to the assessment of information literacy programs with an emphasis on “telling the story of the teaching library” in order to create campus-level awareness of the library’s role in teaching and learning (Walter, 2007). In the context of this thematic issue, Searing (2007) analyzed the first four years of assessment data from the LEEP information literacy program; the present paper extends that analysis.

Despite widely available models for evaluation, a study of ARL libraries reported that only 62% of them had a formal mechanism for assessing their instructional programs (DeFranco & Bleiler, 2003). The situation was worse among ARL libraries providing instruction for distance education students; only 11% conducted formal assessment in this area (ACRL, 2005). However, data from a 2009 survey of

librarians involved in support for distance education shows a brighter picture. Asked “what is in place now to assess effectiveness of distance instruction through libraries?” over half of the 155 respondents indicated some type of assessment activity, either originating within the library or included in broader assessments of distance education. Student surveys and feedback forms were commonly mentioned (ACRL, 2009). Still, published articles on the evaluation of information literacy efforts specifically in the distance education context are rare. Whitehurst and Willis (2009) reviewed the literature on library services for distant learners, with a particular focus on library instruction. They credited anecdotal evidence, along with the quantitative results of a LibQUAL+ survey of distance education students, as drivers for improvement of instruction for distance learners at East Carolina University. They concluded, “In the future, as we meet with more students, physically or virtually, our intention is to illustrate the use of research tools, provide practice opportunities, build confidence, and make them feel comfortable using the library effectively” (p. 27). These objectives mirror those of the information literacy program for LEEP, which is described below.

### THE LEEP PROGRAM

GSLIS offers both on-campus and online courses leading to the master of science degree in library and information science (M.S.) and to the Certificate of Advanced Studies (C.A.S.). The M.S. program requires forty hours of coursework in two required courses and eight or more electives. While there is a significant amount of cross-enrollment, students are admitted to, and are primarily identified with, either the residential or the distance program. In 2011, approximately half of the incoming masters-level students were formally enrolled in LEEP, the distance education option. LEEP (originally an acronym for Library Education Experimental Program) is a blend of learning environments. The weekly, synchronous online classes are supplemented with asynchronous communication and face-to-face on-campus sessions. Every July, approximately 120 new LEEP students enroll as a cohort and spend an intensive ten-day orientation period on the UIUC campus. Students find this introduction to the program to be both intellectually stimulating and physically exhausting. The first cohort labeled it “LEEP boot camp,” and the name stuck.

LEEP boot camp comprises a highly condensed required course (LIS502: Libraries, Information and Society) and several sessions of hands-on training led by instructional technologists and librarians. In LIS502, students acquire a basic knowledge of LIS principles and current issues within the field.<sup>1</sup> To that end, LIS502 incorporates assignments that require the use of library- and internet-based information resources. After LEEP students complete their summer boot camp, they take courses on the normal semester calendar using the Elluminate virtual classroom platform and the Moodle learning management system. In addition to the weekly online meetings, each class holds one day-long, face-to-face session in Champaign-Urbana midway through the semester.

Now in its sixteenth year, the LEEP program is the most successful online learning program at UIUC. Moreover, GSLIS is one of the preeminent graduate LIS programs in the world (Graduate School of Library & Information Science, 2011). LEEP is also distinguished by the degree to which it has been an object of research by faculty and PhD students. Smith, Lastra, and Robins (2001), Estabrook (2003), Haythornthwaite and Kazmer (2004), and Montague (2006), among others, have derived groundbreaking insights about online education from studying LEEP. GSLIS students, teachers, and administrators share a belief that LEEP’s success stems in large measure from the sense of community that is born during the boot camp and nurtured by mid-semester campus visits. Short-term residencies are required by some, but not all, online M.S. programs in LIS. Kazmer (2007) compared LEEP to the M.S. program at Florida State University, which does not require time on campus, and delineated the advantages and disadvantages of each model. Her interviews did not touch upon library access or library instruction, unfortunately.

### LIBRARY SERVICES FOR LEEP

Within the UIUC library, subject specialists and departmental libraries are the cornerstones of service to faculty and graduate students. The full-time LIS Librarian has primary responsibility for collection development, reference, and library instruction for the GSLIS community, both on and off

campus. However, centralized library services also serve GSLIS. Several units cooperate to provide LEEP students and faculty with general reference, interlibrary loan, access services (including course reserves), and an increasing array of technology-based scholarly support services. LEEP students and faculty are encouraged to use the centralized, multidisciplinary live chat reference service but also to pose LIS-specific reference questions directly to the LIS Librarian by email or phone. The LIS Librarian and her assistant maintain daily office hours at the GSLIS building, including on weekends when LEEP students are on campus. Upon request from faculty, the LIS Librarian demonstrates specialized resources during class sessions, hosts web boards within course Moodle sites, and develops LibGuides for specific courses or assignments.

In all the ways listed above, the discipline-focused services provided to LEEP students and faculty are nearly identical to those provided to on-campus students and faculty, who likewise avail themselves of virtual reference, drop-in consultations, and course-integrated instruction. The only domain in which discipline-based services for LEEP students differ noticeably from on-campus students is library orientation and information literacy instruction. Every fall and spring, during the general orientation session for new on-campus students, the LIS Librarian communicates basic information about the library. Approximately two weeks later, the librarian delivers a 30- to 45-minute guest lecture and resource demonstration in a required course which most on-campus GSLIS students take in their first term.<sup>2</sup> This is the extent of the systematic library instruction for resident students, although the LIS Librarian also leads optional library tours “with an LIS flavor,” of which a small number of students take advantage, and one optional workshop on LIS databases, which is also lightly attended. Admittedly, on-campus students have more opportunities for informal learning from peers; in addition, many work in the University Library and receive in-depth orientation to the library as part of their employee training. The formal library instruction components of LEEP boot camp (LibLEEP) are more intensive and are described in detail in the next section.

#### CHANGES IN THE LEEP PROGRAM AND LIBRARY SERVICES, 2002-2011

Successful programs do not remain stagnant; they change, grow, and improve over time. This is certainly true for programs that depend heavily on computer technologies, as both libraries and distance education do. In 2002, when student evaluations of LibLEEP were first collected, the program consisted of three activities. First, a tour acquainted the students with the physical layout and service points of the Main Library, including the separate, full-service Library & Information Science Library within the Main Library building. Second, a hands-on workshop in a GSLIS computer lab introduced them to numerous resources, including the online catalog, electronic course reserves, the LIS Library website, the University Library’s gateway site, and major journal finding and indexing tools for the discipline. A final workshop focused on using library resources from a distance, including how to log in through the proxy server, how to request book and article delivery from the print collections, and how to obtain reference assistance by telephone, email, and online chat. Particular emphasis was placed on differentiating the document delivery services provided by the Academic Outreach Librarian and the reference services provided by the LIS Librarian and central reference department, as these were accessed from different websites.

Between 2002 and 2011, a number of major changes occurred both to the LEEP program and to the UIUC library.

- *Enrollment growth* - LEEP’s enrollment grew from 78 incoming students in July 2002 to a peak of 172 in July 2010, an increase of 120%. In order to sustain a sense of community and to make the best use of existing facilities, entering cohorts were split in two in 2002, and divided again in 2010. By 2011, the LEEP boot camp involved three overlapping sessions for sub-cohorts of about fifty-five students each.
- *Instructional software* - In 2007, LEEP’s original web-based platform, which was developed in house, was replaced with Moodle, an open-source learning management system. In 2008, the Elluminate web conferencing service was adopted for the synchronous class sessions, replacing another homegrown product.

