

Assessment of Student Learning from Reference Service

Gillian S. Gremmels and Karen Shostrom Lehmann

For at least 20 years, librarians have been evaluating the quality of reference service, and higher education has been grappling with assessment. This two-year study sought to bring together these two strands: (1) to compare the student's self-report of what was learned in a reference encounter with the librarian's statement of what was taught; and (2) to test whether students perceived a link to information literacy content that had been taught in class. The study found that students did understand reference as an instructional activity and that they made the desired links about two-thirds of the time, especially when the librarian was teaching the use of tools.



With a prevailing climate that emphasizes assessment, and because of broad dissemination of information literacy standards for higher education, many academic librarians have gained reinforcement for their belief that reference is an instructional activity. If the primary goal of academic reference is to teach students to find information instead of simply giving them answers, new types of evaluation are needed to study the effectiveness of this effort. Although evaluation of reference service has been occurring for at least 20 years, studies to this point do not appear to completely capture the reality of reference as it is practiced by librarians who endorse an instructional approach at their colleges and universities. The authors' two-year study sought to bring together the strands of reference evaluation and assessment of student learning by comparing the student's self-report of what was learned with the librarian's

statement of what was taught. Further, it tested whether students perceived a link during reference interactions to information literacy content taught by librarians during classroom instruction.

Review of the Literature

A fairly comprehensive framework categorizing reference evaluation literature through the twentieth century was compiled in an article by Denise Green and Janis Peach of the University of Illinois-Springfield. They were "experimenting with evaluating reference service as a teaching and learning activity" and identified three distinct reference evaluation categories: (1) studies using unobtrusive methods to focus on the accuracy of librarians' answers; (2) studies investigating the communication between patrons and librarians; and (3) studies seeking to understand patrons' satisfaction and the factors that lead to satisfaction or dissatisfaction.¹

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The research of Peter Hernon and Charles McClure is one of the best-known examples in the first, “unobtrusive methods” category. They used a model, developed by Herbert Goldhor, in which “unobtrusive” recruits posed as questioners to reference staff who were unaware that they were being evaluated. Focus was on the accuracy of librarians’ answers to straightforward and factual questions with predetermined answers. Others have replicated Hernon and McClure’s study, and the group has come to be known as the “55 percent school” because results have shown consistently that “staff generally answer 50–60 percent of the questions correctly.”² The method is still under the scrutiny of disbelieving librarians for its worrisome statistical findings about librarians’ performance, but critics note that reference is more than simply right and wrong answers and point out the importance of communication and styles of delivery in reference assistance.

A counterbalance to the first approach, which ignored the interpersonal dimension of reference, led to the second category of studies on communication, like those of Joan Durrance and Carolyn Jardine. By investigating the interpersonal communication between reference librarian and client, Durrance assessed the “influence of the environment on the success of the reference interview,”³ and Jardine’s survey studied reference success “based solely on users’ satisfaction with librarians’ behaviors.”⁴ While this more complex model assessed the willingness of a patron to return to a specific reference librarian for additional help and focused on process over answers, it ignored an obvious point: wrong answers are still wrong, even from a likeable librarian.

The Wisconsin-Ohio Reference Evaluation Program (WOREP), developed by Charles Bunge and Marjorie Murfin in 1983, addressed the third evaluation category: satisfaction.⁵ An assessment tool that measures both user satisfaction and the conditions of the reference transaction, WOREP used the natural

reference setting, suggested cause and effect relationships, and provided for comparability of data.⁶ Such an approach not only offered reliability in an externally validated assessment instrument tested by many academic and public libraries but evaluated user satisfaction or dissatisfaction based on variables of “input” and “process” and collected data from both patrons and library staff. The instrument reinforced the concept that reference service is a complex activity and led to understanding of patron satisfaction/dissatisfaction as well as the factors that contributed to a positive or negative reference experience.

