Research agenda for library instruction and information literacy

The updated version

by the Research and Scholarship Committee of ACRL's Instruction Section

The "Research Agenda for Library Instruction and Information Literacy" is organized into four main sections: learners, teaching, organizational context, and assessment. Each section poses general questions with the goal of encouraging those interested—practitioners, researchers, and students alike—to conduct research around these important areas. Many studies published since the previous Research Agenda have focused on a specific environment, situation or audience, making it difficult to generalize the conclusions for other contexts. It is hoped that this Research Agenda will encourage researchers to experiment with a range of research methods, to revisit issues and focus on different variables, and to collaborate among institutions so that results are meaningful for wider audiences.

I. Learners

Academic library users represent diverse ages, ethnicities, and abilities. Information-seeking behaviors, technological competencies, and research skills vary widely among learners, presenting a challenge for librarians. By understanding more about these audiences, instruction librarians can create meaningful educational environments and enduring library instruction programs that meet an individual's current and future needs as a student and lifelong learner.

A. Audiences

Over the past 20 years, formal and informal library instruction has evolved to include many groups previously underserved or unacknowledged. These populations include groups such as at-risk students, English-as-a-second-language (ESL) and international students, students with disabilities, returning adult students, off-campus and distance education students, high school groups, part-time and adjunct faculty, graduate and teaching assistants, campus staff, and administrators. Each of these audiences presents unique issues for library instruction and information literacy programs.

1. How has the emergence of new campus audiences had an impact on academic library instruction?

2. How can instruction best adapt to changes in the characteristics of the audiences?

3. What issues should librarians be aware of for marketing and promoting to these groups?

4. How might the type and timing of instruction be best tailored to each audience?

B. Skills

In order to use electronic information resources efficiently, scholars must sharpen their computer literacy and information literacy skills. Since many students turn to the Internet as their primary tool for research, they need technological competencies and an increased sophistication in the selection of the materials, perhaps even more so than in the past. Critical evaluation, ethical use of online content, and focus on the new technologies themselves have become important facets for inclusion in instruction programs for students and faculty alike.

In the April 1980 issue of *C&RL News*, the ACRL Bibliographic Instruction Section Research Committee published the "Research Agenda for Bibliographic Instruction." The Research Agenda outlined important research questions related to instruction programs in academic libraries, with the hope that research would inform decisions about effective approaches for providing, managing, and evaluating classes and programs. Since its release 20 years ago, many aspects of the instructional environment have changed, including identification of new user populations, development of increasingly networked technologies, reorganization of campus agencies, increased emphasis on academic accountability, and an evolving educational role for libraries and librarians.

Charged with updating the document in 2000, the ACRL Instruction Section (IS) Research and Scholarship Committee re-

viewed research articles formally published in the United States and gathered input from national conferences to identify important research areas relevant to academic library instruction programs in the current environment. While many of the original issues still lacked substantial research, new themes also arose. Similarly, the scope of the document was expanded to include an emphasis on information literacy, reflecting the transition that our institutions and organizations are experiencing.

The ACRL IS Research and Scholarship Committee members, 2000–2002, are: Elizabeth Dupuis (chair), Melissa Becher, Susan Brant, Jeffrey Bullington, Jean Caspers, Jeris Cassel, Elizabeth Evans, Karen Evans, Carolyn Frenger, Allison Level, Cynthia Levine, Glenn McGuigan, John Riddle, Linda Roccos, and Joseph Yue.

1. How have information-seeking behaviors of library users changed?

2. How has use of the Web changed perceptions and use of the library?

3. How is technology altering the need for certain types of skills?

4. What impact does the relationship between students' actual and perceived library and research skill levels have on their information-seeking behaviors?

C. Learning styles

Tailoring library instruction sessions to accommodate various learning styles—such as visual, auditory, and kinesthetic—has gained prominence in the past few decades. Discerning how different learners will learn most effectively, how to balance the variety of styles preferred in one class, and how to adapt to these learning styles in both traditional and online learning environments requires special attention.

1. How effective are different methods of instruction for addressing various learning styles?

2. What characteristics of learning environments positively impact the experiences of people with each of the various learning styles?

3. What impact do different learning styles have on the effectiveness of various teaching methodologies?

4. What impact does the Internet, as a teaching tool, have on learning styles, and what are the implications for library instruction?