- *Classroom facilities* – In the early years of LibLEEP, all workshops were held in a basement computer lab at the GSLIS building. When a state-of-the-art electronic classroom opened in the Undergraduate Library (UGL), adjacent to the Main Library, some of the workshops relocated there. The UGL classroom facilitates the use of clickers and other technologies.
- *Electronic reserves*- Early in LEEP's existence, GSLIS developed an e-reserves service hosted on a GSLIS server but maintained by the LIS Librarian's assistant. By 2005, the University Library had instituted a general electronic reserves service, and e-reserves for LIS courses were migrated to it.
- *Library staffing* - In 2009, a fundamental change occurred in the organization and staffing of library services for distant users. For many years, UIUC's Division of Online and Continuing Education had employed an Academic Outreach Librarian. The position was eliminated and the librarian's responsibilities were integrated into existing University Library workflows. The interlibrary loan department, for example, assumed responsibility for home delivery of books.
- *Subject-specific library services for LIS* - In 2009, the separate LIS Library closed. Its collections were merged into the central book stacks and other departmental libraries. Library personnel with a designated responsibility for LIS were reduced to a full-time faculty librarian and an almost-full-time staff member. The LIS Library's website was transformed into the LIS Virtual Library, with enhanced search and browse features.
- *Online catalog* - The VuFind interface to the online catalog was launched in 2009, which complemented but did not replace the existing ExLibris WebVoyage interface. Distance students still needed to use the old catalog interface to request home delivery of books.
- *Other library resource interfaces*- A makeover of the UIUC Library website's architecture and visual design was undertaken in 2007. The new design prominently included a federated search program, Easy Search, which was developed locally to cross-search the most common full-text article databases used by undergraduates. Over time, specialized Easy Searches were developed for ten subject areas, including LIS.
- *LibGuides* – In 2007, the UIUC began using Springshare's LibGuides to host both general and course-related library resource guides. LibGuides prepared for distance education students by the LIS Librarian and the central reference department (University Library, 2011) are among the most frequently accessed.
- *Other library instructional materials* - Over the past decade, many short videos were produced and placed on the UIUC Library website to provide anywhere, anytime training in the use of specific resources. In 2010, the LIS Librarian worked with a student to create a library welcome video for LEEP students, which they viewed prior to their arrival on campus.

This partial list of changes that impacted students and library users over the past decade is a reminder that information literacy instruction takes place within a wider context of academic innovations and library service improvements. Constant updating of workshop scripts, web-based guides, and library tour routes was required to keep LibLEEP relevant. By 2011, the configuration of the librarian-led boot camp sessions had changed in several ways. Because incoming students were divided into three sub-cohorts, three overlapping boot camp sessions were scheduled; LibLEEP was repeated in each one.

The LibLEEP workshop on online resources was split into two workshops. This change responded to persistent feedback from students that the workshop induced a severe state of information overload. In the new format, the first workshop followed immediately after the tour of the physical building, on the first full day of boot camp, and was conceptualized as a complementary "virtual tour." Just forty minutes long, it emphasized learning one's way around the UIUC Library website, including special features of the LIS

Library website and, later, the LIS Virtual Library. (The LIS Virtual Library, a portal site for disciplinary information, came into prominence when the LIS departmental library closed [Searing, 2010]). On the following day, a workshop concentrated on finding LIS journal articles using the major disciplinary indexes as well as the local holdings database and federated search tool. Because the student evaluations indicated that this content was redundant for students with well-developed research skills, the database workshop was optional; about half of the students self-selected to attend it.

Another optional workshop was designed to assist students with research for the information policy “tracking paper,” which was assigned in LIS502 from 2004 to 2010. The students had to choose a topic from a short list, prepare a summary of the issue in the format of an executive briefing, and devise a strategy for keeping current. Over the years, the topics for the tracking paper ranged from specific legislation, such as the Patriot Act, to new directions in the profession, such as digital curation. Controversial topics such as outsourcing of library operations and copyright reform also appeared on the list. For many students, this was a daunting assignment, because they needed to venture beyond books and journals to extract information from the websites of advocacy and research organizations, blogs, news sources, government documents, and more. Many were not familiar with the genre of the executive briefing, and their anxiety was exacerbated by the time pressure. Although the tracking paper information workshop was listed as optional, it was strongly recommended by the professor and teaching assistants and attendance was high. (The professor replaced the tracking paper with a different assignment in 2011, one which exposed the students to multiple information sources in LIS but did not require independent information-seeking, so the workshop was discontinued.)

The LibLEEP workshops are the only information literacy instruction opportunities that are systematically offered to all LEEP students. However, additional library instruction does occur after boot camp. Most new LEEP students register for LIS501, Information Organization and Access, in the fall term following boot camp; the LIS Librarian is usually invited to deliver a “refresher” lecture to the class during its mid-semester on-campus session. This half-hour lecture/demonstration is framed around an upcoming group project. Some students receive additional exposure to library resources and research techniques within elective classes. A librarian who is an expert on citation management software has offered a workshop on RefWorks for LEEP students through Elluminate; this was arranged by the LIS Librarian as a direct response to student feedback via the evaluation process. Lastly, the LIS Librarian has prepared various asynchronous resources to support independent learning, including LibGuides and instructional videos. The assessment data do not address the effectiveness or popularity of any of these other instructional opportunities – only the LibLEEP program that takes place during the boot camp.

LibLEEP was the focus of assessment because it forms the foundation for subsequent formal and informal development of discipline-centered information skills. Following a description of the assessment method, several responses from the student evaluation survey will be analyzed to illustrate how the data were used to affirm, modify, or eliminate components of LibLEEP.

#### PURPOSE, METHOD AND TIMING OF ASSESSMENT

In the literature of assessment, some writers make a distinction between *assessment* as an objective act of gathering data and *evaluation* as the subjective act of making judgments based on the data. In practice, the two terms are often conflated. A further distinction is typically made between *formative* and *summative* evaluation. These modes differ in purpose rather than methods. Formative evaluation seeks information that will drive program development or improvement. Summative evaluation seeks to determine if a program met its objectives. Tancheva, Andrews and Steinhart (2007) explored the nuances of formative versus summative evaluation and stated that one study may encompass both purposes. Like many experienced evaluators, they also applauded the use of multiple methods. The assessment strategy described in the present article incorporated informal feedback from professors and teaching assistants as well as the librarian’s own observations, but it relied most heavily on formal feedback from students through a web-based questionnaire. The assessment strategy did not hinge upon objective measures of students’ knowledge or skills but on self-reporting. Many of the questions measured perceptions or preferences.<sup>3</sup> Although some data from the feedback form could be interpreted in summative ways, the

general flavor of the assessment activity was formative. Its purpose was to discover lacunae in the content or other problems in LibLEEP, in order to correct them in future sessions.

From 2002 through 2005, student evaluations were gathered via a paper-and-pen survey, which was administered during the final library workshop near the end of the boot camp. A survey of ARL libraries at that time revealed that paper forms were the most commonly used formal assessment method for face-to-face instruction (DeFranco & Bleiler, 2003). Starting in 2006, the evaluation form for LibLEEP was converted to a web-based questionnaire using survey templates provided by the university. Students received the URL via email approximately a week after they returned to their homes. The web evaluation form proved to have distinct advantages. First, it did away with the task of transcribing data from paper forms to a spreadsheet or database, thus saving time and eliminating the potential for introducing errors. Second, the web survey did not need to be administered in the rushed final minutes of an instructional session. Instead, the evaluation could be conducted after students had the opportunity to use their new knowledge and to gain perspective on the instruction they received. Third, the web survey could reach students who were not present at the final workshop.

Over the course of the decade, five hundred students completed the LibLEEP survey. The tidy total is pure coincidence.

## FINDINGS AND APPLICATIONS

Student-centered assessment data has informed decisions to improve, replace, or retain components of the information literacy program, as the following examples illustrate.

### *Improving instructional components*

Practical learning outcomes that were formulated for LibLEEP in 2000 still pertain today. One states that students will be able to navigate to and use electronic resources that the University Library provides through its website. Survey questions related to this learning outcome were of two types. From 2002 through 2005, a question listed specific online resources which were introduced during the workshops and asked students whether they used those resources to complete their assignments. It was gratifying, but hardly surprising, to learn that students did indeed consult the resources which the librarian demonstrated (Searing, 2007, p. 207). In 2004 and 2005, students were also asked to list other resources they used for their LIS502 assignments. The responses highlighted students' use of legal and governmental information sources, including Lexis-Nexis and Thomas. In subsequent years the LIS Librarian invited colleagues with experience in teaching such resources to participate in LibLEEP; this arrangement continued until the course assignments were revised to focus less on specific policy initiatives and laws and more on broad trends and movements that affect the profession.

The ultimate intent of LibLEEP is two-fold: to equip students for course-based research within the discipline of LIS; and to empower them to find information for ongoing professional development in their future careers. Understanding how the LIS article indexes work, how a major library organizes information, how key concepts like Boolean searching and vocabulary control operate across disparate resources, when and how to use Google Scholar—this is knowledge that will be of lasting benefit to them. The students, however, are intensely focused on the assignments they must complete during boot camp. If the new knowledge doesn't have an immediate application to the research tasks at hand, they may view the library workshops as a waste of time. The evaluation questionnaire aimed to discover whether the workshops met the *student's* needs, not the librarian's, by measuring its success *as perceived by the students*. Obviously, students cannot evaluate longer-term impacts when the assessment occurs on the heels of the boot camp. Therefore, the questions on the survey emphasized the near-term effects of the workshops.

