

## ***Annotated Bibliography***

### **GENERAL RESEARCH SOURCES**

Best, Joel. 2001. *Damned lies and statistics*. Berkeley: University of California Press.

Examines common problems in statistical research, including poor definitions, flawed measurements, and weak sampling.

Coffee, Amanda & Paul Atkinson. 1996. *Making sense of qualitative data: Complementary research strategies*. Thousand Oaks, CA: Sage.

Covey, Denise Troll. 2002. *Usage and usability assessment: Library practices and concerns*. Washington DC: Council on Library and Information Resources.

<http://www.clir.org/pubs/reports/pub105/pub105.pdf>

Offers a survey of common methods for assessing the use and usability of online collections and services. Describes the application, strengths, and weaknesses of assessment techniques that include surveys, focus groups, user protocols, and transaction log analysis. Extensive bibliography.

Crossen, Cynthia. 1994. *Tainted truth: The manipulation of fact in America*. New York: Simon and Schuster.

Addresses a number of problems common to statistical research, including sampling, survey questions, and experimental protocols.

Gerhen, David. 2001. Statistical significance: How it signifies in statistics reference.

*Reference & User Services Quarterly*, 40 (4), 361-374.

Guides readers through basic statistical principles, definitions and methods. Discusses useful methods to test statistical significance. Provides examples using t-tests and analysis of variance (ANOVA).

Girden, Ellen R. 1996. *Evaluating research articles from start to finish*. Thousand Oaks, CA: Sage.

Provides samples of research articles using a range of methodologies—case studies, narrative analyses, surveys, correlation studies, regression analysis studies, factor-analytic studies, discriminant analysis studies, two-condition experimental studies, single classification studies, factorial studies, and quasi-experimental studies—and evaluates both their methodologies and statistical treatments.

Gunn, Holly. 2002. Web-based surveys: Changing the survey process. *First Monday*.

[http://www.firstmonday.org/issues/issue7\\_12/gunn](http://www.firstmonday.org/issues/issue7_12/gunn).

Describes various types of Web-based surveys, as well as potential problems in and strategies for their implementation.

Hafner, Arthur W. 1998. *Descriptive statistical techniques for librarians*. 2<sup>nd</sup> ed. Chicago: American Library Association.

Basic text that provides easy to understand explanations of statistical methods as well as sampling strategies and performance measures for libraries.

Heron, Peter & Robert E. Dugan. 2002. *An action plan for outcomes assessment in your library*. Chicago: American Library Association.

Chapter 7 addresses the research process.

Janes, Joseph. 1999. Survey construction. *Library Hi Tech*, 17 (3), 321-325.

Katzer, Jeffrey, Kenneth H. Cook, & Wayne W. Crouch. 1998. *Evaluating information: A guide for users of social science research*. Reading, MA: Addison-Wesley Publishing. Describes various research methods, sampling and statistical techniques, and experimental considerations (such as observer effects), as well as generalizability, reliability, and validity.

Manfreda, Katja Lozar, Zenel Batagelj & Vasja Vehovar. 2002. Design of web survey questionnaires: Three basic experiments. *Journal of Computer-Mediated Communication*, 7 (3). <http://www.ascusc.org/jcmc/vol7/issue3/vehovar.html>. Discusses effects of measurement and non-response error with Web surveys, as well as one-page versus multi-page survey designs, use of advanced graphics (such as logotypes), and affects of survey topics on response rates.

Mishler, Elliot G. 1986. *Research interviewing: Context and narrative*. Cambridge, MA: Harvard University Press. Discusses various considerations in interview-based research, including observer effects, transcription, and coding.

Potter, W. James. 1996. *An analysis of thinking and research about qualitative methods*. Mahwah, NJ: Lawrence Erlbaum Associates. Covers a range of qualitative methodologies: ethnography; ethnomethodology; reception study; ecological psychology; symbolic interactionism; cultural studies; textual analysis; comparative illustrations. Addresses issues of evidence gathering, document examination, interviewing, and observation, as well as use of multiple methods. Also discusses descriptive, interpretive, explanatory, critical, or advocating reporting. Especially strong on problems of operationalization.

*Sample Size Calculator*. <http://www.surveysystem.com/sscalc.htm>.

Calculator allows users to determine the “proper” sample size for a given population size and desired confidence level. Reverse calculator allows users to enter the characteristics of an existing survey and determine the confidence level for the results. Site also discusses statistical significance and survey design.

Tenopir, Carol. 2003. *Use and users of electronic library resources: An overview and analysis of recent research studies*. Washington DC: Council on Library and Information Resources. <http://www.clir.org/pubs/reports/pub120/pub120.pdf>.

Describes various research methods—observation, surveys, interviews, experiments, transaction log analysis, log file analysis, focus groups, qualitative user surveys, ethnography, student essays, critical incident, demographic and usage questions.

Vaughan, Liwen. 2001. *Statistical methods for the information professional: A practical, painless approach to understanding, using, and interpreting statistics*. Medford, NJ: Information Today.

