

What Faculty Want: A Study of Attitudes Influencing Faculty Collaboration in Library Instruction

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Abstract

Why do some faculty members frequently use library instruction [LI], while others just don't bother? This study discusses findings from in-depth interviews with faculty members about why they use and value librarian-provided instruction, as well as results of a survey of perceptions of organizational climate administered to these interviewees and to a control group with the goal of ascertaining whether heavy LI users differ significantly in this area from those who do not use LI. Findings have implications for librarians seeking to "sell" LI to faculty members in terms of faculty values and to identify potential partners for collaboration on their campuses.

Nota bene: Only findings from the survey administration—regarding ways in which heavy LI users may differ from other faculty in their perceptions of organizational climate—will be discussed in this paper. Findings from the interviews will be reported in the presentation of the same title as this paper at the 2003 Association of College and Research Libraries Conference.

Introduction

Over the years, numerous studies have examined the degree to which college and university faculty request LI and the demographic factors that correlate with faculty receptivity to LI. Cannon,¹ Feldman, and Sciammarella;² Leckie and Fullerton;³ Maynard;⁴ and Thomas⁵ all found that significant numbers of faculty members do not request LI for their classes: between 55 percent and 86 percent of faculty at the institutions in these surveys used no librarian-provided instruction in their classes.⁶ In fact, in Amstutz and Whitson's survey of 313 professors at the University of Wyoming, only 45 percent of respondents even credited librarians with playing an important role in helping students develop information literacy skills.⁷ Other, related studies have looked more specifically at how various demographic factors—faculty members' sex, age, discipline, highest degree, tenure status, rank, years of teaching experience, etc.—relate to faculty use, or non-use, of library instruction. The conclusions of these studies are sometimes difficult to

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reconcile, as their findings seem to depend upon the questions asked and the population surveyed. Faculty members' disciplines,⁸ the level of courses they teach,⁹ their own experiences in learning the library,¹⁰ their frequency of library use,¹¹ their publishing output,¹² and their general level of satisfaction with the library¹³ seem, however, to have some relationship to their receptivity to LI, while their sex,¹⁴ age,¹⁵ teaching experience,¹⁶ highest degree,¹⁷ and source of highest degree¹⁸ have no significant relationship to their attitudes toward library instruction. These studies, further, reveal that faculty members opt not to avail themselves of LI for various reasons, including:

- Their belief that students figure out library and information research on their own—or *should* do so,¹⁹
- Their belief that library and information research skills have been taught elsewhere and are not their responsibility,²⁰
- Their belief that individual students can and will ask for help—from them or from librarians—on an as-needed basis,²¹
- Their own teaching of library and information research skills to their students,²²
- Their belief that the course curriculum is “too full” for library instruction,²³
- Difficulties in scheduling instruction with the library/librarian,²⁴
- Lack of awareness of librarian-provided instruction,²⁵
- Dissatisfaction with librarian-provided instruction,²⁶ and
- Concerns over librarians' mastery of their subject content.²⁷

Rationale for the current study

Previous studies have focused on what Leckie and Fullerton describe as “why not's”—*why* faculty members do *not* use LI services with their classes. This current study differs from its predecessors by focusing on why those faculty members who use LI do so and what, specifically, they value about it, important questions given that these users are among the minority of faculty. While there have been anecdotal reports about what faculty members value in librarians,²⁸ there has been no systematic examination of what faculty members value about librarians within the context of library instruction. Most of these earlier studies, with the notable exception of Leckie and

Fullerton,²⁹ have relied upon surveys rather than interviews as in the current study.

Thirty faculty members at a publicly funded, four-year, doctoral granting institution were selected for in-depth interviews regarding why they use librarian-provided instruction with their courses and what they value about it. These thirty faculty members can be classed as “heavy” users of LI, requesting LI for multiple courses in an academic year. Interview data were analyzed using *The Ethnograph* qualitative data analysis software available from Qualis Research. In addition to the interviews, faculty also completed a modified version of the *Learning Organization Practices Profile* (LOPP), a normless attitude survey used for measuring people's perceptions of organizational climate, information flow, individual and team practices and development, work processes, and performance goals.³⁰ The same survey was also sent to 100 randomly-selected faculty on the same campus who do not use library instruction. Results of the survey administration with these separate groups were analyzed for statistically significant differences. The positive hypothesis was that faculty who use LI heavily with their courses would score higher on the LOPP in their valuations of flexibility, risk taking, creativity, continuous growth, working across boundaries, valuing information sharing, openness and trust, and learning from experience than faculty who do not use LI. We selected the LOPP as an instrument because the qualities it measures relative to learning organizations closely correspond to those noted by Raspa and Ward as required for successful librarian-faculty collaboration.³¹