Students were asked to indicate their degree of agreement with the statement, "The online resources workshop prepared me to do research for LIS502 assignments." For this and other questions that



used a 5-point Likert scale, the results were analyzed by assigning weights to each response: strongly disagree=1; disagree=2; neutral=3; agree=4; strongly agree=5. A weighted average was then calculated for each year. Across the decade, the weighted scores were remarkably consistent, ranging from 3.9 to 4.3, and only once dipping below 4.0. Most students agreed that the workshop was relevant to their immediate needs. There was variance from year-to-year—the combined “strongly agree” and “agree” scores ranged from a high of 94% in 2005 to a low of 75% in 2007, for instance, but the value of multi-year data lies in the recognition that these highs and lows are not indicative of trends.

When quantitative measures are consistently positive, there may be little motivation to make improvements or to experiment with content or pedagogy. In the case of the online resource workshop, the open-ended comments lent important context to the numerical findings and shone a light on areas where minor improvement would be worthwhile. Over the ten-year period, the percentage of respondents who contributed comments about the workshop ranged from 32% to 69%. The average for the decade was 47%. Because close to half the respondents commented on the workshop, careful attention was paid to those comments.

Students’ survey comments frequently mentioned the large amount of content covered in a short amount of time, which led to a sense of being overwhelmed. Many comments displayed empathy for the librarian faced with squeezing so much necessary information into one or two workshops. Quite a few students expressed a wish for more hands-on practice time. While incorporating more self-guided exploration into the brief online resources workshop proved unfeasible, the follow-up optional workshop on LIS databases now sets aside significant time for hands-on practice. In addition, aware that many students suffer from information overload, the librarian acknowledges this fact in her presentations, reassures students that their anxiety will fade as they gain experience with searching, and reminds them about the ongoing availability of reference assistance.

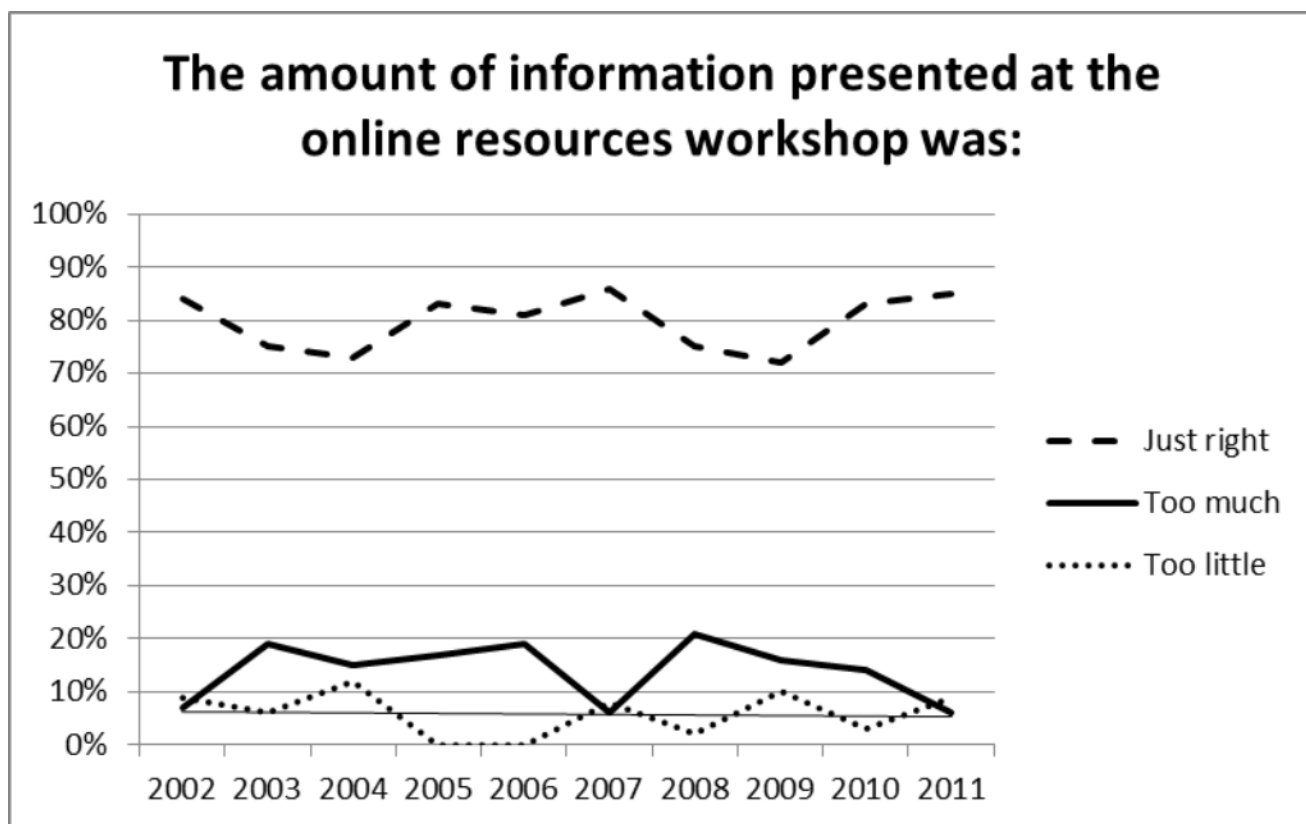
Survey comments starkly depicted the variance in entering levels of information literacy among the new LEEP students. Some students arrived at boot camp with well-developed research skills:

- This workshop is redundant for someone who already works reference in a library.
- I felt that it is a great workshop if someone is unfamiliar with researching online. I however did not feel as though I took that much away from it, as I have done much research work before.

Others were novices:

- That workshop was helpful because I think I wouldn't have a clue on where to start for the assignment in LIS502.
- It felt like an intro to someone like me who has not done any online research in a very long time. It was helpful but I feel like there is still a lot I have to learn.

Information literacy instruction should benefit students with both strong and weak information-finding skills, and therefore the LIS Librarian perennially seeks the ideal balance between too much and too little workshop content. A survey question gauges students’ perceptions of the amount of information presented (Fig. 1). The responses put the contradictory comments into context by revealing that a large majority of students, averaging 80% over the decade, were satisfied with the amount of information. Substantiating complaints about information overload, those who were not satisfied were more likely to feel that there was too much information rather than too little. Because the data indicated that the workshop covers the right amount of information, the librarian conscientiously drops or abridges some older content whenever she adds new content.



**FIGURE 1** Student opinions regarding the amount of information presented

Handouts and ancillary guides are another facet of LibLEEP that was modified based on student evaluations. The earliest feedback included complaints about the lack of handouts:

- It would be great to get a handout of resources and what they are.
- I would like a handout listing major databases, a short description, and any special log-in requirements.

The following year, handouts were provided, and the feedback turned positive:

- Thanks for the great handouts – they helped a lot!”
- Thanks for putting the research guide together; it saved me.

From 2004 to 2008, incoming LEEP students received a collection of library-related handouts, assembled in a folder with the librarian’s contact information on the cover. The folder’s contents, which varied slightly from year to year, included: a brochure about the Academic Outreach Library’s services; a general brochure about the University Library; an agenda for the library orientation sessions during LEEP boot camp; brief explanations of key concepts for online searching (controlled vocabulary versus keywords, truncation, Boolean logic); a matrix comparing the major LIS online indexes; several single-page flyers treating various features of the online catalog; instructions for requesting books from other libraries in the CARLI consortium; instructions for accessing e-books; an annotated list of major LIS reference tools; and a list of departmental libraries with their summer hours. Some of these handouts were standard materials used throughout the University Library; others were created specifically for the LEEP students. A question about the handouts, posed in 2007 and 2008, provided quantitative proof of their usefulness. The 5-point agreement scale for the statement, “I have used or anticipate using the handouts in the library packet,” yielded weighted scores of 4.0 in 2007 and 4.3 in 2008.

Again, however, students were given an opportunity make comments as well, and the comments reveal a more polarized view of the handouts’ importance. Some students praised the handout packet:

- The packet is very informative and has great material I will be needing!

- The packets are a good reference. It is nice to have something that tangible that I can take home with me.