Von Seggern, Marilyn & Nancy J. Young. 2003. The focus group method in libraries: Issues relating to process and data analysis. *Reference Services Review*, 31 (3), 272-284.

Describes use of focus groups as well as coding and analysis of qualitative data using *The Ethnograph*. Includes lengthy bibliography on focus group research in library settings.

**SAMPLE STUDIES**

Bar-Ilan, Judit. 2002. How much information do search engines disclose on the links to a Web page? A longitudinal case study of the 'cybermetrics' home page. *Journal of Information Science*, 28 (6), 455-466.

Researching who has linked to a particular page over time. Content analysis (in terms of document type, creator, and language) of pages linking to the cybermetrics home page.

Baron, Sara & Alexia Strout-Dapaz. 2001. Communicating with and empowering international students with a library skills set. *Reference Services Review*, 29 (4), 314-326.

600 surveys mailed to international student offices and university libraries at 300 universities in Arkansas, Arizona, California, Illinois, Kansas, Louisiana, New Mexico, Nevada, Oklahoma, Oregon, and Texas to assess the major challenges international students face in adjusting to a new culture, a new educational/library system, and another language. Looking for correlations. Appendices 2 and 3 reproduce survey instruments.

Boff, Colleen & Kristin Johnson. 2002. The library and first-year experience courses: A nationwide study. *Reference Services Review*, 30 (4), 277-287.

Survey of institutions working with the National Resource Center for the First-Year Experience and Students in Transition which had done its own studies in 1997 and 2000, to determine whether FYE course curricula contained a library component.

Carter, Elizabeth W. 2002. "Doing the best you can with what you have." Lessons learned from outcomes assessment. *Journal of Academic Librarianship*, 28 (1), 36-41.

Discusses the use of multiple instruments (pre- and post-tests, attitude and usage surveys, and focus groups) in assessing the effectiveness of library programs and services. Figures reproduce instruments.

Casserly, Mary F. & James E. Bird. 2003. Web citation availability: Analysis and implications for scholarship. *College & Research Libraries*, 64 (4), 300-317.

Examining 500 citations to internet resources from articles published in LIS journals between 1999 and 2000 to track stability of scholarly web sources.

Cheng, Rachel, Steve Bischof & Alan J. Nathanson. 2002. Data collection for user-oriented library services: Wesleyan University library's experience. *OCLC Systems & Services*, 18 (4), 195-204.

Discusses various research methods, including circulation and usage statistics, publication patterns, and survey data.

Cockrell, Barbara J. & Elaine Anderson Jayne. 2002. How do I find an article? Insights from a web usability study. *Journal of Academic Librarianship*, 28, (3), 122-132.

Usability testing of library web site with 20 faculty, 10 graduate students, and 30 undergrads following a think-aloud protocol. Usability test comprised of 20 common representative tasks developed by a committee of 6 librarians and pre-tested with students and staff. Survey questions included.

Colaric, Susan M. 2003. Instruction for Web searching: An empirical study. *College & Research Libraries*, 64 (2), 111-122.

Comparison of three instructional methods to determine differences in knowledge acquisition related to three types of knowledge associated with using a search engine – instruction by example, conceptual models without illustrations, and conceptual models with illustrations. Sample of 173 students total, divided into three groups.

Crum, Janet, Dolores Judkins & Laura Zeigen. 2003. A tale of two needs: Usability testing and library orientation. *Computers in Libraries*, 23 (1), 22-26.

Discusses usability testing (questionnaires and think-alouds) as a teaching method. Panel of reference librarians prepared list of questions for testing. Sample includes 158 students, who completed the questionnaire, as well as 10 who were observed.

Cudiner, Shelley & Oskar Harmon. 2001. Comparing the effectiveness of different presentation formats for workshops on introductory library skills. *Research Strategies*, 18, 49-61.

Experimental comparison of the difference in effectiveness between a real-time hands-on lecture/demonstration with a high active learning component and an eclectic format combining traditional passive lecture format with an active hands-on component. Pre- and post-instruction surveys/tests to measure student learning. Instrument published in article.

D'Angelo, Barbara J. 2001. Integrating and assessing information competencies in a gateway course. *Reference Services Review*, 29, (4): 282-293.

Describes the use of multiple assessment measures, including cumulated responses to students' one-minute papers, pre- and post-tests, rubrics, and standard class evaluation forms. Includes sample instruments.

Daragan, Patricia & Gwendolyn Stevens. 1996. Developing lifelong learners: An integrative and developmental approach to information literacy. *Research Strategies*, 14 (2): 68-81.

Uses pre- and post-testing of 234 cadets who entered the Coast Guard Academy in 1993 and 259 who entered in 1994 to measure success of instruction.

Dalrymple, Connie. 2002. Perceptions and practices of learning styles in library instruction. *College & Research Libraries*, 63 (3), 261-273.