II. Teaching

As with all instruction, library instruction and information literacy can be informed by a variety of pedagogical theories and techniques. The design and implementation of a library class or course will be driven largely by the teaching methodology the instructor adopts. Methods, such as problem-based learning, collaborative learning, and hands-on learning; tools, such as presentation software or electronic classrooms; and the nature of the class, such as credit, noncredit, course-integrated, or optional, all affect the impact of the instruction given. Maintaining the skill sets to address all of these issues relates to ongoing questions about professional development for those teaching research and information literacy skills.

A. Pedagogy

Library instruction has foundations in educational pedagogies including liberal, traditional, behavioral, progressive, and radical. Simultaneously, the pedagogy of library instruction is furthered by its engagement with disciplines—such as cognitive science, information architecture and design, and human-computer

interaction—and concepts such as action research, distance education, home-schooling, learning communities, and multiculturalism. There is a continuing need for research into the pedagogical basis of library instruction and the application of educational theories and methodologies to actual library instruction.

1. Has library instruction developed its own theoretical basis and methodologies? If not, should it?

2. What is the scholarship of teaching and what has been its impact on library instruction?

3. How has the pedagogy of library instruction been affected by the emergence of such concepts and disciplines as listed above?

4. Is library instruction an appropriate setting for teaching critical thinking skills and evaluation of information? If so, what are the best ways to approach these concepts?

B. Design and implementation

Traditional library instruction classes are developed based on many factors, including varying characteristics of the audience and assignments, course nature and curricula, classroom settings, availability of instructional tools, and faculty needs. Development of information literacy courses or components involves a more holistic approach to determining the educational needs of students as they progress through their academic lives, as well as collaboration with other librarians and educators.

1. What are effective models of library instruction for general versus subject-specific courses?

2. How does the structure and delivery of instruction differ when organized according to goals or concepts, such as lifelong learning, subject-based teaching, course-integrated instruction, course-related instruction, or credit-bearing library courses?

3. To what extent can instructional projects created to serve one audience be effectively adapted to serve others, such as a program designed for distance education students adapted for the general campus user population or vice-versa?

4. Can effective, scalable instruction be developed for institutions of all sizes?

C. Methods of instruction

Educational techniques—such as tours and demonstrations, active learning, problem-based learning, social or community-based learning, self-directed or independent learning, and action learning—can all be adapted for the range of traditional, electronic, and virtual learning environments. In each environment, it is important to consider what array of approaches to instruction— such as formalized classes during the course time, voluntary-attendance workshops, online assistance, and one-on-one consultations—provide the most effective support for learners. Approaches for the development of effective library assignments, resources, and tutorials in print and online deserve more concentrated research.

1. Can traditional teaching methods be successfully applied to Web-based instruction?

2. How effective is online instruction as compared to more traditional instruction methods?

3. Are problem-based assignments more effective than library-created assignments?

4. How effective are stand-alone assignments compared to course-integrated assignments?

5. How can assignments effectively integrate print and digital information sources?

6. What is the relationship between effective instruction and the timing of assignments?

7. How effective are different types of delivery methods for course-related instruction?

8. How can libraries effectively build upon the relationships between formal library instruction, one-on-one consultations, and integrated information literacy skills?

D. Library teaching and continuing education

Recognition of the need for ongoing education for librarians providing instruction has grown significantly in recent years. Various models currently exist within the profession for developing instruction skills, including library school courses, continuing education programs, workshops, seminars, conferences, institutes, computer-based instruction, and texts; however, research could determine the need for and impact of directing additional resources towards developing librarians' instructional techniques and expertise.

1. What are the most effective ways for a librarian, who has previously done little or no teaching, to learn fundamental methodologies and pedagogies?

2. What educational skills from other teaching professions are relevant for librarians?

3. How can an institution ensure that librarians participating in information literacy efforts have the knowledge and skills to make the program successful?

4. What impact does assessment of instruction, such as teaching portfolios or peer observation, have in the promotion and tenure process?

III. Organizational context

Library instruction exists both as a function within the library and as a part of the overall mission of the university, college, or educational institution. Library instruction and information literacy programs can be organized and managed according to different models, influenced by the internal structure of the library. The success of information literacy and library instruction initiatives is also highly dependent on the larger institutional environment. Factors such as the level of cooperation between academic departments, the perception of librarians as teachers and faculty colleagues, and expectations for the library determine how these programs are implemented and sustained.