In 2002, John V. Richardson challenged the 55 percent school as an overly simplistic model, “not truly representative of real-world reference questions.”⁷ His study used a representative field sample to raise the accuracy level to 90 percent when librarians recommended a source or strategy in response to a question. Richardson’s reference study bridges the categories here described, as it combines percentages, user satisfaction, and conditions of a transaction as measured by librarian behavior according to reference skills outlined in the Reference and User Services Association (RUSA) guidelines.⁸

Reference evaluation has an extensive history in the literature. What it is only beginning to develop, however, is a way to assess the teaching activity of librarians giving reference assistance.⁹ This is an outgrowth of changing perceptions that reference assistance is not just correct answers or effective communication but is a teaching and learning activity. James Elmborg, Patricia Iannuzzi, Jill Gremmels and Claudia Ruediger, and Cecilia López are some of the recent voices encouraging the move toward a distinct “pedagogy at the reference desk”¹⁰ where “...we place student learning at the center of our definition of success...”¹¹ and approach reference transactions as academic conferences where teaching and learning occur.¹²

None of the three reference study categories previously described, with

their emphasis on measuring correctness and performance, captures the reality of college reference assistance as practiced by academic libraries with strong information literacy missions. The role of the librarian has not been evaluated in a way that helps make judgments about effective teaching, nor have the assessments themselves connected to learning outcomes. Without a focus on student learning, reference librarians are assessing in a vacuum and are not becoming part of what higher education assessment expert Peter Ewell calls a "culture of use."¹³ Librarians have long had a history of summative assessment, intended for accountability, but are now realizing the opportunity to move toward formative assessment intended to improve practice. Higher learning accreditation bodies are also spurring such changes in assessment approaches.

In their actual study, after using WOREP twice in 1995 and 1997 to evaluate the reference department and personnel, Green and Peach designed an assessment instrument that was given only to library patrons who had fairly complex reference questions. The survey was based on WOREP, findings from the literature survey described in their article, and input from a campus Personnel Policies Committee, and it "attempted to measure patrons' attitudes about learning from reference interaction."¹⁴ Green and Peach's focus was on assessment of reference instruction as a teaching and learning activity, and their results measured satisfaction with the reference teaching process, the librarian's communication skills and knowledge, and the "comfort level" of patrons. They felt their results "show a promising method of evaluating individual teaching at the reference desk" and that more such studies and research are needed to "assess and document the teaching of research skills as a component of reference."¹⁵

JoAnn Jacoby and Nancy O'Brien found that "friendliness of the reference staff was one of the best predictors of students' confidence in their ability to

find information on their own"¹⁶ in their 2005 study about the teaching dimension of reference. They too reviewed the literature examining reference transactions but focused their study on user perceptions of reference staff approachability, awareness of library resources, and confidence in using resources independently. They felt that, by using reference services to build skills for "independent information discovery,"¹⁷ reference interaction in academic settings could teach resources as well as finding, evaluating, and using information.¹⁸

Research Question

Most libraries have not yet shifted their focus to assessment of student learning. They are not asking the "big question," which, according to Iannuzzi, is, "What will happen if we place student learning at the center of our definition of success?"¹⁹ Although there have been assessment efforts in information literacy classrooms, Green and Peach were among the first to approach assessment by trying to offer proof of the teaching activity of librarians, zeroing in on *whether* students learned through individual teaching at the reference desk. Jacoby and O'Brien further demonstrated that reference services can play a role in helping students become independent information seekers.

The follow-up question that prompted the study described in this article takes assessment one step further. The focus is *what* the student learned. Was it what the librarian intended to teach? Did reference reinforce classroom instruction? The study design allowed the authors to bring together the strands of reference evaluation and assessment of student learning. It posed questions to both the participating student and reference librarian about recognition of concepts based upon information literacy outcomes as published in the national *Information Literacy Competency Standards for Higher Education*²⁰ and probed whether those concepts had also been taught in a classroom environment.

Setting

Wartburg College is a private, residential, coeducational college of 1,800 students, classified by the Carnegie Commission as a Baccalaureate-Arts & Sciences institution. It is located in a small town in northeast Iowa. One of ten academic libraries of all types and sizes invited to the Best Practices in Information Literacy conference in 2002, Wartburg has a strong course-integrated Information Literacy Across the Curriculum (ILAC) program. Information literacy is a formal part of the college's general education curriculum, with five core lessons in courses required of first- and second-year students as well as mandated strands in majors.

The Wartburg librarians view reference as an individualized component of their comprehensive information literacy program. This philosophy is reflected in the reference mission statement:

Vogel Library's mission is to educate information-literate lifelong learners. We strive to make each reference encounter an educational experience that reinforces information literacy concepts by building upon prior instruction and giving further opportunities for guided practice.²¹

Goals to reinforce this mission were crafted with the intent of fostering an environment of individual assistance that enables clients to become skilled in identifying information needs, in finding, evaluating, and using information effectively, in promoting intellectual and academic freedom, while yet upholding the principles of privacy and confidentiality. In fact, one goal explicitly states that the librarians plan to reinforce classroom learning in the context of answering individual questions and providing one-on-one guidance to students, faculty, and staff in the Wartburg community.