Survey of instruction librarians to measure how much they know of and use learning style theory. 33 question instrument, pre-tested on 11 people. Survey sent via mail to 1,500 members of LIRT and IS in April 2000; 60.5% response rate.

Debowski, Shelda. 2001. Wrong way: Go back! An exploration of novice search behaviours while conducting an information search. *The Electronic Library*, 19 (6), 371-382.

48 first-year Business & Commerce students at two Western Australian universities exposed to databases and then asked to search for resources "on a complex four-concept task." Pre-testing of participants to measure prior experience with database searching. Search histories of participants stored on computer, with each line of search later analyzed to identify search effort, redundant activities, and strategy quality.

Dellavalle, Robert P. et. al. 2003. Going, going, gone: Lost internet references. *Science*, 302, 787-788.

Examined frequency, format and activity of internet references from three high-impact science journals and found that, of those articles containing internet references, an average of 13% of internet references were found to be inactive at 27 months after publication.

Dewald, Nancy H. 1999. Transporting good library instruction practices into the web environment: An analysis of online tutorials. *Journal of Academic Librarianship*, 25 (1), 26-32.

Examining 20 web-based library tutorials previously selected by the Research Committee of ALA's Library Instruction Round Table (LIRT) as examples of online library instruction to see to what degree they conformed to seven characteristics of effective LI. Characteristics of effective LI drawn from various sources cited in the text.

Donaghy, Roger. 2002. *Evaluating online newspapers using established Web design guidelines*. MA thesis: University of North Carolina at Chapel Hill.

Looking at newspapers' web sites in terms of 3 sets of guidelines created by Nielsen, Spool, and CNET. Newspapers identified from *Editor and Publisher*.

Dunn, Kathleen. 2002. Assessing information literacy skills in the California State University: A progress report. *Journal of Academic Librarianship*, 28 (1), 26-35.

Describes a multi-year assessment plan implemented by the CSU system in order to establish a baseline of IC skills in the CSU; to gather reliable data as support for programs of IC; to provide data to create targeted IC instructional experiences; and to provide support for the next phase system-wide strategic plan. Phase I involved a quantitative survey of 3,309 CSU students using six information scenarios. Phase II involved 67 students, 20 librarians, and 10 faculty in problem-solving tasks; computer activities recorded using screen captures and ethnographic field note data collected from observation of 16 students. [See also *CSU Information Competence Assessment Project*. <http://www.csupomona.edu/~kkdunn/ictaskforcearchive/ictaskforce.html>.]

Emmons, Mark & Wanda Martin. 2002. Engaging conversation: Evaluating the contribution of library instruction to the quality of student research. *College & Research Libraries*, 63 (6), 545- 560.

Evaluating effectiveness of a new LI program by comparing first-year student research papers written before and after the program was implemented. Sample portfolios evaluated in comparison to an analytic rubric covering "the presence of an arguable thesis, the use of source texts to support that thesis, the overall development of the argument, the development and coherence of paragraphs and sentences, and the control of conventional usage and mechanics." 30 portfolios randomly selected from the "before" and "after" pools and rated by 3 senior teaching assistants in the Freshman Writing Program. Raters blinded as to whether portfolio was pre- or post-change. Scoring rubric included in Figure 2. Bibliographies specifically examined.

Fagan, Jody. 2002. Students' perceptions of academic librarians. *The Reference Librarian*, (78), 131-148.

Survey of 48 undergraduate students regarding their perceptions of academic librarians. Compared results to Herson and Pastine's study of 362 students by questionnaire and 20 students by interview – although did not use same instrument. Survey instrument published in article. 48 questions: 30 selected-response and 6 constructed-response, as well as 3 checklists. Survey given to students in a library class.

Fenske, Rachel F. 1998. Computer literacy and the library: A new connection. *Reference Services Review*, 27 (2), 67-78.

Assessment of student learning using a 29-question test .

Fenske, Rachel F. and Susan E. Clark. 1995. Incorporating library instruction in a general education program for college freshmen. *Reference Services Review*, 23 (3), 69-74.

Administering the Illinois Association of College and Research Libraries *Library Skills Test* as a pre- and post-test measure. Testing 543 students, only 275 of which completed both tests.

Fister, Barbara. 1992. The research process of undergraduate students. *Journal of Academic Librarianship*, 18 (3), 163-169.

Interviewing 14 undergraduates who had successfully completed research processes to discover how their search processes compare to the search strategies frequently taught in LI sessions. Students described how they found a focus for their research, how they found and used evidence, and how they articulated their work in writing. Asking faculty to identify the students. Acknowledging weakness of students' self-reporting in hindsight. "Librarian" models described in reference to the literature.

Flaspohler, Molly R. 2003. Information literacy program assessment: One small college takes the big plunge. *Reference Services Review*, 31 (2), 129-140.

Experimental comparison of "traditional" and "enhanced" LI for students using multiple measures—analysis of 2,129 citations from 269 student bibliographies, an information literacy questionnaire, and aggregate data from an in-class writing exercise.

