A SURVEY OF LIBRARIAN PERCEPTIONS OF INFORMATION LITERACY TECHNIQUES

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INTRODUCTION

Librarians have been teaching for over a century and continue to have an important presence in the classroom. However, the complexity of teaching activities and the amount of teaching expected of librarians have dramatically increased in the past fifteen years (Walter, 2008). In the twentyfirst century, access to students comes in many different forms. Students may come to librarians virtually or face-to-face, once or many times, voluntarily or mandatorily. Librarians may meet with them one-on-one or as part of a class, and may play the roles of guest speakers, primary instructors, or "research therapists" (Booth, Unsurprisingly, each model—the "one-shot" session, one-on-one research instruction, full-semester credit course instruction, and embedded librarianship (see Table 1)—has its proponents and detractors. In such a complex landscape, individual librarians develop their own pedagogy, whether explicit or implicit, making choices about which approaches they believe will be most effective in many different instructional situations.

In order to better understand librarians' preferences, practices and perceptions regarding instruction at their institution, the authors surveyed the library faculty at the City University of New York (CUNY). As a large, diverse university system which includes senior (4-year), community (2-year), and graduate institutions, CUNY includes librarians with many different perspectives owing to the difference among their institutions.

CUNY is the largest public urban university in the United States, with more than 269,000 degree-credit students at 24 colleges across New York City. The CUNY Library System serves many different populations and includes 11 senior colleges, seven community colleges, and five graduate and professional schools. The smallest college enrolls around 200 students and the largest around 24,000. Librarians

TABLE 1—Types of Instruction

Type of Instruction	Definition	
One-shot instruction session	A single library session with a course instructor, designed to provide an introduction to general library skills or instruction around a specific assignment	
One-on-one research	The student and librarian discuss research needs on a one-on-one basis	
Credit-course instruction	A librarian, as the primary course instructor, teaches information literacy in a class over the course of a semester or partial-semester	
Embedded librarianship	Semester-long partnership between subject faculty member and librarian in a course	

within the CUNY Library System have faculty status.

The survey used in this study was administered with the intention of better understanding how academic librarians think about instruction. Which models do they consider the most effective? What are their main instructional goals? How well do the kinds of teaching they do match their preferred practices? The authors hope to provide an overview of these attitudes for consideration in decisions about prioritizing While librarians' teaching activities. preference and perceptions do not trump the need for assessment, they can reveal a great deal about what we, as a profession, value when it comes to teaching.

LITERATURE REVIEW

Published research shows how academic librarians teach in many different contexts. Julien and Genuis (2011), in a national survey of Canadian librarians, found that librarians were involved in numerous kinds of instructional activities, including multiple sessions in the same class, credit courses, one-on-one instruction, and others. However, traditional one-shot presentations were found to be the most common method of instruction

There is debate about the effectiveness of each model of information literacy instruction, including the most common ones. Despite the ubiquity of one-shot instruction methods in the literature, some librarians are skeptical of them. Davis, Lundstrom & Martin (2011), who detail the arguments for both one-shot instruction sessions and credit courses, found that over 50% of the librarians in their study were

neutral as to which is a more effective method for teaching information literacy. Some researchers laud the effectiveness of reference services; Johnson & Lindsay (2006) and Cull (2005) found that their survey respondents considered reference work the most effective way of teaching information literacy to students, because it is focused on a student's individual needs. Some librarians consider reference work professionally satisfying more than conducting one-shot instruction sessions (Johnson & Lindsay, 2006). advocate for the effectiveness of credit courses (Davis, Lundstrom & Martin, 2011; Partello, 2005). Some authors argue that one-shot instruction sessions can be effective, but are improved by using active learning techniques in place of the traditional lecture and demonstration (Hollister & Coe, 2003), and that their effectiveness depends heavily on effective collaboration with subject faculty (Derakhshan & Singh, 2011). However, collaboration can be difficult, as librarians and subject faculty do not always agree about which methods are most effective (Davidson, 2001), and subject faculty are often less invested in information literacy than are library faculty (Julien & Genuis, 2011).