A. Relationship within the library organizational structure

The organizational structure of information literacy or library instruction programs varies from library to library. Some examples of specific organizational models include a separate instruction unit or department with librarians assigned to it, team coordination of instruction, an instruction coordinator who does not supervise librarians directly, and instruction duties merged with reference or subject responsibilities. Organizational differences determine instruction librarians' responsibilities within the library, with academic departments, and elsewhere in the institution. Questions remain about the benefits and drawbacks of different organizational models.

1. What impact do different organizational models have on library instruction?

2. How does instruction as a function overlap with, and what is its impact on, other services in the library such as reference, distance education, and Web development?

3. What professional roles and responsibilities would enhance the ability of librarians to provide high-quality instruction?

4. Is it more effective for generalists, subject specialists, or a combination of the two at different levels to teach information literacy and library instruction?

5. What incentives support the development and delivery of high-quality library instruction?

B. Relationship to the larger institutional environment

To formulate an effective instruction program, it is necessary to understand and work effectively with administrators, faculty, staff, students, alumni, and community patrons. Familiarity with departments and campus organizations similarly concerned with student educational outcomes—such as faculty teaching centers, writing centers, and evaluation agencies—and participation in campus-wide planning offer possibilities for new partnerships. Issues such as faculty status of librarians, promotion and tenure guidelines, and institutional governance are important factors to consider when implementing changes in existing instructional programs or developing new ones.

1. What university characteristics—academic, administrative, or cultural—lead to an environment supportive of library instruction?

2. How does the perception of the librarian's status and role in a student's education affect the success of library instruction initiatives?

3. Do campus-wide information literacy requirements facilitate quality library instruction programs, and if so, how?

4. How can we identify and work with courses, academic departments, and other offices providing student and faculty support to ensure that library instruction has a broad impact?

5. How can standards for information literacy be coordinated with and complement

Panel session

The Research Agenda for Library Instruction and Information Literacy will be the subject of a panel session, "Put Instruction on Your (Research) Agenda," at the ACRL 11th National Conference, April 10–13, 2003.

Inquiries and suggestions are welcome, contact Committee Chair Melissa Becher at e-mail: mbecher@american.edu or visit the committee Web site at http://www.ala.org/acrl/is/commitee/webpages/research/index.html.

other professional organization standards, subject-area standards, K–12 standards, or other model academic standards?

C. Relationship with faculty

A primary goal of many library instruction programs is to support the courses and curricula of the institution. As an increasing focus is placed on sustaining information literacy programs, coordination with the faculty responsible for planning and offering the courses becomes essential. Whether promoting a library instruction program, consulting about assignments, or team-teaching a course, relationships with faculty members on an individual and departmental level become preeminent.

1. What techniques are effective for promoting course-related instruction services to faculty?

2. How can librarians and teaching faculty partner to ensure that students gain information literacy skills?

3. What are the benefits and drawbacks of team teaching with faculty?

4. To what extent are nonlibrary faculty receptive to collaboration with librarians, and what factors influence receptivity?

5. What are the characteristics of effective research instruction conducted by teaching faculty, teaching assistants, or other nonlibrarians?

6. Do the different ways in which librarians and teaching faculty perceive research have an effect on how students learn research skills?

IV. Assessment

Assessment and evaluation are essential parts of documenting the effects of library instruction and information literacy programs. Future research in the areas of assessment, evaluation, and transferability needs to address involvement from stakeholders other than librarians and include an integration of discipline-based standards or model academic standards. Information literacy programs need to show that skills learned are transferable from one discipline to another and from secondary school to higher education and beyond.

A. Evaluation of instructors and programs

Evaluation of instruction and information literacy programs is a key component in determining the value of programs, activities, and techniques within the educational process and to determine areas needing attention. Administrators are demanding justification for programs through cost-benefit analyses of programs and activities, and requiring evidence of successful learning outcomes.

1. What are the most effective and ethical methods for evaluating librarians as teachers?

2. What variables must be considered in research questions to measure outcomes for a library instruction or an information literacy program?

3. What are the most effective tools for assessing the impact of a library instruction or an information literacy program?