Freimer, Gloria R. & Margaret M. Perry. 1986. Student problems with documentation. *Journal of Academic Librarianship*, 11 (6), 350-353.

Looking at student difficulties in citing sources by interviewing faculty, surveying 20 students, and examining several style manuals.

Fry, Thomas K. & Joan Kaplowitz. 1988. The English 3 library instruction program at UCLA: A follow-up study. *Research Strategies*, 6 (3), 100-108.

Combination survey/test instrument given to 100 students who had participated in an LI program three years earlier, and the long-term effects of the program were compared to those realized three weeks after the program. Article reproduces the instruments used. [See also Kaplowitz. 1986. A pre- and post-test evaluation of the English 3-library instruction program at UCLA. *Research Strategies*, 4, 11-17].

Geffert, Bryn & Robert Bruce. 1997. Whither BI? Assessing perceptions of research skills over an undergraduate career. *RQ*, 36 (3), 409+.

Surveying ½ of senior class asking them to identify people, including themselves, from whom they had learned various research skills and tools, as well as to evaluate their comfort levels. Students also identified courses in which they received library instruction and rated the usefulness of LI sessions. 3 open-ended questions on problems students faced in researching. 216 students completed surveys; 65% response rate. Survey instrument in Appendix A.

Germain, Carol Anne, Trudi E. Jacobson & Sue A. Kaczor. 2000. A comparison of the effectiveness of presentation formats for instruction: Teaching first-year students. *College & Research Libraries*, 61 (1), 65-72.

Comparison of the effectiveness of in-person and Web-based instruction for first-year students. Using pre- and post-tests.

Greer, Arlene, Lee Weston & Mary Alm. 1991. Assessment of learning outcomes: A measure of progress in library literacy. *College & Research Libraries*, 52, 549-557.

Use of survey instrument with a test component against which students' self-assessed skills could be compared. Students' responses compared for differences across academic levels—from first-years through graduate students. Faculty also surveyed simultaneously.

Heller-Ross, Holly. 2002. Assessing outcomes with nursing research assignments and citation analysis of student bibliographies. *The Reference Librarian*, (77), 121-140.

Examining selected nursing course syllabi for research requirements and the resulting student research bibliographies as an outcome assessment. 441 bibliographic citations from 78 student papers in 1998-1999. Also looking for differences between on- and off-campus students. Discusses syllabi analysis, library use/instruction statistics analysis, rating of references or bibliographies, and portfolio analysis as good methods for outcomes assessment.

- Hinchliffe, Joseph. 2001. Faculty-directed library use instruction: A single class, retrospective study. *Research Strategies*, 17, 281-289.  
Looking at affect of prescriptive, faculty-directed library research instruction on student term paper quality. Examination of student research logs. Trying to factor out influences of student writing skill in analysis of term paper.
- Holman, Lucy. 2000. A comparison of computer-assisted instruction and classroom bibliographic instruction. *Reference & User Services Quarterly*, 40 (1), 53-60.  
Comparing effectiveness of online library tutorial and more traditional classroom instruction in promoting student learning for first-year students in English composition. Pre- and post-testing, as well as measurement of attitudinal factors.
- Johnson, Anna Marie & Phil Sager. 2000. Too many students, too little time: Creating and implementing a self-paced, interactive computer tutorial for the libraries' online catalog. *Research Strategies*, 16 (4), 271-284.  
Evaluation of a library's online tutorial using student questionnaires comprised of 5 open-ended questions. Questionnaire items included in the text.
- Johnson, Kristin & Kathleen Carlisle Fountain. 2002. Laying a foundation for comparing departmental structures between reference and instructional services: Analysis of a nationwide survey. *College & Research Libraries*, 63 (2), 275-287.  
Survey of institutions to find out how they structured instruction programs—as part of reference department or separately. Focusing only on institutions of a certain size. Target population of 107; 71% response rate. Email survey.
- Julien, Heidi. 2000. Information literacy instruction in Canadian academic libraries: Longitudinal trends and international comparisons. *College & Research Libraries*, 61 (6), 510-523.  
National survey of libraries in Canada to track trends in teaching objectives, methods, and content. Comparison of data to that from a 1995 study and similar studies in U.S. and New Zealand.
- Julien, Heidi and Stuart Boon. 2002. From the front line: Information literacy instruction in Canadian academic libraries. *Reference Services Review*, 30 (2), 143-149.  
3 year study to identify instructional outcomes and characterize successful instruction from the perspective of the institutions providing the instruction and the students receiving the instruction. Included interviews (34 total) with instructional librarians and senior library administrators at 3 Canadian institutions.
- Kaplowitz, Joan & Janice Contini. 1998. Computer-assisted instruction: Is it an option for bibliographic instruction in large undergraduate survey classes? *College & Research Libraries*, 59, 19-27.  
Experiment comparing effectiveness of two presentation media for LI, lecture and computer-assisted instruction. Effectiveness measured by pre- and post-testing of student attitudes, as well as a follow-up study seeking qualitative, affective data. Table 1 reproduces the 18-question survey instrument.
- Kelsey, Paul & Tom Diamond. 2003. Establishing a core list of journals for forestry: A citation analysis from faculty at southern universities. *College & Research Libraries*, 64 (5), 357-377.