However, other students were frank about the inadequacy of printed handouts:

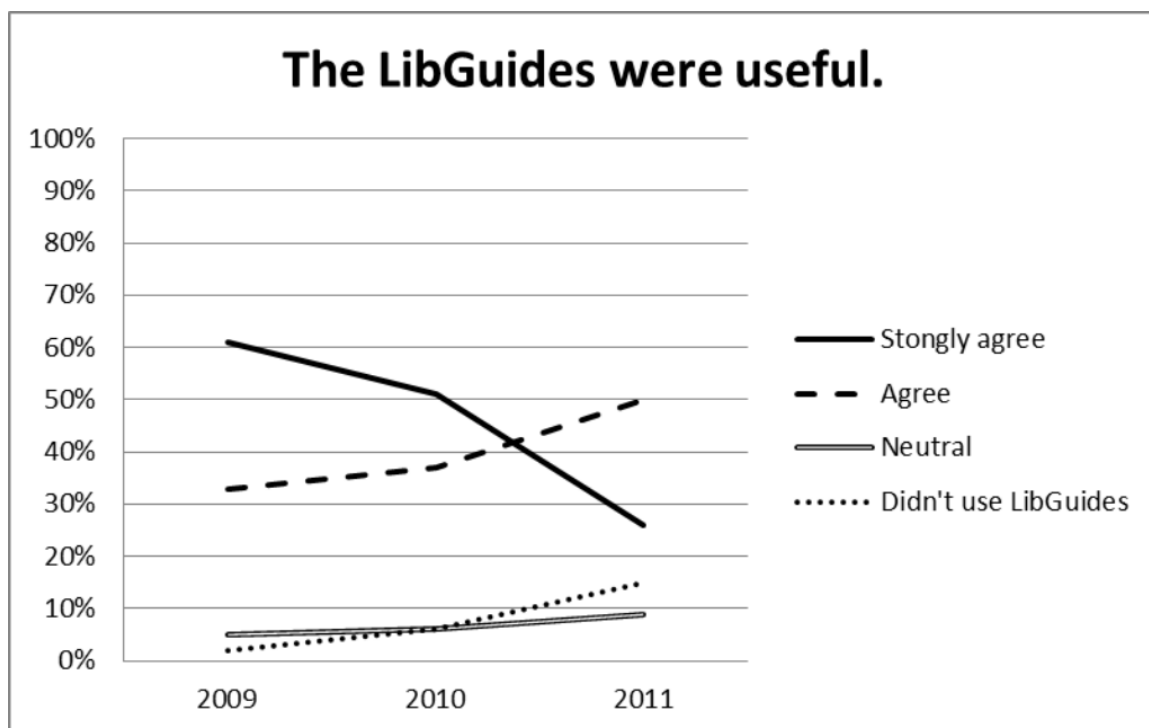
- While they were very useful, I have a hard time keeping track of all the papers we were handed.
- A link to resources on Moodle is much more important than a physical packet.

Several students, while expressing appreciation for the packet, admitted that they had not looked at it.

Although the assessment affirmed the continuing value of paper handouts for some purposes, it also supported a gradual migration toward web-based presentations of the same information. In 2005, the LIS Librarian created a web page to support the information policy tracking assignment and to serve as the jumping-off point for the optional workshop on the same topic. The web page was instantly popular with LEEP students, as evidenced by survey comments as well as web access statistics. Meanwhile, the LIS Librarian observed that LIS students acted less and less enthusiastic when presented with a packet. In fact, the plethora of printed material seemed to contribute to the sense of information overload for some of them. Today, LEEP students are no longer presented with a packet of handouts, but one or two handouts with key information are distributed at each workshop. This seems to ease some student's anxieties and gives them something on which to make notes. Although a specific question about handouts no longer appears on the survey, students still volunteer positive comments about them.

When the University Library implemented LibGuides in 2008, the tracking paper resource page was converted to a LibGuide, and it quickly became one of the most frequently accessed UIUC guides. Judging by the use statistics, which track month-by-month access, students continued to link to this assignment-specific guide after the class ended. It seems likely that students bookmarked the assignment guide and then resorted to it as a familiar shortcut to library resources. By so doing, they bypassed both the Library's gateway page and the LIS Virtual Library and thereby forfeited opportunities to discover resources beyond those that were pre-matched to that particular assignment. This realization spotlights an old dilemma in academic librarianship, between helping students meet immediate course-related needs and encouraging them to become independent information seekers.

In 2009 a question about LibGuides replaced the question about handouts on the evaluation form. With only three years of data in hand, the findings are suggestive but not conclusive (Fig. 2). Presented with the statement, "the LibGuides were useful for 502 assignments," no students chose "disagree" or "strongly disagree." However, the portion of students choosing "strongly agree" has steadily trended downward, from 61% in 2009 to just 26% in 2011. Although the portion choosing "agree" increased—signaling a less enthusiastic but still positive response—overall the combined "agree" and "strongly agree" responses dropped by eighteen percentage points in the three year period. The number of students who felt "neutral" about the LibGuides' usefulness rose from 5% to 9%. Most tellingly, the percentage of students who reported that they did not consult the LibGuides jumped from 2% to 15%.



**FIGURE 2** Student opinions about LibGuides

The cause for declining use of LEEP-oriented LibGuides (which is corroborated by usage statistics) may have less to do with changes in student behavior or attitudes than with the revision of the LIS502 syllabus that eliminated the tracking paper. The results suggest that, unless a web guide is closely aligned with an immediate, imposed information need, students are less likely to consult it or find it useful. As more annual data accumulate, more conclusive evidence may emerge for fine-tuning both paper handouts and web resource guides.

#### *Replacing an instructional component*

Another desired outcome for LibLEEP is that students will be able to discover and access library resources when they are away from campus. Because the mechanisms by which students request materials from print collections changed significantly in 2009, this component of LibLEEP has undergone the greatest change. From a hands-on workshop format, it has been transformed into a largely asynchronous, time-of-need approach embodied in a LibGuide. Evidence from student evaluations helped shape this major change.

The training module to prepare students for remote use of the library was originally structured as a required workshop and was scheduled near the end of the boot camp. Since the objective was to explain to students the step-by-step processes for accessing library resources from a distance, the workshop was scheduled close to the time they would leave campus. The LIS Librarian and the Academic Outreach Librarian co-led the workshop and demonstrated how to log in through the Library's proxy server, how to find and download electronic reserves, how to use the virtual chat reference service, and how to request delivery of books and articles from the print collections. The last was a complicated process that differed for in-state and out-of-state students.

From the first survey, student feedback on this workshop identified problems. In 2002 and 2003, the survey simply asked for students' comments on the workshop and for topics to add or delete. Most comments were positive or neutral, but some, like the following examples, stood out:

- Very informative. Unfortunately, too many people are too tired due to completing the 5th assignment last night.
- I personally was too tired to get much out of it.

These comments echoed verbal statements made by students as they arrived for the workshop. When the librarian asked, “How’s it going?,” students often described themselves as “fried” or “brain-dead.” Beginning in 2004, the survey added a second question about the remote access workshop, aimed at quantifying students’ perceptions of its impact. A majority of students between 2004 and 2010 agreed or strongly agreed with the statement, “After this workshop, I feel confident about accessing UI library resources from home.” The annual weighted scores varied only slightly, from 4.0 to 4.4. Once again, however, the comments conveyed a less rosy assessment and often implied that the lessons of the workshop were not absorbed:

- It came at a bad time... I was so tired and worried about the test that I couldn’t focus.
- By this time I was feeling pretty exhausted and overwhelmed by all the library resource information. I’m not sure I’ve got this one mastered.

Attendance at this final boot camp workshop never matched attendance at the earlier ones, and it grew sparser as the years passed. Although it was not labeled “optional,” students behaved as though it were. By 2009, 43% of the survey respondents checked “did not attend.” Comments on the evaluation form gave reasons for non-attendance:

- I would have liked to attend but ran out of time completing course assignments.
- I misread the schedule and thought it was optional and also because we were at the tail end and pressured for time with our finals due.
- Too pressed for time at this point in boot camp. The other online tutorials were good and hoped I could find this information with them.

Furthermore, out-of-state students expressed frustration with sitting through instructions that applied only to in-state students and vice versa. Other students commented that the workshop was redundant. Despite self-reporting by students that the workshop made them confident about using the library remotely, the uptick in negative comments and the diminishing attendance led the librarian to consider whether a different instructional strategy might be more effective.

Organizational change also forced the re-examination of this workshop, which was co-led by the LIS Librarian and the Academic Outreach Librarian. The elimination of the Academic Outreach Librarian’s position and the absorption of her services into the general library workflow raised a question about the ongoing necessity of holding a workshop devoted to remote library use. One welcome outcome of the transition to the new service model was a comprehensive LibGuide prepared by the reference department for distance students, which spells out, step by step, the process of requesting materials from the print collections, as well as accessing online licensed content (University Library, 2011). The LibGuide contains nearly all the information that was contained in the workshop. In consultation with the LEEP instructors and planners, the LIS Librarian concluded that students would be better off consulting the LibGuide when they actually needed such information. The remote access workshop was discontinued in 2010, and students gained an hour of flexible time during boot camp.