This, then, is the context in which the study was conducted: a small college of fairly homogeneous students with librarians who understand reference to be an

instructional activity that forms a part of a strong information literacy program. As such, it makes an excellent test bed for the assessment of student learning from reference service.

Method

The survey instrument was a two-part form on one 8.5" x 11" piece of paper perforated to separate between client and librarian responses. The two sections of the page were numbered to facilitate later rematching. Beginning in late January 2003, and continuing throughout the academic term, each student who had asked what the reference librarian deemed an instructional question was invited to complete a short survey (see Appendix A). If the student agreed, the librarian tore off and kept the lower portion of the page and gave the student the top portion. The form posed one short-answer and four yes/no questions to students:

1. Did the librarian who helped you just now teach you anything while answering your question? (If the student answered "no," the survey ended.)
2. If you answered yes to question 1, please describe below what the librarian taught you:
3. Did a librarian meet with your class and teach *your class* how to find information for this assignment?
4. Did what the librarian taught you just now (as reflected in your answer to question 2) relate to or build on anything a librarian taught *your class* about finding information for this assignment?
5. Did what the librarian taught you just now (as reflected in your answer to question 2) relate to or build on anything a librarian taught in a *previous* lesson in another class?

Because any student with an instructional question was asked to take the survey, multiple responses from the same student, although representing different reference encounters, were possible and did occur. The librarian, meanwhile, answered two questions with one additional optional question:

1. What did you intend to teach this student during reference help?
2. Do you think the student understood your intention during this instruction?
3. Comments?

Following question 1 were six categories of instruction, drawn from information literacy concepts that form the basics of the college's ILAC curriculum plan: (a) choosing good search terms; (b) database selection; (c) search strategy; (d) evaluating information; (e) use of a specific tool; and (f) other. Both students and librarians deposited completed questionnaires in a drop box at the reference counter. Four reference librarians, three of whom regularly teach in the information literacy program, participated in administering and answering the survey.

Every few days the authors rematched the questionnaires in the box, stapled the forms together, and moved them to a secure location. At the end of the data collection period, they eliminated any forms that did not have a mate (because the student form was not returned) and entered the data into a spreadsheet. They also created a narrative document with the descriptions of what the librarian had taught as detailed in the answers to question 2. The two authors then independently compared the librarians' and students' descriptions of the teaching and learning and sorted the pile into three categories: Related, Inconclusive, and Not Related.

To qualify as Related, both responses had to contain the name of the same database or describe a concept with the same words or describe a portion of a tool that would easily match. (For example, the student might say "find newspapers online" and the librarian "use *LexisNexis*." Since *LexisNexis* is the main tool used for newspapers full-text, the authors considered that a match.) Inconclusives featured vague student responses like "better research" or "sources I didn't know about." Not Related answers gave two totally different categories. Other possibilities were student responses in which a database

was called a search engine or librarian responses of "taught a search strategy" when the student named a tool. This suggests that the librarian was teaching a concept but the student was concentrating on the tool that the librarian was using to illustrate the concept. Even though the authors sorted the data independently, they agreed on most. Initial disagreements were discussed, and the authors came to agreement. In all cases, the authors made conservative choices about what counted, preferring not to extrapolate and guarding against the temptation to ascribe meanings to student responses that were hinted at but not explicitly stated.

Following consultation with the college assessment director in the summer of 2003 and feedback from an assessment conference presentation, the authors decided to conduct the study a second time with a slightly revised instrument (see Appendix B). This administration began in October and ran through the 2003–2004 academic year. Revisions included the addition of demographic questions to the student form: the course number the question related to, the name of the instructor, and the student's sex and year at Wartburg. If the student answered "no" to question 1 ("Did the librarian who just helped you teach you anything while answering your question?"), he or she was asked to continue with question 3 rather than end the survey. After asking the student to describe the instruction (question 2), the form also requested that the student choose a category that "best fit[s] your answer." The categories were the same six that the librarians used in their answers. The authors also decided that students would not be asked to answer the survey more than once. The only change in the librarian form was allowing multiple answers on categories taught if the librarian ranked them in order of importance. The same four librarians participated in the administration of this second survey.

Surveys were rematched and handled as in the first administration, and the data analysis procedure was similar.