Looking at citations of articles published by faculty over a 12 year period. Comparing core list from these findings with published ones for the field.

Kinkel, Lilith R., Susan M. Weaver, and Kim N. Cook. 1996. What do they know?: An assessment of undergraduate library skills. *Journal of Academic Librarianship*, 22, 430-434.

Study to determine whether cooperative (or small group) methods are more effective than traditional methods for LI for 1<sup>st</sup> year English. Use of pre-test to assess basic library skills. 15-item questionnaire: 1-8 looked at proficiencies in specific library skills, 9-12 looked at comfort level, and 13-15 gathered demographic information. Administered survey to 245 students in the 2<sup>nd</sup> course of the 1<sup>st</sup> year English sequence.

Kuh, George D. & Robert M. Gonyea. 2003. The role of the academic library in promoting student engagement in learning. *College & Research Libraries*, 64 (4), 256-282.

Examination of the nature and value of undergraduate students' experiences with the academic library by looking at data from 300,000 students on the College Student Experiences Questionnaire between 1984 and 2000. [See also Kuh & Gonyea. 2003. The role of the academic library in promoting student engagement in learning. In Thompson, 2003, 9-31]

Lombardo, Shawn V. & Cynthia E. Miree. 2003. Caught in the web: The impact of library instruction on business students' perceptions and use of print and online resources. *College & Research Libraries*, 64, (1), 6-22.

Sample draw from 3 sections of a required business class. Student participation voluntary, and students who chose to participate were given extra credit. Questionnaire on knowledge of, attitudes about, and experiences using print library sources, electronic library sources, and web resources. Sample of 90 students.

Lorenzen, Michael. 2001. The land of confusion? High school students and their use of the World Wide Web for research. *Research Strategies*, 18, 151-163.

Interviewing 25 high school students to study their use of the Web in completing assignments. Clarifying questions used.

Lu, Cathy Anne. 2001. Services for new American users: Indochinese students' behavior in using academic libraries. In Thompson 2001, 328-332.

Target population of Indochinese students at San Jose State and the University of California, Berkeley. Email and in-person surveys using same questions. Surveys yielded 50 responses; a 14% response rate. Also interviewing 248 students, 97% of the 256 students approached.

Lubans, John. 1999. *Students & the Internet*. <http://www.lib.duke.edu/staff/prgnztn/lubans/docs/study3.html>.

Same survey of student Internet use repeated at least 3 times, in different years.

\_\_\_\_\_. 1998. *How first-year university students use and regard Internet resources*. <http://www.lib.duke.edu/staff/orgnztn/lubans/firstyear.html>.

\_\_\_\_\_. 1974. Library-use instruction needs from the library users'/nonusers' point of view: A survey report. In *Educating the library user*, 401-409. New York: Bowker.

Survey distributed in student union. 370 surveys returned, 139 by non-users. Survey options included agree, disagree, neutral, and don't know in relation to series of statements, such as "When I walk into a library I feel ...". Finding that users appear to have a more positive attitude toward the library than do non-users. Instrument published in chapter.

Mark, Amy E. & Polly D. Boruff-Jones. Information literacy and student engagement: What the National Survey of Student Engagement reveals about your campus. *College & Research Libraries*, 64 (6), 480-493.

Correlates five survey questions from the NSSE with the ACRL Information Literacy Standards and Bloom's taxonomy as a way to measure how an institution's curriculum incorporates information literacy experiences.

Maughan, Patricia Davitt. 2001. Assessing information literacy among undergraduates: A discussion of the literature and the University of California-Berkeley assessment experience. *College & Research Libraries*, 62 (1), 71- 85.

Research based on use of the Information Literacy Survey with graduating seniors in 1994, 1995, and 1999. Survey asks students to rate their library knowledge on a four-point scale, as well as answer questions designed to test their skill levels. Self-reports compared to actual skill levels.

Michel, Stephanie. 2001. What do they really think? Assessing student and faculty perspectives of a web-based tutorial to library research. *College & Research Libraries*, 62 (4), 317-332.

Use of student and faculty questionnaires to measure perceptions of a web-based tutorial. Questionnaires based on examples from Shonrock, 1996, *Evaluating library instruction: Sample questions, forms, and strategies for practical use*. 141 student surveys and 4 faculty surveys returned.

Mittermeyer, Diane & Diane Quirion. 2003. *Information literacy: Study of incoming first-year undergraduates in Quebec*. [http://www.crepuq.qc.ca/documents/bibli/formation/studies\\_Ang.pdf](http://www.crepuq.qc.ca/documents/bibli/formation/studies_Ang.pdf).