Underlying this study is the belief that librarians' ability to collaborate effectively with faculty in LI would be heightened if they had a better sense of why those faculty members who *do use* librarian-provided instruction with their classes make this choice. Additionally, while faculty members' demographics (age, rank, etc.) are not subject to modification, their commitment to the learning organization and collaborative values could potentially be influenced by their interaction with librarians. Teaching and learning in LI programs can be improved through an exploration of these issues.

Methodology

Sample and Target Populations

All faculty members were selected for interviewing

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and/or surveying by using a table of random numbers to sample from the target population.³² The target population of heavy LI users included all instructors (tenure-track and non-tenure-track) who had requested LI for multiple courses over multiple academic terms and had had this instruction provided by multiple librarians or library staff between 1997 and 2001. Nontenure-track faculty were included because New Mexico State University (NMSU) has a stable pool of long-term adjuncts who regularly use LI. Faculty who use LI over multiple academic terms but only with the same course, or only when provided by a particular librarian, were excluded because their

commitment to LI generally may not be particularly high; they may, for example, view LI as relevant only when they are teaching a disciplinary research methods course, or they may agree to LI simply because of a personal friendship with an individual librarian. Forty-three faculty members met these criteria for being classed as heavy users of LI, and thirty were randomly selected for both interviews and surveying. Table 1 lists the demographics of these faculty members. Table 2 provides percentages by gender, tenure status and academic college. While all colleges at NMSU are represented in this sample of heavy LI users, the majority (60%) are from humanities and

Table 1: Interviewee Demographics

Faculty Member	Sex	College/Department	Tenure Status and Academic Rank
#1	Male	Business/Economics	Associate Professor
#2	Male	Agriculture/Fishery & Wildlife Science	Nontenure Track
#3	Male	Arts & Sciences/History	Associate Professor
#4	Male	Arts & Sciences/Geography	Assistant Professor
#5	Male	Arts & Sciences/English	Associate Professor
#6	Male	Arts & Sciences/Government	Associate Professor
#7	Male	Engineering/Civil & Geological Engineering	Professor
#8	Female	Business/Finance	Professor
#9	Female	Business/Finance	Associate Professor
#10	Female	Arts & Sciences/Mathematics	Nontenure Track
#11	Male	Arts & Sciences/Government	Associate Professor
#12	Male	Arts & Sciences/Government	Associate Professor
#13	Male	Agriculture/Animal & Range Science	Professor
#14	Male	Business/Management	Professor
#15	Male	Arts & Sciences/History	Assistant Professor
#16	Male	Education/Educational Mgt & Development	Associate Professor
#17	Male	Arts & Sciences/Mathematics	Non-Tenure Track
#18	Female	Arts & Sciences/English	Non-Tenure Track
#19	Female	Arts & Sciences/English	Non-Tenure Track
#20	Male	Arts & Sciences/History	Professor
#21	Male	Arts & Sciences/Criminal Justice	Assistant Professor
#22	Female	Arts & Sciences/Communication Studies	Non-Tenure Track
#23	Male	Agriculture/Agronomy & Horticulture	Professor
#24	Female	Health & Human Services/Health Science	Professor
#25	Male	Arts & Sciences/History	Assistant Professor
#26	Female	Arts & Sciences/Government	Assistant Professor
#27	Female	Health & Human Services/Nursing	Assistant Professor
#28	Female	Arts & Sciences/Sociology & Anthropology	Associate Professor
#29	Female	Business/Economics	Associate Professor
#30	Male	Arts & Sciences/Communication Studies	Non-Tenure Track

Table 2: Analysis of Interviewee Demographics

Gender	N=	Percent of Total
Male	19	64.00
Female	11	36.00
Tenure Status	N=	Percent of Total
Tenure or tenure-track	23	76.60
Non-tenure track	7	23.40
College	N=	Percent of Total
Arts & Sciences	18	60.00
Business	5	16.60
Agriculture	3	10.00
Health & Human Services	2	6.6
Engineering	1	3.3
Education	1	3.3

off-put by those questions on the LOPP that are most clearly applicable to business settings (e.g., “As appropriate, people periodically renegotiate their goals with their key customers, suppliers, and/or managers”). The shortened version of the LOPP took no more than five minutes to complete and had 18 questions relating to the individuals’ perceptions of the organization’s vision and strategy, climate, information flow, individual and team practices, work processes, performance goals and feedback, rewards and recognition and individual and team development.