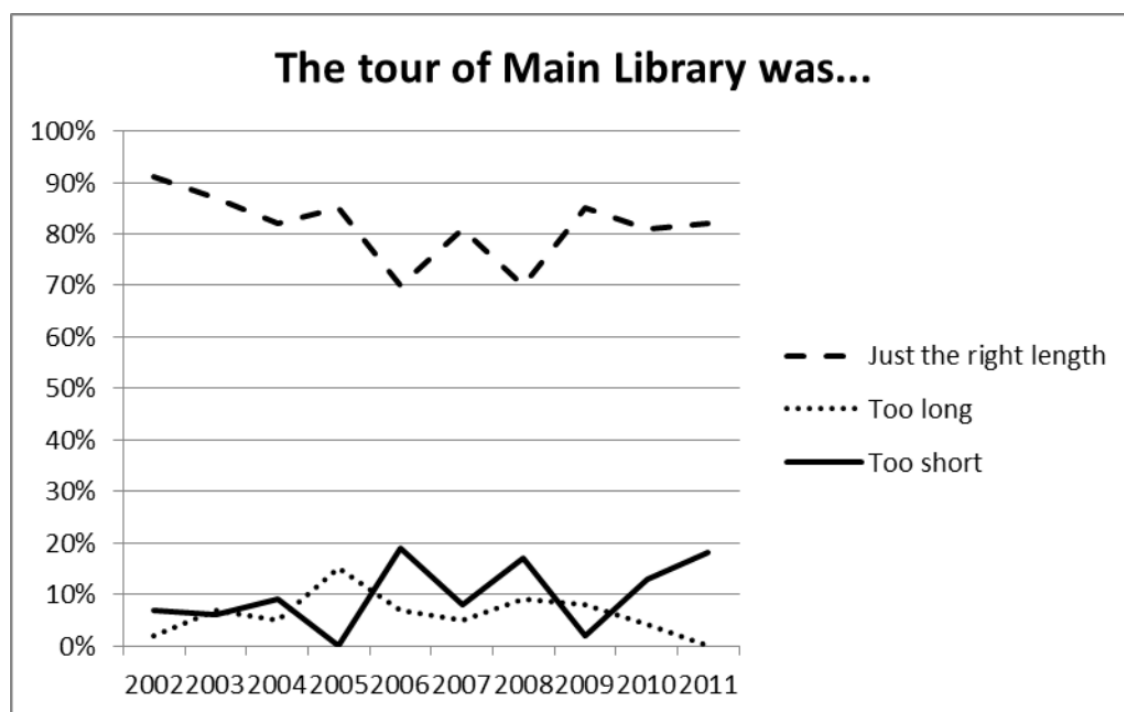
### *Confirming the value of instructional components*

A tour of the Main Library is a key component of LibLEEP. A pragmatic outcome that was formulated for LibLEEP is that students will be able to navigate the physical library. This may seem an unlikely objective for a distance education program, yet the students themselves affirmed its importance. The survey prompted respondents to comment on the library tour. The following are representative of recent comments:

- I found it very interesting. ...[H]aving seen various parts of the library will make me feel more comfortable using it.
- Tour was very informative. A great way to learn where services were and a little history too.
- Amazing building, informative tour. Would have happily spent the whole day there.

Explanations were advanced in an earlier paper for the enduring popularity of the LibLEEP library tour (Searing, 2004a). First, the walking tour is a lively contrast to the series of sedentary workshops in dimly lit computer labs during the first days of boot camp. Second, students use the physical library's organization as a touchstone for later explorations of the library's virtual space. Third, the banter-filled tour is entertaining as well as informative; it begins the process of relationship-building between the librarian and the students. In the context of the tour, a great deal of information about library collections and policies is imparted. A GSLIS faculty member has suggested that the walking tour may evoke kinesthetic learning (C. Jenkins, personal communication, December 12, 2011).

Few modifications have been made to the tour over the years, except to accommodate larger LEEP cohorts and to reflect relocated service points within the building. The consistently positive student feedback begs the question, what are the most useful parameters on which to evaluate it? With continual improvement in mind, students were asked for feedback regarding the tour's length and content. Length was an issue because, over the years, the original one-hour tour was lengthened to an hour and fifteen minutes and then shortened to its current length of 45 minutes. Regardless of the length, most participants judged the tour to be just long enough (Fig. 3). In seven of the ten years, dissenters judged it too short rather than too long.



**FIGURE 3** Student opinions about the length of the library tour

What did students who will seldom visit the library want or need to know about its physical layout? On the tours, LIS students displayed an interest in library architecture and organization that transcended their own research needs. As the tour script evolved over the years, it blended practical information (Where's the information desk? How do I print from public computers?) with gossipy historical tidbits and commentary on the quirks of the building. An open-ended survey question generated answers that influenced the content of the tour. The first iteration of the question prompted students to recommend "topics or locations to add or delete." Subsequent surveys simply asked for comments about the tour. Following up on student suggestions, a brief excursion into the massive, semi-closed, central book stacks was added to the route. Last year, an optional tour of the Rare Books & Manuscripts Library was offered at a separate time, to accommodate the increasing number of students who expressed an interest in rare books librarianship. An optional tour of the high density storage library is also popular

during boot camp. Students often suggest more trips “behind the scenes” to library work spaces, but in the interest of time these have been kept to a minimum.

The tour is intriguing from an assessment viewpoint for two reasons. First, because a full decade’s worth of data exists about it, it provides a compelling positive example of service continuity. Only minor changes have been made to tweak what is clearly a successful endeavor. Second, without data that so definitively confirms the value of the tour, it probably would have been abandoned long ago, on the (false) assumption that it was of decreasing relevance to distant users. Of course, a questionnaire cannot test whether students actually *can* find their way around the Main Library after the tour; it can only prove that they perceive the tour as a valuable experience.

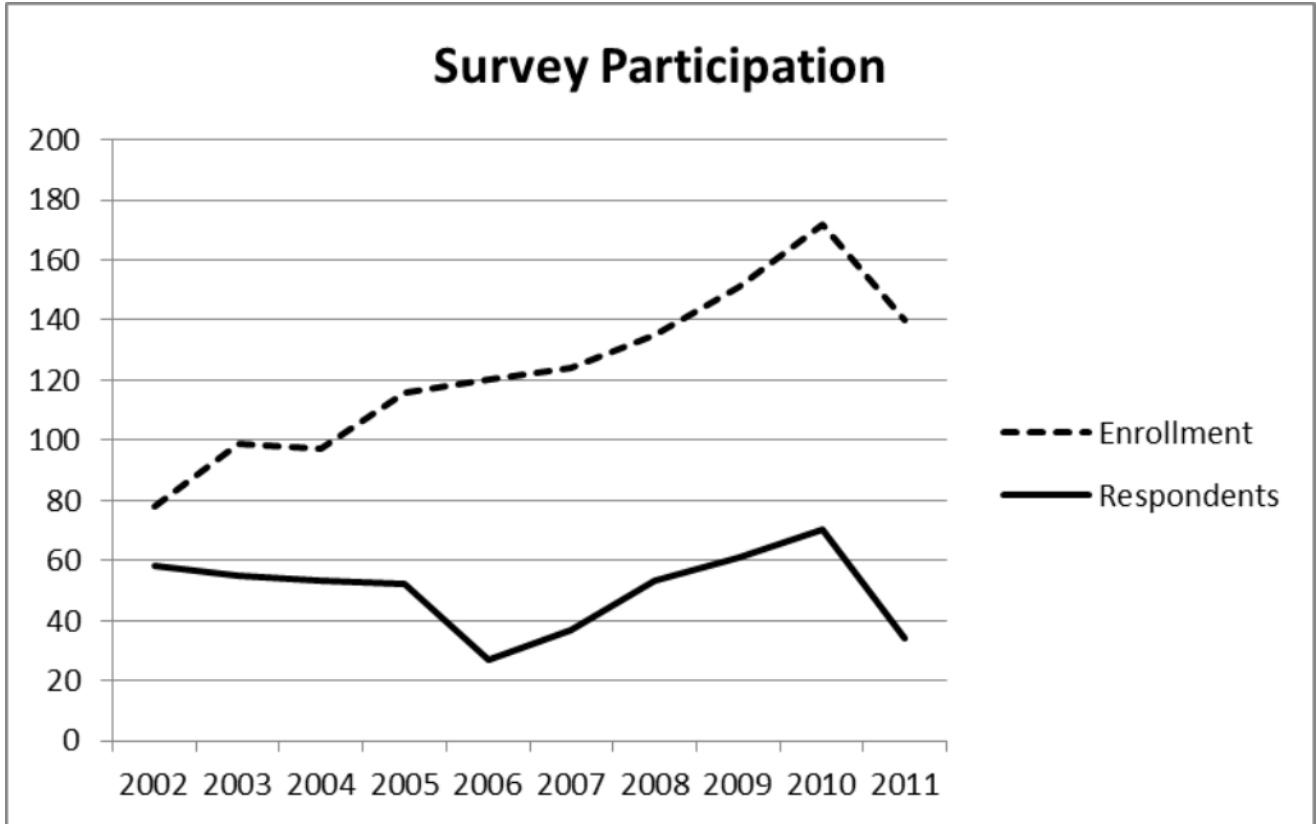
Teacher effectiveness is another dimension of LibLEEP that students evaluate. The original 2002 evaluation form posed three questions about the LIS Librarian’s effectiveness in the classroom. Students were asked to indicate their level of agreement with the following statements: “the instructor was knowledgeable”; “the instructor handled questions well”; and “the instructor was approachable.” In subsequent years, as various librarians and staff members were recruited to assist with LibLEEP tours and workshops, a single open-ended question simply invited comments on each individual’s teaching style. In this way, the students were free to mention aspects of teacher performance that mattered most to *them*. These comments proved particularly useful to graduate assistants and others with minimal teaching experience who were tapped to lead tours, as they occasionally pinpointed problems like poor vocal projection and uneven pacing that can be resolved with practice. The comments were also a rich source for divining the characteristics of a teacher’s style that make an impression on students. The adjectives “helpful,” “patient,” “friendly,” “clear,” and “knowledgeable” appeared frequently, suggesting that LEEP students learn most readily and happily from a teacher who behaves as a friendly, other-oriented expert. In general, students were quite positive in their feedback and gentle in their criticisms, with the result that the librarians and staff members involved in LibLEEP felt appreciated and motivated. Importantly, consistent positive feedback in this area meant that teacher development could take a second place to content development.