Instrument included 20 questions in 5 thematic areas based on ACRL standards. Target population 40,000 students at 15 French- and English-language institutions of higher education in Quebec. 5,281 questionnaires sent out, response rate of 56.9%.

Moore, Deb. et. al. 2003. GCC research project on information competence: Status report April 2003. <http://www.glendale.edu/library/libins/statusic.html>.

Seeking to evaluate impact of a credit course of student learning outcomes. Matching students who took elective class with a randomly selected control group similar in enrollment status, prior GPA, primary language, and units attempted. Looking at completion rate, GPA, units completed. Also looking at rate of plagiarism after library instruction in course-related sessions, as well as correlations between participation in library workshops and student performance on course outcomes.

Naismith, Rachael & Joan Stein. 1989. Library jargon: Student comprehension of technical language used by librarians. *College & Research Libraries*, 50 (8), 543-552.

Study of student comprehension of library jargon. Terms viewed as jargon taken from actual reference interviews and library handouts. Multiple choice test given to first-year students, with "thinking-aloud" or protocol analyses also run to collect information about the students' reasoning processes. Using graduate students in English/technical writing to identify jargon by looking at first 2 pages of a number of handouts. Each handout given to 2 students. Also taped reference interviews of 4 librarians to identify terms. Using ALAL Glossary of Library and Information Science for definitions of terms. Incorrect definitions based on answers supplied by a small sample of first-years given terms and asked to define them. Subjects = 100 first-year English students. 4 students did think alouds.

Nichols, James, Barbara Shaffer, & Karen Shockey. 2003. Changing the face of instruction: Is online or in-class more effective? *College & Research Libraries*, 64 (5), 378-388.

Pre- and post-testing to compare the effectiveness of student learning from an online tutorial and traditional instruction. Subjects were students in a first-year English class. Also surveying attitudes. N=64.

- Oling, Lori & Michelle Mach. 2002. Tour trends in academic ARL libraries. *College & Research Libraries*, 63 (1), 13-23.  
Survey in 2000 to gather data about tour administration, audience, and structure, as well as librarians' views on tours. Comparison of data to that from 3 LOEX surveys in 1979, 1987, and 1995 [these surveys used the same instrument]. Looked at libraries' web sites and sent email to 100 librarians; 61% response rate.
- Onwuegbuzie, Anthony J. & Qun G. Jiao. 2000. I'll go to the library later: The relationship between procrastination and library anxiety. *College & Research Libraries*, 61 (1), 45-54.  
Investigation of relationship between academic procrastination and library anxiety at the graduate level. Subjects = 135 students enrolled in 3 sections of a required introductory-level educational research courses. Instruments = the Library Anxiety Scale (developed by Sharon Bostick) and the Procrastination Assessment Scale—Students (developed by Solomon and Rothblum).
- Pask, Judith M. & E. Stewart Saunders. 2004. Differentiating information skills and computer skills: A factor analytic approach. *Portal: Libraries and the Academy*, 4 (1), 61-73.  
Survey of incoming first-year students at Purdue in 1999 and 2000 to measure computer and information skills. Factor analysis used to determine whether or not computer and information skills are separate entities. 23-question instrument reproduced as an appendix to the article.
- Perkins, Gay Helen & Haiwang Yuan. 2001. A comparison of web-based and paper-and-pencil library satisfaction survey results. *College & Research Libraries*, 62 (4), 369-377.  
Experiment to determine comparability of paper-and-pencil and Web-based survey instruments measuring patrons' satisfaction with libraries' resources and services. 458 out of 4,554 Web page users completed the survey, for a 10% response rate. Every 10<sup>th</sup> user leaving the library offered the paper-and-pencil survey. 366 responses were obtained from 4,831 possible respondents, for a 7.58% response rate. Web survey reproduced in Figure 1. Finding of small, but significant, differences in means for populations with similar demographics using different survey media.
- Prime, Camille, Elisa Bassecouard, & Michel Zitt. 2002. Co-citations and co-sitations: A cautionary view on an analogy. *Scientometrics*, 54 (2), 291-308.  
Bibliometric study, treating links on the Web as equivalent to citations in texts.
- Pullen, Robert, Victor Ortloff, Sandra Casey, & Jonathon B. Payne. 2000. Analysis of academic misconduct using unobtrusive research: A study of discarded cheat sheets. *College Student Journal*, 34 (4), 616-625.  
Examination of discarded student cheat sheets. Coding to track discipline, type of information on the sheet, how sheet formatted and constructed, how sheet concealed and used, and where sheet disposed of.
- Rambler, Linda K. 1982. Syllabus study: Key to a responsive academic library. *Journal of Academic Librarianship*, 8 (3), 155-159.  
Syllabus study. Also got first-day instructions for students from class instructors. Trying to measure how many courses have library use built-in, and which disciplines and levels.
- Ray, Kathryn & Joan Day. 1998. Student attitudes towards electronic information resources. *Information Research* 4 (2) <http://informationr.net/ir/4-2/paper54.html> 10/9/03.  
Study looking at level of use of electronic resources, how students feel about various issues surrounding use of electronic resources, and whether attitudes were dependant on the subject students studied. 317 students completed questionnaires.