Ultimately, library researchers conclude that the most effective way to teach information literacy is to use multiple forms of instruction, so that in-class, one-on-one, and asynchronous methods can complement each other's strengths and weaknesses (Mahaffy, 2012; Tumbleson & Burke, 2010). Embedded librarianship typically includes several methods of librarian/faculty contact; as a result, some researchers advocate it as the best overall approach

(Jacobsen & Mark, 2000; Tumbleson & Burke, 2010).

METHODOLOGY

To study librarians' instructional practices and preferences, a survey was distributed to all full-time faculty librarians within the CUNY Library System. The authors chose to focus on this university system rather than targeting a national listsery in order to encourage the participation of librarians with a variety of different perspectives, not the high-achieving and highly instruction-oriented librarians who characteristically participate in professional listservs. Although the small population may limit generalizability, this effect is balanced by the diversity of the colleges belonging to the CUNY, which includes community, senior, and graduate colleges a wide variety of missions. populations, and strengths. As a result, survey participants were more likely to provide a broad range of experiences and opinions regarding instruction. represents a different kind of professional microcosm than instructional listservs frequented by the most engaged among us.

The researchers contacted administrative authorities to obtain a list of [its] librarians who had full-time faculty status. As of May 1, 2013, 246 full-time faculty librarians were employed across the CUNY's 20 campus libraries (at the time of this survey, four campuses did not have their own libraries). Library employees with other status designations were not included in the survey because titles in non-faculty lines often do not indicate whether the individual in question is a librarian or a member of the support staff.

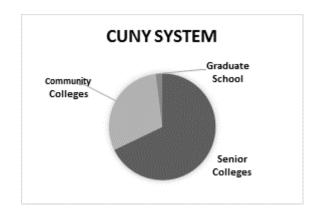
With the approval of the local Institutional Review Board, the survey was distributed by email to all the librarians included on the list. The survey was hosted online through SurveyMonkey. Data collection took place for two weeks early in the fall 2013 semester. After the first week, a reminder email was sent to all potential participants. The survey was anonymous and personally identifying information was not solicited. To protect the participants' identities, blind carbon copies were used for both the initial email and the reminder. Once the data collection was complete, the text responses were grouped according to themes and coded by the researchers. Quantitative data was analyzed for mean, median, and mode using Microsoft Excel.

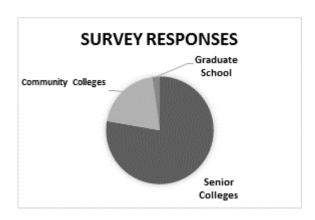
RESULTS

Of the 246 librarians surveyed, 44 responded, for a response rate of 18%. According to Sauermann and Roach (2013), a response rate of 10-25% is common for detailed online surveys, putting this survey in the expected response range. Although the researchers specified in the introductory letter that responses from all faculty librarians were of interest, public service librarians dominated the responses. Thirtyone respondents identified themselves as public services librarians, while only one library administrator and two technical services responded. librarians Ten respondents described themselves belonging to more than one of these functional groups.

Four-year (senior) colleges were also somewhat overrepresented in the survey responses. While 30% of CUNY librarians work in community colleges, they only

FIGURE 1—SURVEY RESPONSE BY INSTITUTION TYPE VS. DISTRIBUTION OF LIBRARIANS WITHIN CUNY





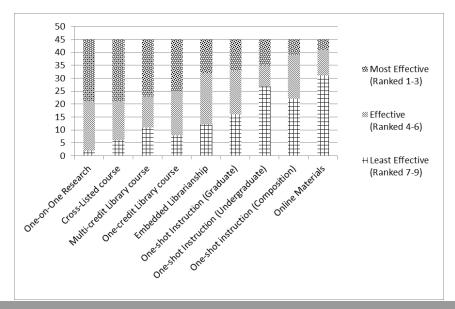
made up 20% of the responses. Thus, these results are slightly skewed to represent the perspective of instruction librarians at senior colleges over those at community colleges (see Figure 1).