The LOPP was selected as an instrument because the qualities it measures relative to learning organizations closely correspond to those noted by Raspa and Ward

social sciences departments in the College of Arts and Sciences.

A control group of 100 faculty members who did not meet the above definition of being heavy users of LI was also selected for surveying. All instructors (tenure-track and non-tenure-track) at New Mexico State University who were not among the 43 heavy users of LI comprised the target population for the control group. These 929 instructors were identified from their listings in the *2001/2002 New Mexico State University Campus Directory*.

Two calls for completion and return of the survey were sent out and resulted in a 34.6 percent response rate; the response rate was 50 percent among heavy LI users and 30 percent among the control group. This is well within the (generally low) response rate characteristic of faculty respondents in other surveys.³³

Instruments

The survey of attitudes regarding organizational climate administered to both heavy LI users and the control group of non-heavy-LI users was a shortened version of the *Learning Organization Practices Profile* (LOPP), a normless attitude survey used for measuring people’s perceptions of organizational climate, information flow, individual and team practices and development, work processes, and performance goals. The full version of the LOPP contains 60 questions and takes approximately 30 minutes to complete. It was feared that faculty respondents would balk at completing a 30 minute survey and would be especially

as required for successful librarian-faculty collaboration. The results of the survey were presented in frequencies and analyzed for statistically significant differences using a chi-square test because of the nominal nature of the data. Findings from the survey’s administration are discussed later in this paper.

The survey was primarily designed to gauge whether heavy users of LI differ significantly from non-heavy-users of LI in their perceptions of their organization setting. The survey was thus to serve as a “check” upon one possible way in which heavy users of LI may differ from their peers. The interviews with heavy users of LI were the most important part of the research project, though, as they allowed faculty members to voice their own reasons for using and valuing librarian-provided instruction. Interviewing was selected as a technique because it is an effective way to uncover the often unspoken attitudes and beliefs underlying observable behaviors,³⁴ and, as Hightower notes, “Identifying attitudes is a significant step toward designing outreach programs directed at increased use of the library.”³⁵ We believe that this combination of interviewing and surveying will help to bridge the “tension between positivist and constructivist paradigms that undergirds the tension between quantitative and qualitative methods.”³⁶ All interviewees were asked the same six core questions, with additional questions or prompts used as follow-ups during the interview as needed. These core questions were:

1. Tell us about when you first began incorporating librarian-provided information research instruc-

tion into your courses and how long you have been doing this.

2. Why do you think it is important that your students be taught library research skills and information sources?

3. Why do you ask a librarian to teach your students library research skills and information sources?

4. Tell us about your best and worst experiences with librarian-provided information research instruction. What made these “best” and “worst” experiences stand out?

5. Please recall some concrete examples of library instruction experiences that made a difference (positively or negatively) for you and/or your students.

6. Beyond these concrete examples, please tell us about your perceptions of the effects (short- and/or long-term) of librarian-provided information research instruction on the students in your courses.

Interviews took approximately 30 minutes; were conducted at various locations on campus, depending upon the interviewee’s preference; and were conducted by the three authors of this paper.

Notes were taken on the interviews, as brief prompts to memory, and all interviews were tape-recorded for later transcription and coding using *The Ethnograph*, a qualitative data analysis (QDA) software available from Qualis Research. The decision to use some form of QDA software was based on these reported benefits: QDA “enhances speed of analysis, as well as the freedom to ‘play with the data’ and explore different possibilities of comparative work. Furthermore it allows for the advancement of comparative work, given its systematic classification and retrieval of data.”³⁷ QDA also adds “the ability to interrogate data and revise conceptualizations through the endless cross-data searches which can be carried out and the possibilities for linking all types of data, indices, and glossaries [It] can make it easier to account for analytic processes which have taken place and to show the procedures on which results are based.”³⁸ *The Ethnograph* works upon transcribed text by attaching code words to segments of the text, which are identified by line numbers. Each section of text can have up to twelve code words with *The Ethnograph*, and codes can overlap and be nested. Establishing the coding system is the most important, and often the most time-consuming, part of research with QDA, and many researchers have noted that their creative

work and discoveries tend to take place at the coding stage.³⁹ Once the transcribed text is coded, *The Ethnograph* allows users to search the data files to retrieve segments identified by the same codes; users can search up to five code words at one time using Boolean operators to look for co-occurrence.