Ryan, Terry, Richard J.G. Field & Lorne Olfman. 2003. The evolution of US state government home pages from 1997 to 2002. *International Journal of Human-Computer Studies*, 59 (4), 397-522.

Tracking changes in home pages of state governments over time using the Internet Archive. Got images of pages, then had 180 participants sort pages into groups; then created dissimilarity and individual agreement matrixes for groupings. Subjects paid and came in response to ads.

Scholz-Crane, Ann. 1998. Evaluating the future: A preliminary study of the process of how undergraduate students evaluate web sources. *Reference Services Review*, 26 (3-4), 53-60.

Subjects were 49 students from a composition course enrolling 1<sup>st</sup> and 2<sup>nd</sup> year students. Teaching assistants for 3 sections volunteered their students to participate. Students divided into 2 groups. Both groups given same sample research topic and 25 minutes to review each site, also told could go anywhere on the internet for more information. Group 1 asked to evaluate in terms of criteria in the form of specific questions they had to answer from an evaluation checklist. Group 2 asked to discuss in essays how they would evaluate the quality of each site, including specific criteria used to assess quality. Wanted to compare evaluation methods used by students to “approved standards” derived by looking at 7 typical lists of criteria and seeking commonalities between them. 4 librarians evaluated each site using same criteria as students in group 1.

Seamans, Nancy H. 2002. Student perceptions of information literacy: Insights for librarians. *Reference Services Review*, 30 (2), 112-123.

Interviews with first-year students to better understand the kinds of information they needed and how they acquired it. Email also used in questioning students. Questions based on the *Information Literacy Competency Standards for Higher Education*. Initial sample was 14 students and 1 faculty member, but 5 students dropped out over time, leaving 9 students and 1 faculty member. “Study was a hybrid that included components normally found in qualitative, descriptive, and case study research. The study also included a quantitative component in that an open-ended survey was used as an entry point for data collection.” Also using peer debriefing and logs of interactions with subjects.

Seiden, Peggy, Kris Szymborski, & Barbara Norelli. 1997. *Undergraduate students in the digital library: Information seeking behavior in an heterogeneous environment*. <http://www.ala.org/acrl/paperhtml/c26.html>

Study of 60 students to assess students’ information seeking behavior in general, get information about the search process, and to discern how students acquired their knowledge of online searching. Used both individual and group interviews. Approaching students in the reference area over 2 semesters and asking them if they would be interviewed. Interviews took 20-30 minutes. Also questionnaire and group interviews

Shirato, Linda & Joseph Badics. 1997. Library instruction in the 1990s: A comparison with trends in two earlier LOEX surveys. *Research Strategies*, 15 (4), 223-237.

LOEX’s survey of LI practices. Earlier surveys in 1980 and 1989, compared to data from 1995. Surveying all institutions in the LOEX database.

Smith, Kerry J. 2002. Professor attendance as a factor in perceived library instruction effectiveness: An exploratory study. *Reference Services Review*, 30 (1), 43-48.

Survey of instruction librarians regarding the impact of professor attendance on the effectiveness of library instruction. Brief survey emailed to all subscribers of BI-L and LIBREF-L.

Sonntag, Gabriela. 2001. Report on the National Information Literacy survey. *College & Research Libraries News*, 62 (10), 996-1001.

Survey developed by ACRL and emailed to VPs of academic units at approximately 2700 institutions in May 2001 to gauge trends in IL. 62% response rate.

Staines, Gail M. 1996. Moving beyond institutional boundaries: Perceptions toward BI for transfer students. *Research Strategies*, 14 (2), 93-107.

2-phrase study involving a survey and interviews to understand better the different perceptions of community college and four-year institution library staff toward LI for transfer students.

Still, Julie. 1998. The role and image of the library and librarians in discipline-specific pedagogical journals. *Journal of Academic Librarianship*, 24 (3), 225+.

Examining the presentation of library research, library assignments, libraries, and librarians in articles authored by faculty and published in discipline-specific pedagogical journals. Study involved a search of 29 specific journals in the ERIC database as well as page-by-page review of 13 journals.

Tancheva, Kornelia. 2003. Online tutorials for library instruction: An ongoing project under constant revision. In Thompson 2003, 267-281.

Examination of 47 library online tutorials in light of recommendations for best practices. Recommendations derived from various sources.

Thelwall, Mike. 2002. The top 100 linked-to pages on UK university web sites: High inlink counts are not usually associated with quality scholarly content. *Journal of Information Science*, 28 (6), 483-491.

Looking at link counts to pages.

Thompson, Hugh A., ed. 2003. *Learning to make a difference : Proceedings of the Eleventh National Conference of the Association of College and Research Libraries, April 10-13, 2003, Charlotte, North Carolina*. Chicago: American Library Association.