Types of Instruction

Librarians were asked to rank several types of instruction according to their perceived effectiveness, rating the most effective type a "one," the second most effective a "two," and so on. A free-text question followed, which required librarians to justify their rankings (see Figure 2).

Overall, the rankings indicated a clear preference for one-on-one research consultation, followed by credit courses of various types (cross-listed, three-credit, and one-credit courses), with one-shot

FIGURE 2—PERCEIVED EFFECTIVENESS OF TEACHING METHODS



instruction sessions following and online research materials ranking far behind the other types of instruction.

Librarians' beliefs about which types of instruction are most effective did not necessarily reflect the types of instruction practiced on CUNY campuses (see Table 2).

Despite the consensus that online materials constituted the least effective type of instruction, 60% of respondents had created online guides in the past two years. Similarly, one-shot instruction for first-year composition and other undergraduate courses were ranked very low for effectiveness, but over 80% of respondents had engaged in each.

Respondents' interest in participating in these various forms of instruction was directly affected by their perceived effectiveness of the method. As Figure 3 shows, respondents reported the greatest interest in providing research consultations and teaching cross-listed credit courses, and less interest in one-shot sessions and online instructional materials. Respondents showed interest in teaching credit courses at a much higher rate than they actually taught them.

DISCUSSION

Pedagogical Effectiveness

In the free-text responses, librarians indicated several reasons for the effectiveness rankings they had given,

TABLE 2—Types of Teaching Methods Used within the Last Two Years

Teaching Method	Number of librarians who have done this within the past two years	Percentage
One-shot Instruction (Undergraduate)	40	89%
Research Consultation	39	87%
One-shot Instruction (Composition)	38	84%
Online Materials	27	60%
One-shot Instruction (Graduate)*	26	58%
Embedded Librarianship	10	22%
Cross-listed course	8	18%
Multi-credit Library course	6	13%
One-credit Library course	3	7%

^{*}The community college instructors in the survey had not done any one-shot instruction in graduate courses because they do not serve that population. Among other respondents, 72% had done one-shot instruction for a graduate course.

including time spent with students, the student-driven nature of certain interactions, connection to the curriculum, student preparedness, the degree to which instruction is tailored to the student's specific needs, and the challenges of collaboration

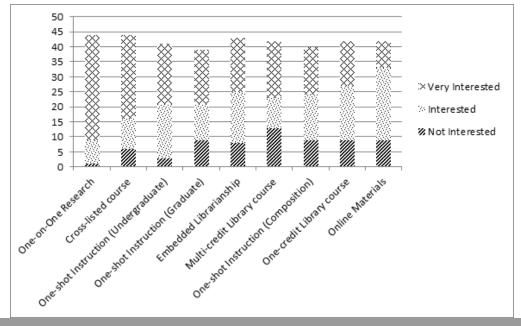
Time for interaction with students was considered a major strength of credit courses and one-on-one research assistance, and a drawback of one-shot instruction sessions. One respondent wrote: "One-shots are notoriously difficult to produce the desired results of information literacy, even for the limited purposes for which they are usually designed. There is simply not enough time, and usually too many students in the session...." However, librarians were also wary of engaging in types of instruction that are perceived as too time-consuming, especially credit courses. One respondent wrote, "While teaching is an important

component of librarianship ... [teaching credit courses is] a massive time-sink that makes it difficult to engage in the activities that really make librarianship unique." Time pressure helps to explain why credit courses, although rated more effective than one-shot instruction sessions, were also far less common

Students' preparedness and voluntary participation were given as explanations for both the high perceived effectiveness of one-on-one research help and the general preference for one-shot instruction with graduates and advanced undergraduates rather than first-year composition students.