Data was entered into a spreadsheet, and both student and librarian descriptions of learning were transcribed into Qualrus, a program facilitating qualitative research. Since students had been asked to assign the same categories as the librarians used, identifying category matches was relatively easy. The authors again analyzed the descriptions of learning and labeled them “Strong Match,” “Acceptable Match,” or “No Match.” Examples of strong matches were:

Student: how to use the catalog
 Librarian: iPac (the name of the library’s catalog) to find music CDs

Student: how to cite *CQ Researcher*
 Librarian: citation with CQ

Student: how to find literary criticism
 Librarian: *Literature Resource Center* and *Contemporary Literary Criticism*

Examples of nonmatches included vague responses like “Showed me different places I could look for the information I was seeking” and answers in which a student mislabeled a tool or seemed to be talking about something completely different, as in the following:

Student: He told me some important information about companies on Web sites recommended by the college.
 Librarian: *LexisNexis Business* and *Business Source Elite*

Again, inter-rater reliability was high, and the authors discussed and resolved differences, choosing conservatively.

Findings

In both administrations of the survey, response rates were high: 85 percent of student forms were returned in spring 2003 (143 of 169) and 78 percent in academic year 2003–2004 (121 of 156).

Demographic questions were asked only in the second administration of the

survey, and results were unremarkable except for noting the large number of respondents who chose not to answer the questions. Forty-six respondents (35%) were male, 50 (39%) were female, and 34 (26%) did not answer. The class breakdown was as follows:

TABLE 1
2003-2004 Survey Demographics

1Y:	35	23%
2Y:	25	16%
3Y:	23	15%
4Y:	36	24%
No Answer:	33	22%

Most of the students answered “yes” to question 1, indicating that they thought the librarian had taught them something. In the January–May 2003 survey, 133 (94%) chose “yes” and that number rose to 98 percent (118 responses) in the 2003–2004 administration. One-third of the respondents said that they had participated in an information literacy session for the assignment to which their reference question related (question 3). Approximately two-thirds of the respondents reported that a librarian had not met with their class:

TABLE 2
Had Information Literacy Session

	1st Survey	2nd Survey
Yes:	47 (33%)	41 (34%)
No:	87 (62%)	79 (65%)
No Answer:	7 (5%)	1 (1%)

Of the one-third who did receive information literacy instruction, most perceived the connection between what the reference librarian taught them and their in-class instruction. In the first survey administration, 42 (89%) of the students who answered yes to question 3 also answered yes to question 4, while five (11%) answered no. Thirty-eight students (95%) in the second administration answered yes to question 4 (with two, or 5%, saying no) after they had replied affirmatively to question 3 (figure 1).

TABLE 3
Reference Instruction Related to
Previous Class

	1st Survey	2nd Survey
Yes:	102 (77%)	29 (74%)
No:	27 (20%)	8 (21%)
No Answer:	4 (3%)	2 (5%)

Approximately three-quarters of the students perceived a relationship between the reference librarian's instruction and information literacy instruction in a previous class (question 5) (table 3).

The small N in the second administration of the survey was caused by a revision in the survey construction. Students who answered no to question 3 (information literacy session in class) were told not to complete the rest of the survey.

The answer to the main research question—did the student learn what the reference librarian intended to teach—is “sometimes.” In the January–May 2003 survey, 80 (60%) of the student descriptions of learning were deemed matches to the librarian descriptions of teaching, while 26 (20%) were not related and 27 (20%) were inconclusive. Criteria for deciding if responses matched were detailed above. The large percentage of not related and inconclusive responses was probably due to several factors: (1) conservative coding criteria; (2) weakness inherent in a blind survey with open-ended questions (the researchers cannot probe further when a respondent appears not to understand a question); (3) students' difficulties in describing tacit knowledge. Cynthia Bane, Associate Professor of Psychology at Wartburg College, noted, “It's far easier for students to speak in terms

of concrete content (tools) than more general, abstract skills. That there was highest agreement for the tools category is evidence to support this. It's likely that students learned skills, but they were unable to articulate what it was that they learned.”²²