\_\_\_\_\_. 2001. *Crossing the Divide: Proceedings of the Tenth National Conference of the Association of College and Research Libraries, March 15-18, 2001, Denver, Colorado*. Chicago: American Library Association.

\_\_\_\_\_. 1999. *Racing toward tomorrow: proceedings of the Ninth National Conference of the Association of College and Research Libraries, April 8-11, 1999, Detroit, Michigan*. Chicago: American Library Association.

Tolppanen, Bradley P. 1999. A survey of World Wide Web use by freshman English students: Results and implications for bibliographic instruction. *Internet Reference Services Quarterly*, 4 (4), 43-53.

Survey of first-year English students about their use of the Web. Survey tested on a group of 12 students. All students taking English 102 completed survey in Spring 1999. Reprinting questions in article.

Valentine, Barbara. Students versus the research paper: What can we learn? In Thompson 1999, 380-389.

Interviewing 28 undergraduates either in focus groups or individually about how they accomplished the task of completing a substantial research paper during the course of a class in 1993. Study repeated with 31 students in 1998.

Van Scoyoc, Anna M. 2003. Reducing Library Anxiety in First-Year Students: The Impact of Computer-Assisted Instruction and Bibliographic Instruction. *Reference & User Services Quarterly*, 42 (4), 329-341.

Attitudinal survey administered pre- and post-instruction to first-year students as part of measuring degree to which computer-based instruction and traditional library instruction reduced library anxiety among first-year students. Used control group. Instrument used was Bostick's Library Anxiety Scale (based on Mellon's qualitative study).

Vandergrift, Kay E. 1987. Critical thinking misfired: Implications of student responses to The Shooting Gallery. *School Library Media Quarterly*, 15, 86-91.

Analysis of student responses to short film, The Shooting Gallery. Tracking comments in writing and discussions. 20 students total. Examining set of phrases or terms used by viewers to describe the work and make meaning from it and then making frequency counts (17 of 20, etc.). Comparing findings to parallel experiment among graduate classes at Columbia University's School of Library Service involving 63 respondents.

Varner, Carroll H., Vanette M. Schwartz, & Jessica George. 1996. Library instruction and technology in a general education 'gateway' course: The student's view. *Journal of Academic Librarianship*, 22, 355-359.

Use of four "user panels" consisting of 4-8 students that met twice during a semester to describe their experience with a first year seminar, library use, library instruction, email instruction and use. All students volunteers. Also use of brief survey. Subjects given cash incentives. Interviews taped and transcribed.

Veldof, Jerilyn & Karen Beavers. 2002. Going mental: Tackling mental models for the online library tutorial. *Research Strategies*, 18, 3-20.

Use of usability testing and interviews to determine the mental models that undergraduate students bring to online library tutorials. Librarians' mental models derived from the literature and compared to students'.

Vidmar, Dale J. 1998. Affective change: Integrating pre-sessions in the students' classroom prior to library instruction. *Reference Services Review*, 26 (3-4), 75-95.

Experiment to determine if a pre-session prior to a regularly scheduled library instruction session would have any effect upon student attitudes toward the library, the libraries, the relevance of using the library, and the effectiveness of library instruction. Strong example of operationalizing research terms (pp. 82-83). Use of pre- and post-test to measure student attitudes, feelings, and beliefs. Sample = students in 6 first-year composition classes. 3 classes = experimental group and 3 classes = control group.

Von Seggern, Marilyn & Nancy J. Young. 2003. The focus group method in libraries: Issues relating to process and data analysis. *Reference Services Review*, 31 (3), 272-284.

Use of focus groups to investigate how people experience the library and how they find and use information. Focus group participants given incentives in the form of food.

Whitmire, Ethelene. 2001. The relationship between undergraduates' background characteristics and college experiences and their academic library use. *College & Research Libraries*, 62 (6), 528-540.

Doing secondary analysis of data obtained from the National Survey of Student Learning. Selecting 1046 of 3840 responses. Looking at answers to questions in terms of race, age, etc.

\_\_\_\_\_. 1998. Development of critical thinking skills: An analysis of academic library experiences and other measures. *College & Research Libraries*, 59 (3), 266-273.

Examining data from the College Student Experiences Questionnaire, a cross-sectional survey completed by students during 1992-1993. Data set = 18,157 students. Relationship between library use and library activities and (students' self-report of the) development of critical thinking skills.

Wilson, Rebecca A. Revelry, revelation, or research: What are college students really doing on the Internet. In Thompson 1999, 364-369.

75 students as subjects. Using small, scheduled, focus-group sessions in which students who used internet were asked a series of 11 questions about internet use and non-users were asked 4 questions about non-use. Seeking reasons for use, time spent in use. Includes questions asked of students.

Yang, Zheng Ye. 2000. University faculty's perception of a library liaison program: A case study. *Journal of Academic Librarianship*, 26 (2), 124-128.

Study of how university faculty perceive a library liaison program. Survey of 64 library representatives for each academic department/program.

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