Although there is a general professional trend away from reference desk staffing (Sonntag & Palsson, 2007), the survey respondents rated one-on-one research consultations as both the most effective type of instruction and the one that they most

FIGURE 3—INTEREST IN TYPES OF TEACHING



preferred. Respondents felt that reference interactions were effective because they lower the barrier between librarian and student, are most likely to be driven by the students' need for information, and have a clear connection to the curriculum. Some comments emphasized the importance of student motivation: "Teaching at the reference desk or in one-on-one consult or in ... workshops that students voluntarily attend are the most effective because they are motivated to learn about what they are asking and they focus and pay attention." Other respondents focused on the affective dimension:

Working one on one with a patron is the most effective way to get the information across in a way that the patron understands. They can ask questions without fear of seeming dumb and the session can be easily geared towards his/her specific information need.

Similarly, one-shot sessions for graduate undergraduates advanced perceived as more effective due to students' motivation and the relevance of the session. Among one-shot sessions, the average ranking corresponded to the level of the Graduate students in particular student frequently described were as motivated to learn. One respondent wrote: "Graduate students are often motivated by personal interest for their coursework or future job prospects and are more likely to participate and benefit from workshops or one-shot sessions." Another respondent wrote, "One-shot instruction sessions, especially undergraduate, may not be the most 'overall effective' for student learning especially some students.

undergraduate classes, are not sufficiently motivated, or focused prepared. immediately benefit from a random oneshot instruction session." However, this same respondent noted that "because oneshot instruction sessions are the type of teaching through which librarians reach the greatest number of students, they remain valuable and should be welcome until a better alternative reaching no fewer students takes their place." Another survey participant rated one-shots in graduate classes the most effective, because "Students are motivated and have prior knowledge of research sources." Comments such as these imply that librarians believe that instruction is more effective when addressed to students who tend already to be engaged with their studies, rather than that specific types of instruction can create Librarians' instructional engagement. preferences aligned with these perceptions. Although more librarians expressed interest teaching one-shot sessions undergraduate than graduate students (perhaps partly because the community college librarians have no graduate students to teach), both types of one-shots were much more likely to be considered desirable session the one-shot with a composition course.

Finally, relevance and specificity of the type of instruction in relation to the student's considered needs were to increase effectiveness. Several comments about reference interactions one-shot and instruction sessions focused on the of "tailoring" importance instruction appropriately to fit a student's needs. When discussing one-shot instruction sessions, more than one librarian commented that it was important for the session to intervene in

a particular assignment in a useful way in order for it to have an impact on the student. It is worth noting that, although credit courses were ranked highly overall, many librarians were skeptical of them due to their lack of curricular integration. commented "I don't know that I believe in stand-alone for-credit library courses. Library instruction is most effective when tied to a particular discipline, closely integrated with a course or other courses they're taking in their major." Another respondent, ranking all credit courses at the bottom of the survey, pithily remarked: "Instruction is only meaningful within a disciplinary context and at point of need." There seems to be a trade-off between the amount of time with students that credit courses provide and the degree to which instruction is perceived to take place at the point of need.

While some articles have framed embedded librarianship as a way to achieve both curricular integration and a high degree of contact with the students (Tumbleson & Burke, Drewes & Hoffman, 2010), there was little consensus about its effectiveness in this survey. It was also the least commonly indicated method of instruction; only ten (22%) of the librarians in our survey had been embedded. One of the respondents commented that those librarians at their institution who had been embedded were "not sharing well," so there may be little local information about the strengths and weaknesses of embedded librarianship. Some librarians believed it held great meaningful promise for curricular integration of library instruction, but one respondent described it merely as a "buzzword."

Pedagogical Values

The researchers were interested not only in what makes one type of instruction more effective than another, but also what exactly librarians hope to teach students.