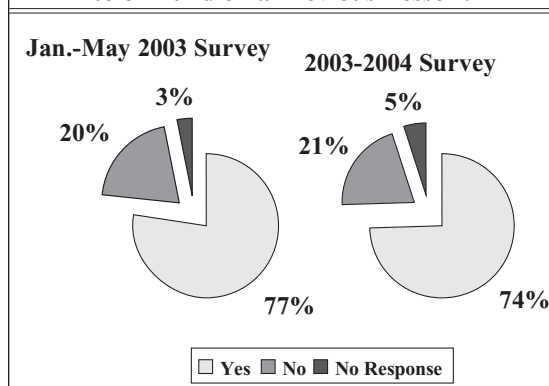
The 2003–2004 survey results are shown in figure 2:

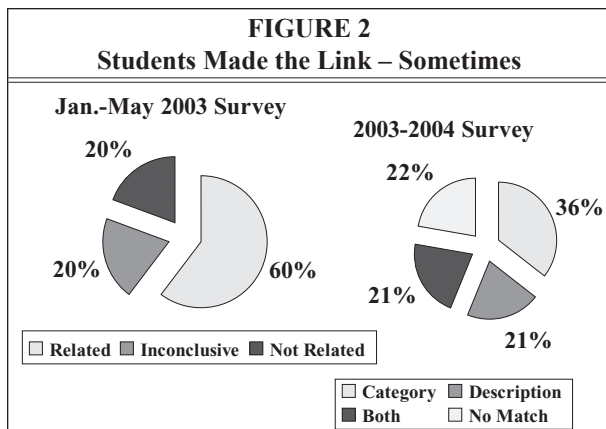
“Tools” was the category most likely to be matched. Figure 3 shows the librarian-selected category for all descriptions deemed “related” in the first survey and “matches” in the second survey. With the addition of categories to the survey instrument, there were no inconclusive matches. Responses to open-ended questions were judged Strong Match, Acceptable Match, or No Match. This suggests that the first survey's reliance exclusively on open-ended questions was responsible for the inconclusive matches.

Discussion and Implications of the Study

Most students understood the reference encounter as instructional; nearly all students reported that the librarian had taught them something. Only one-third of the students reported having had information literacy instruction for the assignment they were working on, which is interesting because the library has a

FIGURE 1
Q. 5: Did What the Librarian Taught Relate to or Build on a Previous Lesson?





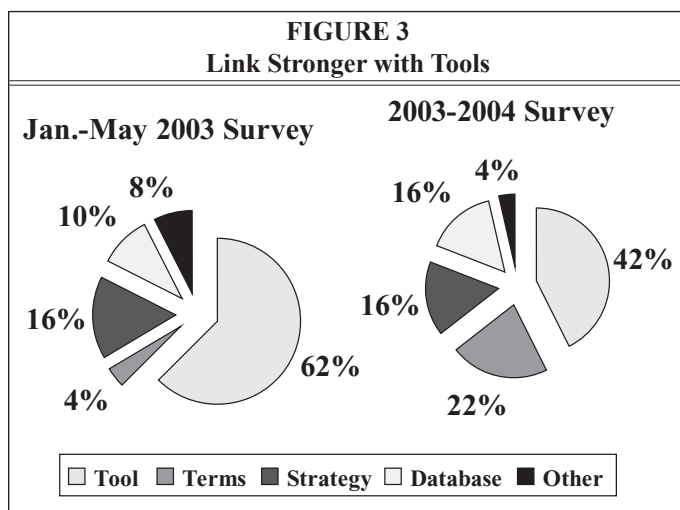
terview focuses on the context of the question and previous information literacy learning as well as clarification of the information need. The librarian can then be more intentional about making explicit links to classroom instruction, overcoming students' compartmentalization of knowledge by reminding them, "Remember the search strategy you

very strong, course-integrated program of information literacy across the curriculum. This finding raises a question the study cannot answer: Do students ask fewer reference questions after classroom information literacy instruction? Previous studies have not shown this to be true. A large majority of the students who did have instruction understood the connection between the reference instruction and their in-class instruction. About three-quarters recognized a link to previous information literacy instruction sessions. This suggests that reference assistance does help students practice and reinforce information literacy knowledge.

Implications of this study for the practice of reference include embracing the facilitator role and developing reference service primarily as a venue for guided practice. In this model, rather than assume students asking questions are a tabula rasa, librarians expect to situate them within a web of information literacy instruction. The reference in-

learned in your English class? Now we're going to apply it to this new setting." Additional ways to help cement student learning might include graphic organizers and other written takeaway cues. The authors are experimenting with a draft form they have developed as a "Reference Assistance Checklist." (See Appendix C.)