4. How effective are formative versus summative assessments of instruction in libraries?

5. How can we institute a culture of assessment at our libraries?

B. Assessment of learning outcomes

Assessment of educational outcomes provides measurable accountability for both teacher and learner. An increasing number of articles are focusing on assessing learning outcomes in relation to specific goals and standards. The research literature focuses primarily on first-level students in general courses (e.g., composition) with increasing emphasis on discipline-based courses (e.g., education, engineering, music, psychology) and a few articles on graduate and doctoral level students and courses. There is also an increasing number of articles on the collaboration of faculty and librarians in assessing/evaluating library instruction. Surveys, case studies, and pre-tests and post-tests continue to represent the assessment/evaluation tools most used. The tools are administered most often to students who participated in some form of library instruction, i.e., course-integrated sessions, credit courses, and tutorials.

1. In what ways does information literacy instruction have a lasting impact on the ways individuals approach or think about research?

2. How do library instruction and library usage impact academic success?

3. How can assessment of information literacy be integrated into other institutional assessment measurements?

4. What are the most effective tools for benchmarking information literacy abilities and progress?

5. What, if any, standardized testing methods can be developed to assess information literacy abilities in various groups of learners?

6. What are the most cost-effective methods for assessment of learning outcomes?

C. Transferability

Transferability of successful models of information literacy programs—whether between courses at the same institution or between institutions—is important for furthering collaboration and developing models of best practices. Current research concentrates on assessing the instruction designed for specific research projects, and focuses on student attitudes, opinions, and satisfaction with a library instruction experience and library research experience. The literature is lacking in longitudinal studies on the impact of library instruction, and the transferability of secondary school library instruction learning outcomes to higher education and on into adult life.

1. How are the skills and knowledge developed through library instruction transferable to other research assignments, adult life situations, and the workplace?

2. How can librarians maximize the transferability of skills from one class to another, or one campus to another?

3. What is the correlation between library instruction and research skill improvement during four years of undergraduate education? ∎

Notes

1. This list only applies to the literature for which the permission crisis is solved. In my terms, it only applies to open-access literature, not to all literature. The items in the list overlap somewhat, not only with one another, but with items bearing on the solution to the pricing crisis.

2. The only constraint that authors might want to enforce is that no one should distribute mangled or misattributed copies. This is a reason for authors to retain copyright. Authors who don't care to enforce these constraints, or who live in moral-rights countries where they are enforceable even without copyright, could put their works into the public domain.

3. Open Archives Initiative, http://www.openarchives.org/.

4. There are two packages of open-source software for OAI-compliant archives: Eprints (Southampton University), http://software.eprints.org/, and Dspace (MIT), http://web.mit.edu/dspace/.

5. Peter Suber, "Momentum for Eprint Archiving," *Free Online Scholarship Newsletter,* August 8, 2002, second story, http://makeashorterlink.com/?X11423092.

6. For more details, see the Self-Archiving FAQ, http://www.eprints.org/self-faq/.

7. The Scholarly Publishing and Academic Resources Coalition (SPARC) maintains the most comprehensive list of journal-management software, http://www.arl.org/sparc/core/index. asp?page=h16. Some of this software is expensive and some of it is free and open-source. An example of the latter is the Public Knowledge Project's Open Journal Systems, http://www.pkp.ubc.ca/ojs/.

8. BioMed Central, http://www.biomedcentral.com/.

9. For more on the funding model for open-access journals, see Budapest Open Access Initiative FAQ, http://www.earlham.edu/~peters/fos/boaifaq.htm. Peter Suber, "Where Does the Free Online Scholarship Movement Stand Today?" *Cortex,* 38, 2 (April 2002): 261–64. http://www.earlham.edu/~peters/writing/cortex.htm. Peter Suber, Open Access to the Scientific Journal Literature," *Journal of Biology,* 1, 1 (June 2002) page 3f. http://www.earlham.edu/~peters/writing/jbiol.htm.

10. What librarians can do to facilitate open access in general, http://www.soros.org/openaccess/help.shtml#libraries. What librarians can do to facilitate eprint archiving in particular, http://www.eprints.org/self-faq/#libraries-do. Answering some library-specific questions and objections about open-access, http://makeashorterlink.com/?G27212392. Reprinted in Walt Crawford's *Cites and Insights,* November, 2002, pages 12–14, http://home.att.net/~wcc.techx/civ2i14.pdf.

11. What scholars can do to facilitate open access in general, http://www.soros.org/openaccess/help.shtml#scholars. What scholars can do to facilitate eprint archiving in particular, http://www.eprints.org/self-faq/#researcher/authors-do. ∎