Many responses to this question closely reflected the ACRL Information Literacy Standards Competency for Higher Education (2000). Librarians were interested in helping students to define research questions, locate information using specific search strategies, use and understand information, evaluate information, and exercise academic integrity in their writing. Other responses did not map as neatly to the Standards but emphasized academic skills. critical thinking, understanding different types of information, and the research process.

Although some of the responses elsewhere in the survey indicated a desire for librarians' teaching to place more emphasis on critical thinking and less on the mechanical aspects of searching, search strategies comprised the largest group of responses. These goals included such skills as database searching, finding books, using keywords, and finding information without the aid of a library. Meanwhile, identifying research questions and exercising academic integrity were mentioned in only one comment each.

Using and understanding information, evaluating information and critical thinking, and academic skills also attracted many comments. One respondent commented that students should, "understand the process of searching for materials (and that it is multifaceted, not a single search)." Another respondent commented that it was important to teach students "how to think critically,

intelligently and holistically about their research topics (which expands their use of vocabulary, search strategies, etc.)." The ability to use and understand information included comments about reading critically, analyzing information, and collating information from several sources. A number of comments mentioned evaluating sources, using particular types of sources, and corroborating information among sources.

Other comments mentioned affective factors persistence, curiosity, flexibility, rethinking one's ideas, taking risks when exploring new topics, and even such mundane skills as time management. respondents mentioned critical thinking explicitly. Others focused on disciplinary skills like understanding how knowledge is structured and disseminated in a particular field. It is worth noting that a majority of the survey participants reported that teaching was a significant part of their job; in fact, some librarians would prefer to teach even more than they do.

LIMITATIONS

This work is preliminary and further research is needed before drawing conclusions about librarian preferences in library instruction. Since the survey was focused on a small group of librarians at a specific university system, they may not reflect the perceptions of academic librarians in other institutions, or other areas, or the profession as a whole. Furthermore, the response rate for certain groups of librarians was low, especially community college librarians, librarians at graduate institutions, and librarians working in areas other than public services. Despite the researchers' attempts at inclusivity, the survey results are more likely to reflect the opinions of public service librarians working in senior colleges.

The overall response rate was 18%, which represents a relatively small proportion of potential respondents. More importantly, the total number of responses is small, so care must be taken with interpreting the results.

The results of the survey align well with those of larger, similar surveys. Like other libraries studied, CUNY librarians teach a lot of one-shot sessions, but many of them believe that other forms of instruction are more effective, especially those that allow more time with students or catch students at the most appropriate point of information However, other survey results may need. reflect specific aspects of environments. Further research will shed additional light on the results described here.

FURTHER RESEARCH

Future work in similar affiliated groups of colleges would allow for a comparison among institutions. Specific populations of librarians had a disappointingly low response rate, especially community college librarians and librarians outside of traditional "instructional services" titles. Future surveys targeted directly to these populations may draw a greater response.

The researchers found few articles that included surveys of students and subject faculty in addition to or instead of librarians. In those articles, the differences between librarian preferences and the preferences of

their constituencies were striking (Davidson, 2001). Further research might seek to discover whether this holds true elsewhere and the reasons for these discrepancies.

The survey described in this article covers many aspects of information literacy instruction, which could easily be expanded in more specific surveys. In particular, the free-response questions about librarians' values with regard to instruction were quite revealing and could easily form the basis for another survey.

CONCLUSION

The goal of this study was to evaluate librarians' perceptions of the effectiveness of different teaching models. The librarians surveyed believed that one-on-one research consultation was the most effective teaching method and that online guides were the least effective. Many librarians believed that effectiveness of instruction depends on time spent with students, student preparedness, and curricular integration. Although not considered the most effective, one-shot classroom instruction was the most prevalent model. Perceived effectiveness was not the only factor that determined the contexts in which librarians teach: time is also one of the most important factors, as is reaching a large number of students.

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