Specific findings from the interviews and QDA using *The Ethnograph* will not be discussed in this paper; they are, rather, saved for presentation at the 2003 Association of College and Research Libraries Conference.

Survey Findings

Overall, heavy LI users did not differ in any statistically significant way from other faculty in their perceptions of organizational climate. Heavy LI users scored an average of 70.8 on the shortened version of the LOPP, 0.5 points lower than the 71.3 average score characteristic of the control group, a statistically insignificant difference. The frequency with which faculty surveyed selected various responses on the shortened version of the LOPP is tabulated in Appendix A, while Appendix B cumulates the overall frequencies with which they agree or disagree, to any degree, with the statements on the shortened version of the LOPP. There were, however, statistically significant differences in the responses of heavy LI users and members of the control group on individual questions within the shortened version of the LOPP.

Heavy LI users were *significantly more likely* than other faculty to agree with the statements that:

- We have a vision of ourselves as an organization in which learning and purposeful change are expected.
- We are not afraid to share our opinions and speak our minds.
- We eliminate “we/they” mindsets; we cooperate and collaborate whenever possible.
- We treat one another as adults—as people who can think for themselves and be responsible.
- People are interested in and care for one another.
- Individuals’ performance goals are clearly aligned with the organization’s strategic goals.
- We are not punished for making mistakes, for having tried something worthwhile and failed.

Interestingly, though, they expressed a *significantly lower* level of agreement than other faculty with the following statements:

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- People have a broad understanding of our organization's structure, processes, and systems and how they are interrelated.
- We have a healthy sense of "play" about our work; it's o.k. to enjoy our jobs.
- People are encouraged to analyze mistakes in order to learn how to do better next time.
- When we engage in problem solving, we consider the "ripple" effects that various solutions or action may have throughout the organization.

These differences are telling in that heavy LI users seem to be more attuned than other faculty to organizational visions and organizational goals, as well as to believe more strongly in organizational sharing and caring—and lack of organizational punishments for trial endeavors. They seem more serious about their work, especially the consequences of mistakes, and are skeptical of whether others understand the organization climate and interrelationships within the organization. It is hard to know, however, whether these factors are causes or effects of their willingness to collaborate in library instruction; realistically, they are probably mutually reinforcing as both causes and effects.

Preliminary Conclusions

Comments expressed in the interviews and results of the survey raise several broad issues that librarians will need to consider when seeking to work more effectively with faculty in fostering information literacy skills among college and university students.

1. Meaning of Collaboration: There is no question that students' view of and engagement in the research process is shaped by their sense of professors' expectations regarding this process: students with research assignments "are motivated largely by grades. . . . When they come to the library, they look for what they perceive as the most time-effective and cost-effective methods of finding information. This translates into using first what is most familiar . . . and easiest to obtain. They move into new territory reluctantly, chaotically, and many times only if they feel the professor requires it."⁴⁰ There is also no question that most students are being required by instructors to use library and information resources without LI⁴¹ because few instructors use librarian-provided LI with their classes *or* provide LI to their students themselves.⁴² This means that for students' research

processes to be transformed, for students even to receive the basic instruction they need to complete assignments, librarians must find ways to become collaborative partners in the process of higher education.⁴³ Much has been written about the nature of collaboration—how it is a "mutually beneficial and well-designed relationship entered into by two or more [individuals or] organizations to achieve common goals"⁴⁴ and how it requires significant effort, lots of time, desire to make things happen, and space for exploration without pressure for immediate results.⁴⁵ Numerous librarians have described collaborative ventures with particular faculty at their local institutions.⁴⁶ What is lacking, though, and perhaps impossible to attain, are criteria librarians might be able to use to identify potential partners for collaboration with some degree of predictive accuracy. While those faculty members who express a strong sense of organizational values and objectives and who view their colleagues as sharing, caring people, emerge from this study as more likely users of LI, even heavy LI users seem—from their comments in interviews—not always to conceptualize what they are doing with librarians in LI as collaboration.⁴⁷ For example, one heavy LI user returned an unanswered survey form with this rather revealing handwritten comment: "I have no idea what this survey has to do with librarian instruction or information resources and research strategies." Or, they do not always mean by "collaboration" what librarians would mean by it—a partnership of respectful equals who are both involved in setting the goals whose accomplishment is the purpose for the collaboration.⁴⁸