The study raises questions about the format of reference assistance. Perhaps librarians are asking short reference encounters to accomplish too much. "Rethinking Reference" initiatives of the past two decades have focused largely on the inefficiency of on-demand reference and the impact of electronic sources and remote users on traditional reference



service. Another fruitful topic for contemplation and experimentation may be the ability of reference desk service to achieve higher-order instructional objectives, particularly in light of Carol Collier Kuhlthau's recent work on levels of intervention.²³ As a result of this study and such reflection, the Wartburg library has decided to begin a campaign to move instructional questions from on-demand desk service to scheduled consultations. Consultations are longer—up to thirty minutes are allocated for each appointment—and advance scheduling allows the librarian to plan both answer and instruction. Similar survey assessment of consultations is being conducted to allow comparison with the present study, and early results suggest that librarians' learning objectives are indeed more successfully achieved with increased instruction time and opportunity to plan. The role of virtual reference within the suggested reference model is also a topic for discussion. Does the lack of face-to-face contact between student and librarian make reinforcing classroom learning harder or just different? Can librarians from other institutions be expected to help unknown students in "foreign" information literacy programs make links between reference help and classroom instruction? The Wartburg library declined an opportunity to participate in a multi-institution virtual reference consortium because of just such doubts. What other benefits or challenges does technology offer? Can online tutorials be constructed in such a way as to answer students' questions at the point of need, provide some very practical instruction, and reinforce information literacy concepts?

Using reference for reinforcement as well as instruction calls attention to the need to familiarize all reference staff with the information literacy program. Direct exposure to the information literacy program, through inviting or expecting all staff who serve at the reference desk to sit in on information literacy class sessions, enables them better to reinforce what is being taught.

Perhaps the most useful outcome of this study is the process. The results themselves are not earth-shattering, although they are interesting, but this seems to be the first instrument to attempt to discover whether students learn from reference service specifically what the librarian intended to teach. The authors invite other librarians to employ the same method, after revising the forms to reflect local practice and vocabulary, and they would welcome the opportunity to compare Wartburg's results with those from other libraries.

Conclusion

Demands for assessment confront higher education. Librarians often seem unsure both how "assessment" differs from the evaluation measures they have long used and how assessment of library-related student learning might be conducted. As assessment has come to the fore in the academic world, various authors have exhorted reference librarians to improve their performance, and academic librarians have responded that the critics fail to comprehend the complexity of reference. This study has shown one method for meaningful formative assessment of student learning from reference service that the authors believe is both locally useful and broadly applicable. More research is needed to test that hypothesis.

Notes

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2. Peter Hernon and Charles R. McClure, "Unobtrusive Reference Testing: The 55 Percent Rule," *Library Journal* (Apr. 15, 1986): 37–41.
3. Joan C. Durrance, "Reference Success: Does the 55 Percent Rule Tell the Whole Story?"

Library Journal (Apr. 15, 1989): 31–36.

4. Carolyn W. Jardine, "Maybe the 55 Percent Rule Doesn't Tell the Whole Story: A User-satisfaction Survey," *College & Research Libraries* 56 (1995): 477–85.

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9. Green and Peach, "Assessment of Reference Instruction," 257.

10. James K. Elmborg, "Teaching at the Desk: Toward a Reference Pedagogy," *portal: Libraries and the Academy* 2 (2002): 455–64; Jill Gremmels and Claudia Ruediger, "The Library's Role in Assessing Student Learning," in *A Collection of Papers on Self-Study and Institutional Improvement; Volume 2: Organizational Effectiveness and Future Directions*, 100-03 (Chicago: Higher Learning Commission, 2003); Cecilia Lopez, "Assessment of Student Learning: Challenges and Strategies," *The Journal of Academic Librarianship* 28 (2002): 356–67.

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12. Elmborg, "Teaching at the Desk," 455.

13. Peter Ewell, "Perpetual Movement: Assessment after Twenty Years." Keynote address at the American Association for Higher Education (AAHE) Assessment Forum, Boston, Mass., June 22, 2002.

14. Green and Peach, "Assessment of Reference Instruction," 256.

15. *Ibid.*, 258.

16. JoAnn Jacoby and Nancy P. O'Brien, "Assessing the Impact of Reference Services Provided to Undergraduate Students," *College & Research Libraries* 66 (2005): 324–40.

17. *Ibid.*, 325.

18. *Ibid.*, 338.