#### THOUGHTS ON THE ASSESSMENT STRATEGY

Assessment data informed modifications to several components of LibLEEP, as the examples above illustrate. Lessons were also learned about the assessment process itself. Understanding the causes for fluctuating response rates is important. Close examination of the data has also reinforced the author’s views, some contrarian, about longitudinal research, small-scale evaluation, and so-called “reaction data.”

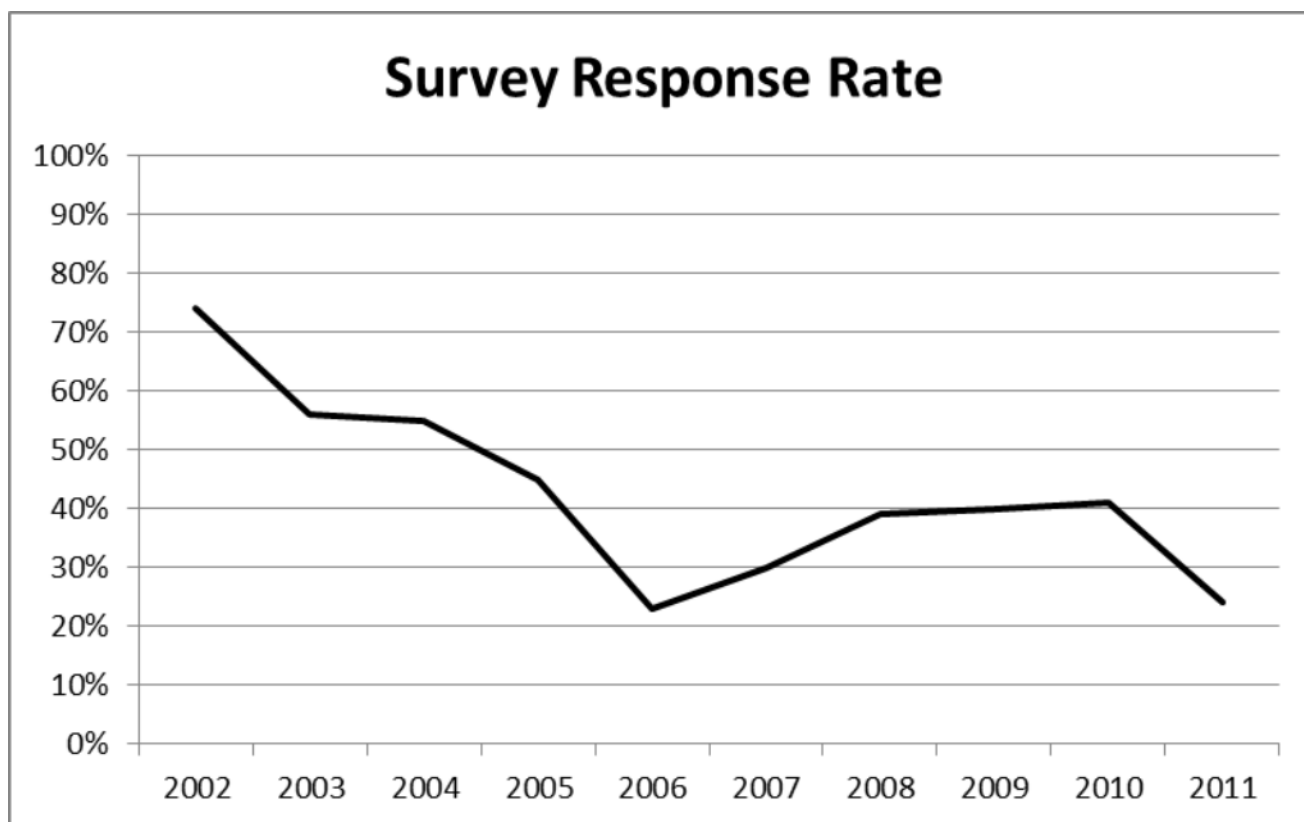
##### *Survey response rates*

The declining response rate is worrisome. Over the course of the decade, the response rate to the student survey has varied from 74% of the target population to just 23%. Figure 4 shows the number of students enrolled each summer in boot camp compared to the number who completed the LibLEEP evaluation survey. Figure 5 shows the annual percentage response rate.



**FIGURE 4** Survey response compared to enrollment





**FIGURE 5** Survey response rate

There is no hard evidence about why students do or don't participate in the evaluation, but one may speculate. Although it trended downward, the rate of response remained above 40% for the first four years, 2002-2005, when the survey was administered as a paper questionnaire at the conclusion of the final LibLEEP workshop. The students who attended the session were a captive audience, so the downward trend was a sign of declining attendance at the workshop. It was feared that the students who attended the workshop might not be representative of the population overall; perhaps those who stayed away did so because they were dissatisfied with the earlier information literacy activities. For the first time in 2006, a web-based survey instrument was administered shortly after the students returned home. The number of respondents dropped precipitously in the first year that the survey was offered on the web, which was disappointing but should not have been surprising. Herson & Altman cite research that documented routinely lower response rates for web surveys than for mailed paper surveys; they nonetheless assert that library evaluators should "do all that they can to achieve response rates no lower than 60 percent" (Herson & Altman, 2010, p. 104). Except in its first year, 2002, the LEEP survey has never achieved a sixty percent response rate. Fortunately, after the low point of 2006, participation gradually climbed again, hovering around the 30-40% rate that is typical of web-based surveys (Office of Quality Improvement, 2010, p.14).

The conversion to web delivery of the questionnaire is a probable cause for the reduced response rate, but it might not be the only cause. The low response rate may reflect a decline in students' perceptions of themselves as pioneers in online LIS learning. A "breakdown of the distinction between teacher and taught as well as the collective construction of the course" characterized the early years of the LEEP program (Smith, Lastra, and Robins, 2001, p.356). Students felt that they were partners with the faculty and technical staff in designing a new model for online LIS education. The first LibLEEP survey, in 2002, took place during the seventh year of the LEEP program. LEEP was no longer new, but online LIS degree programs were still somewhat unusual. Students who saw themselves as innovators believed, perhaps, that they could make important contributions to the further development of LEEP by providing their feedback. The leveling off of the response rate paralleled the LEEP program's transition from the cutting edge to the

mainstream. Today online master's programs in LIS are widespread, and students may feel that they have less of a stake in their design and improvement.