2. Value of Library Instruction: Similarly, in seeking to collaborate with faculty, librarians may find that faculty do not necessarily attribute the same importance to learning how to do information research that librarians, especially proponents of information literacy, do. Even heavy users of LI may locate the value of LI in the short-term (the development of skills to complete a particular assignment) rather in the long-term (the development of information literacy skills, critical thinking skills, or capabilities for lifelong learning). Findings here are similar to those of Baker in his survey of faculty at Pima Community College; faculty ". . . do not frame their support around the broad reasons for supporting information literacy which are usually cited by librarians and information

specialists (e.g., promoting information seeking skills as an important lifelong learning function or the importance of information literacy for today's knowledge workers).⁴⁹ Rather, they value its role in fostering the intellectual and emotional growth of students and in improving general communication skills. This poses obvious problems for librarians seeking to collaborate with faculty in providing information literacy instruction, as "true" collaboration is based on mutuality of goals.

3. Faculty Culture: While many faculty members are quite committed to teaching well and to the well-being of their students, they are not always well-positioned to view students' education in the broad context, beyond the confines of their discipline, and they can easily be overwhelmed by the various, not completely reconcilable, reform efforts prevalent on today's campuses. Faculty members must display a high level of commitment to research in their disciplines to earn the basic credentials necessary for becoming members of a faculty,⁵⁰ and research in disciplines is becoming progressively narrower in its specialization.⁵¹ Disciplinarity can work against collaboration in LI in two ways: (1) librarians, often seen as lacking a discipline of their own, may be viewed as lesser players in higher education, and (2) faculty may be less interested in teaching skills such as information literacy that fit more within "general education" than their discipline. Even those faculty who are attuned to the broader—general—education of students beyond their disciplinary content and skill base can easily be overwhelmed by the range of reform efforts advocated on today's campuses: writing across the curriculum, undergraduate research, service learning, learning communities, inter- and multi-disciplinary courses, etc.⁵² These reform efforts are not synonymous in their philosophical orientations or in the curricula they would implement, and librarians who suggest that information literacy is tautologous with critical thinking are making a naïve equation that faculty should mistrust. Another aspect of faculty culture is awareness that institutions typically do not recognize or reward collaboration or contributions to general education.⁵³ In fact, some would say that collaboration "involves a kind of work most faculty have experienced only occasionally and in a limited way. ... It requires interpersonal skills as much as intellectual abilities."⁵⁴

Notes

1. Among the 232 social sciences and humanities faculty members at York University responding to Cannon's survey, only 24 percent reported asking a librarian to teach a course-related or subject-specific session for their students, while 17 percent asked a librarian to demonstrate information resources and 12 percent asked a librarian to teach a general library research session. Anita Cannon, "Faculty Survey on Library Research Instruction," *RQ* 33 (1994): 531.

2. Feldman and Sciammarella surveyed 157 faculty members at The City College of New York and found that 64 percent of teaching faculty reported not making use of library instruction. Devin Feldman and Susan Sciammarella, "Both Sides of the Looking Glass: Librarian and Teaching Faculty Perceptions of Librarianship at Six Community Colleges," *College & Research Libraries* 61:6 (November 2000): 494.

3. Leckie and Fullerton's survey of 233 science and engineering faculty at two universities, the University of Waterloo and the University of Western Ontario, found that 55 percent had never used a tour provided by library staff with their courses, 75 percent had never used a general research session taught by a librarian, 81 percent had never used a topic-specific class taught by a librarian, 63 percent had never used a demonstration of resources by a librarian, and 80 percent had never used a hands-on workshop lead by a librarian. Gloria J. Leckie and Anne Fullerton, "Information Literacy in Science and Engineering Undergraduate Education: Faculty Attitudes and Pedagogical Practices," *College & Research Libraries* 60:1 (January 1999): 20.