19. Iannuzzi, "We Are Teaching," 304.

20. American Library Association, Association of College and Research Libraries, *Information Literacy Competency Standards for Higher Education*. Available online at www.ala.org/ala/acrl/acrl-standards/informationliteracycompetency.htm. [Accessed 7 June 2006].

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22. Cynthia Bane, e-mail message to authors, July 21, 2006.

23. Carol Collier Kuhlthau, "Learning through the Inquiry Process: Vital Roles for Librarians." Keynote address at the Third Annual Des Moines Area Community College Information Literacy Forum, Des Moines, Ia., June 14, 2006.

Appendix A

Wartburg's reference librarians are conducting this survey. We would appreciate your taking a few minutes to answer five questions. Your answers will help us improve the quality of reference service to Wartburg students. Thank you very much!

1. Did the librarian who helped you just now teach you anything while answering your question?

- Yes → continue to question 2
- No → end of survey. Please drop this form in the box provided. Thank you for your participation.

2. If you answered yes to question 1, please describe what the librarian taught you:

3. Did a librarian meet with your class and teach your class how to find information for this assignment?

- Yes → continue to question 4
- No → continue to question 5

4. Did what the librarian taught you just now (as reflected in your answer to question 2) relate to or build on anything a librarian taught your class about finding information for this assignment?

- Yes No

5. Did what the librarian taught you just now (as reflected in your answer to question 2) relate to or build on anything a librarian taught in a previous lesson in another class?

- Yes No

Thank you for your participation!

Please deposit the survey in the box on the Service Desk when you finish.

1. What did you intend to teach this student during reference help? (One answer only, please.)

- choosing good search terms
- database selection
- search strategy (overview, finding, fact sources)
- evaluating information (ESA or VESA)
- how to use a specific tool
- other (specify below)

Topic or tool taught: _____

2. Do you think the student understood your intention during this instruction?

- Yes No

3. Comments?

Appendix B

Wartburg's reference librarians are conducting this survey. Your answers will help us improve the quality of reference service to Wartburg students. Thank you very much!

Course # your question relates to: (RE101, etc.) _____

Name of Instructor _____

Gender: ___ Male ___ Female

Year at Wartburg: ___ 1Y ___ 2Y ___ 3Y ___ 4Y

1. Did the librarian who just helped you teach you anything while answering your question?

- Yes → Continue to question 2
- No → Continue to question 3

2. If you answered yes to question 1, please describe briefly what the librarian taught you:

Which of these categories would best fit your answer?

- choosing good search terms
- database selection
- search strategy (overview, finding, fact sources)
- evaluating information (ESA or VESA)
- how to use a specific tool
- none of the above

3. Did a librarian meet with your class and teach your class how to find information for this assignment?

- Yes → Continue to question 4
- No → End of survey. Please deposit your survey in the box on the Service Desk. Thank you!

4. Did what the librarian taught you just now (as reflected in your answer to question 2) relate to or build on anything a librarian taught your class about finding information for this assignment?

- Yes No

5. Did what the librarian taught you just now (as reflected in your answer to question 2) relate to or build on anything a librarian taught in a previous lesson in another class?

- Yes No

Thank you for your participation! **Please deposit the survey in the box on the Service Desk when you finish.**

1. What did you intend to teach this student during reference help? (If you choose multiple answers, please rank them 1, 2, 3, etc.)

- choosing good search terms
- database selection
- search strategy (overview, finding, fact sources)
- evaluating information (ESA or VESA)
- how to use a specific tool
- other (specify below)

Topic or tool(s) taught: _____

2. Do you think the student understood your intention during this instruction?

- Yes No

3. Comments?

Appendix C: Reference Assistance Checklist

Information Literacy Concept Taught or Reinforced:

- Search strategy (overview and finding sources)
- Database selection
- Choosing good search terms
- Evaluating information
- Specialized scholarly resource
- Bias and perspective

I recommend you use these resources:

- Academic Search Premier
- Other EBSCOHost database: _____
- iPac (library's catalog)
- LexisNexis
- JSTOR
- Oxford Reference Online
- CSA database: _____
- WorldCat
- Other: _____

Because they:

- Will help you get background information on your topic
- Are specialized for your topic
- Are scholarly
- Were discussed in class
- Were recommended in a bibliography

I recommend you use these search terms:

Because they:

- Will assist in narrowing/broadening your topic
- Were recommended in a thesaurus

Turn the page over for a Boolean diagram.

Other advice:

Librarian:

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