#### *Multi-year research*

Uninterrupted multi-year user feedback, particularly at the granular level of discipline-based services, is rare in most academic libraries. Powell quotes Griffiths and King (1991) on the principles of sound evaluation research, which include the admonition that "evaluation should not be sporadic but be ongoing and provide a means for continual monitoring, diagnosis, and change" (Powell, 2006, p. 105). While the present case study does not meet the strict definition of a "longitudinal" study as it is normally understood by social scientists—that is, the observation or collection of data about individual people over a period of time—it does collect annual data about a specific *program* over time. This case study shows that data can be collected year after year with minimal effort and can prove quite useful in both the short and long terms.

Continuous gathering and analysis of student feedback is facilitated by stability in personnel. In this case study, the same subject specialist librarian has been serving the LIS faculty and students since 1997, and the same staff member since 1984. The teaching and support personnel at GSLIS have also experienced low turnover. Assessment is deeply embedded in their work culture. The regular cycle of LibLEEP student surveys and debriefing sessions with boot camp instructors and advisors has fostered an environment of mutual striving for improvement.

A commitment to collecting and using multi-year data can be a trap, however. For perfectly accurate comparisons over time, the survey questions must be worded in the same way and administered in similar circumstances each year. Yet "ongoing evaluation should be dynamic in nature, reflecting new knowledge and changes in the environment" (Powell, 2006, p. 106). This case study demonstrates that the year-to-year consistency required of a rigorous scientific survey is not necessarily desirable in the field. Modifications to the survey instrument were necessary in order to reflect new program elements, take advantage of new technologies, and address emerging areas of concern. Texts on survey design caution against long questionnaires, so over the years some questions were dropped. The number of questions has never exceeded nineteen. This case study argues for a practical balance between the consistency needed to gather comparative data from year to year and the flexibility needed to keep the assessment process relevant.

#### *Small-scale evaluation*

When students evaluate LibLEEP, they provide data that is detailed enough to be actionable. Broader assessments may convey a general sense of a program's effectiveness, but not enough information to drive change. For example, graduate-level distance education programs at the University of Illinois are reviewed every five years by the Graduate College's Committee on Extended Education and External Degrees. According to an internal report of LEEP's last such review in 2006, satisfaction with library services is high among both faculty and students. A general question about library services, however, does not provide meaningful data for reviewing the information literacy components in particular. Similarly, the UIUC Library undertook several institution-wide surveys during the decade covered by this case study. A survey of graduate and professional students in 2004, for example, provides some evidence for the assertion that LIS students make relatively heavy use of the library, compared to other graduate professional students in fields like business and social work. However, the survey did not differentiate between on-campus and distant graduate students (Services Advisory Committee, 2004). Similarly, demographic variables for LibQUAL+ surveys conducted at UIUC in 2000, 2001, and 2008 did not break out users at a distance.

Broad surveys of academic library users are not designed to generate micro-level data, but rather to pinpoint broad service areas that need attention or to provide evidence of the library's impact on institutional goals. Despite the almost total focus now within the library assessment literature on the big questions that drive institutional priorities and resource allocation, there is a clear and compelling need for small-scale evaluation at the level of departments, majors, and even individual classes. Through such efforts, librarians become better teachers, and library instruction becomes more responsive to student needs

and preferences. As Ariew and Lener (2007) point out, “teaching evaluation forms ideally needed to be tailored to specific classes, teaching objectives, and learning outcomes” (p. 512). This case study affirms the value of small-scale evaluation.

### *Self-reporting and “reaction data”*

Student evaluations of library instruction have been criticized because self-reporting is highly subjective. Perceptions may not mirror reality. Just because a student is satisfied with a library instruction session does not mean he or she actually learned what the librarian intended to teach, nor does it mean that the student can put that knowledge to effective use. For these reasons, reaction data may be dismissed as a poor basis for making changes to a program. Over the past decade, thinking in the field has shifted toward measuring learning outcomes in substantive ways, and student feedback through surveys or focus groups has been devalued compared to more rigorous methods, such as pre-tests/post-tests, student portfolios, and annotated bibliographies. Trustworthy assessments of instructional success and students’ information literacy, the experts assert, are better achieved using objective techniques (Oakleaf, 2010, p.15).

Its deficiencies notwithstanding, the survey method for gathering student feedback has certain intangible benefits. First, students are often grateful and surprised when their opinion is sought. By soliciting feedback from students about their recent experiences, a librarian affirms that their opinions matter. This helps to cement a relationship between the librarian and her users, which in turn may increase students’ comfort in asking reference questions. Second, by including open-ended questions on a survey, the librarian allows students to speak in their own voices and share their individual concerns. This can lead to the discovery of strengths or weaknesses in the program of which the librarian was not previously aware. Although reaction data cannot tell the entire story, this case study shows that student feedback can provide motivation for substantive improvements.

## REVISITING EARLIER LESSONS

When the LIS Librarian first began collecting student feedback and pondering its meaning, she observed that LEEP—and probably online graduate LIS education overall—had characteristics that set it apart from most distance education (Searing, 2004b). First, the LIS curriculum is information-intensive and makes heavier-than-average use of library resources. Second, the library as place is surprisingly important. And third, librarians responsible for serving LIS students are perceived as professional role models.

Have these factors remained salient? Certainly LIS students’ hunger for information is as intense as ever. Information retrieval and use are at the heart of the discipline, and students demonstrate their knowledge by creating information products. In their comments on the evaluation survey, students often complain about information overload—“too much, too fast”—yet they also express disappointment about subjects that were not covered. The information-intensive nature of the field is corroborated by quantitative data, such as reference and document delivery statistics. For example, LEEP students initiated 77% of the article delivery requests made by distance education students in the 2010-11 academic year (C. Weible, personal communication, December 9, 2011), although they constituted only 25% of the total students registered in UIUC online programs (K. Gustin, personal communication, December 12, 2011).

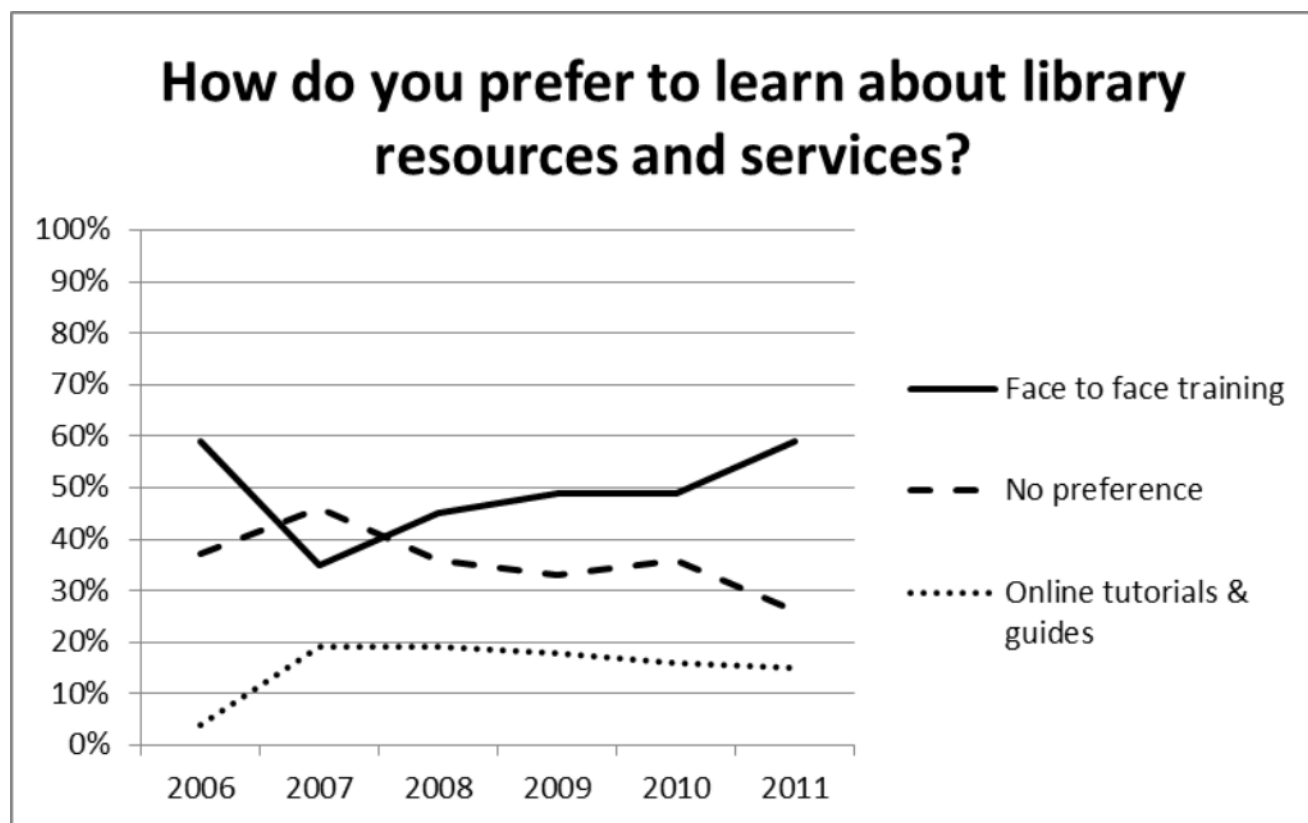
As already discussed, students’ enduring fondness for the library tour is evident in the survey responses, confirming the earlier observation that the physical library still matters to LEEP students. The tour of the Main Library, an impressive edifice built the 1920s, seems to instill in the students a sense of belonging on the campus and connects them, as aspiring information professionals, to the long and respected tradition of librarianship. The perennial fascination that the physical library holds for LEEP students confirms the value of the “library as place” even among technology-savvy online learners.

As Latham & Smith (2003) stressed, there exists an “obvious connection between the provision of library services and the education of future information providers,” and “it would be especially ironic and vexing if students enrolled in LIS distance education programs were receiving limited and/or inferior services” (p. 122). The perception of the LIS Librarian as a role model is occasionally made explicit in

students' survey comments, which have described the librarian as a "consummate pro" and a "role model for us all." However, since none of the survey questions deal directly with this topic, the evidence is largely anecdotal. Their obligations as role models motivate the LIS Librarian and her assistant to provide exemplary service and to model best practices—including user-centered assessment.

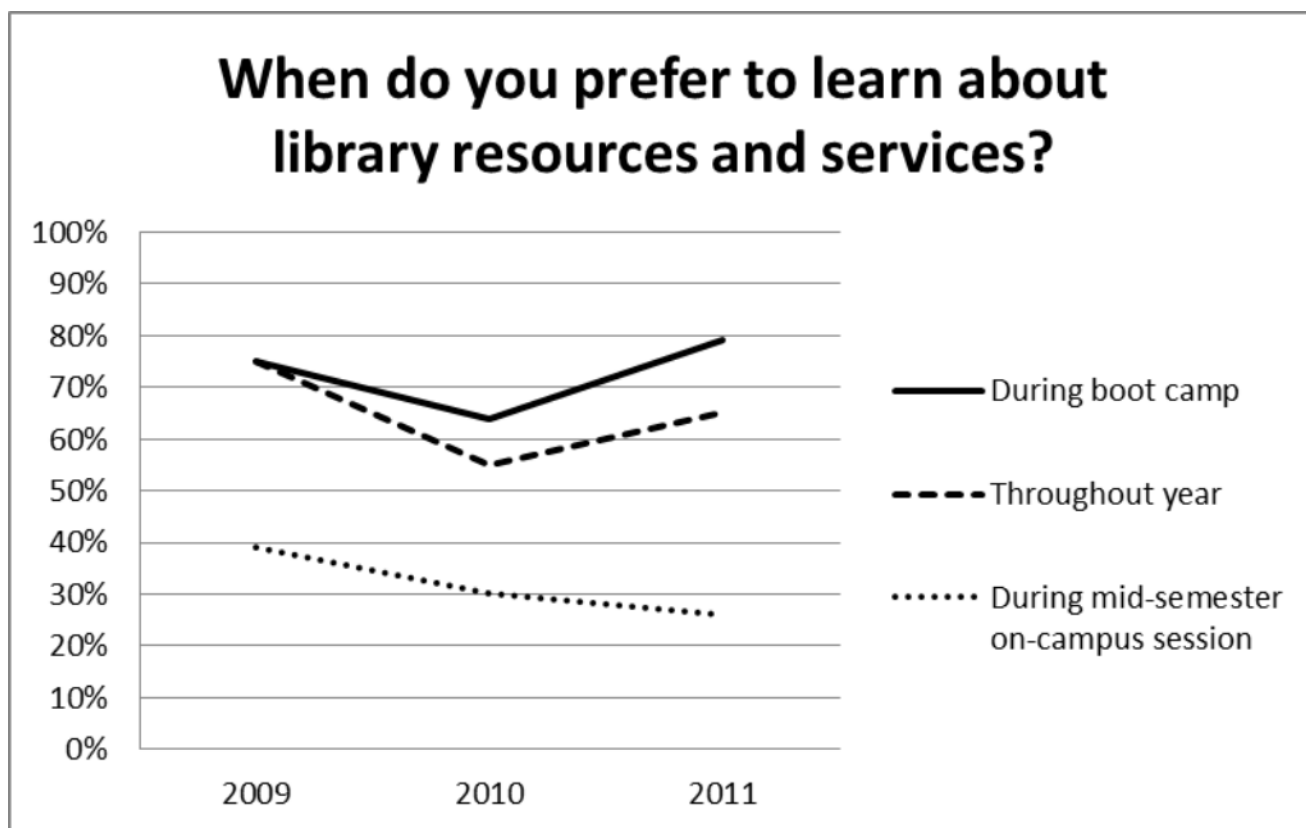
### FUTURE DIRECTIONS

Because students' time is a scarce resource during LEEP boot camp, an honest assessment of the library components must explore the possibility of alternative approaches to information literacy instruction. As described above, the face-to-face workshop on remote use of the library was discontinued after a LibGuide was created that served the same purpose. Should the time allotted during the boot camp for library-related instruction be further reduced? According to two survey questions which uncovered student preferences for the timing and mode of library instruction, the answer is no.



**FIGURE 6** Students' preferred learning mode

Since 2006, the evaluation survey has gauged students' preferred mode for delivery of library instruction (Fig. 6). The data revealed a clear and continuing preference for face to face training. They also pointed to a sizeable minority who prefer online tutorials and guides, and an even larger minority for whom delivery mode does not matter. These results are mildly surprising. It was assumed that, as the years went by, entering students would be increasingly comfortable with online asynchronous learning tools and would express less and less desire for face-to-face sessions. Perhaps LEEP students, who have chosen to enroll in a blended program that requires brief on-campus residencies, are naturally inclined toward face-to-face learning. Until the trend shifts, the data argue for maintaining a visible and active library instruction program during boot camp. The data also support the continued development of alternative and supplementary instructional resources that are delivered online.



**FIGURE 7** Students' preferred timing of library instruction

In 2009, a question was added to discern student preferences for the timing of library-related instruction (Fig. 7). LEEP students clearly prefer the intensive, in-person information literacy training during boot camp. The trend lines confirm the librarian's decision to stop holding poorly attended face-to-face workshops during the mid-semester on-campus session; instead, she holds daily office hours in the GSLIS building during the on-campus period so that students can drop by for reference help. She has also experimented with live online instruction via Elluminate, since distant learners at UIUC expressed an interest in library-hosted webinars (Hensley & Miller, 2010). By using email and Moodle web boards to share links to LibGuides, online tutorials, and instructional videos, she responds to students' desire to learn about the library throughout the year.

Although to date the survey has not addressed marketing issues, one take-away from the assessment data is the need to promote the optional workshops and LibGuides more assertively before and during boot camp. Moreover, the declining response rate makes clear a growing need to promote participation in the evaluation itself. Since distant learners at UIUC prefer email for communicating with librarians (Hensley & Miller, 2010)—a finding that mirrors the LIS Librarian's experience—it will be a priority to improve email communications rather than ramp up the use of social media, at least in the short term.

As the yearly assessment of LibLEEP continues, some survey questions will inevitably be retired and new ones substituted. The purpose of the assessment, however, will stay the same: to gather evidence and opinions to improve the program. Past successes in using data from student evaluations to drive instructional improvement are the strongest reason to continue the annual LibLEEP surveys and to analyze the results in a multi-year framework.

## NOTES

<sup>1</sup> The official description of LIS502, Libraries, Information and Society, reads: “Explores major issues in the library and information science professions as they involve their communities of users and sponsors. Analyzes specific situations that reflect the professional agenda of these fields, including intellectual freedom, community service, professional ethics, social responsibilities, intellectual property, literacy, historical and international models, the socio-cultural role of libraries and information agencies and professionalism in general, focusing in particular on the interrelationships among these issues.” Retrieved from <http://www.lis.illinois.edu/academics/courses/catalog>.

<sup>2</sup> For LEEP students, LIS502, Libraries, Information & Society, is the entry course, and LIS501, Information Organization & Access, is taken after it. For most on-campus students, LIS501 is the entry course, and LIS502 is taken in the second semester. These are the only two required courses for the basic M.S. degree; thus they are the obvious target for course-integrated information literacy instruction.

<sup>3</sup> A copy of the 2011 survey instrument is available at <https://illinois.edu/sb/sec/5493439>

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