4. In Maynard's survey of 92 faculty members teaching at the Citadel outside the English Department, two-thirds of respondents reported that they did not offer their students any form of LI. J. Edmund Maynard, "A Case Study of Faculty Attitudes toward Library Instruction: The Citadel Experience," *Reference Services Review* 18:2 (1990): 69.

5. Thomas' survey of 542 faculty at California State University, Long Beach found that "[I]n 1990, 9.0 percent of faculty requiring research papers reported that they 'always' requested that librarians give instruction; 35.1 percent reported 'sometimes' and 58.6 percent reported 'never.'" Joy Thomas, "Faculty Attitudes and Habits Concerning Library Instruction: How Much Has Changed Since 1982," *Research Strategies* 12:4 (1994): 215.

6. One notable exception to these numbers is the finding that in 1997–1998, 73 percent of full-time faculty at Earlham College used library instruction with their courses. Scott Walter et al., "Case Studies in Collaboration: Lessons from Five Exemplary Programs," In *The Collaborative Imperative: Librar-*

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ians and Faculty Working Together in the Information Universe, (Chicago: Association of College and Research Libraries, 2000): 43. The survey of faculty at Pennsylvania State University–Behrend College by Sellen and Jirouch in which 52 percent of faculty reported using some form of “library orientation” with their classes did not, unfortunately, specify whether this orientation was provided by the course instructor or the librarian. Mary K. Sellen and Jan Jirouch, “Perceptions of Library Use by Faculty and Students: A Comparison,” *College & Research Libraries* 45 (July 1984): 259–67.

7. In contrast, 53 percent credited the teaching faculty with playing a “very important” role in helping students develop information literacy skills and 64 percent located this responsibility with students themselves. Donna Amstutz and Donna Whitson, “University Faculty and Information Literacy: Who Teaches the Students?” *Research Strategies* 15:1 (1997): 18–25.

8. Sellen and Jirouch reported that while faculty in the arts and humanities, in the social and behavioral sciences, and those teaching courses for only first-year students find LI compatible with their discipline, 45 percent of faculty in natural science and engineering did not indicate LI as compatible with their courses. Hardesty similarly found that humanities and social science faculty were more likely to have positive attitudes toward libraries than those in the sciences and fine arts, but he attributed these differences to local, institutional contexts. Larry Hardesty, *Faculty and the Library: The Undergraduate Experience*, (Norwood, N.J.: Ablex, 1991): 32.

9. Leckie and Fullerton found that faculty are more likely to require library research of upper division (third and fourth year) courses, and Hightower found that more faculty requested library instruction for upper level courses than for introductory ones. Leckie and Fullerton, 17; Barbara Hightower, *The Effect of Faculty Library Attitudes and Experiences on Undergraduate Use of the Geology Library at the University of North Carolina at Chapel Hill*, (Unpublished Masters thesis: University of North Carolina at Chapel Hill, 1996): 14. Thomas, in contrast, found that course level had no impact on whether faculty requested library instruction. Thomas, 215. Related to course level, Cannon found that the type of course taught did not have any relationship to how valuable faculty deemed LI to be, while Hightower found that class size was a factor. Cannon, 528; Hightower, 18.

10. Thomas, 212.

11. Joy Thomas and Pat Ensor, “The University Faculty and Library Instruction,” *RQ* 23 (summer 1984): 435–36. Hightower’s findings were less strong: “Although those faculty who scored higher on the personal use scale generally

participate more in their students’ use of the library, no absolute correspondence between the two scales can be made.” Hightower, 15.

12. Marcia L. Boosinger, “Associations between Faculty Publishing Output and Opinions Regarding Student Library Skills,” *College & Research Libraries* (September 1990): 476; Thomas and Ensor, 435–36.

13. Hightower, 18; Maynard, 68; and Thomas and Ensor.

14. Hardesty, 23. Thomas, however, found that females were more likely to request LI. Thomas, 216.

15. Hardesty, 23.

16. Hardesty, 23. Hightower had a rather different conclusion—“faculty teaching at or above the average number of years (20 years) are more likely to require or encourage their students’ use of the library”—but based on a small and homogeneous population of 19 geology professors at the University of North Carolina at Chapel Hill. Hightower, 15.

17. Hardesty, 23.

18. Hardesty, 23.

19. Amstutz and Whitson; Cannon, 531; Leckie and Fullerton, 17; Thomas, 213. Maynard found that 68 percent of all faculty reported learning library skills on their own. Maynard, 72.

20. Nine percent of faculty in Cannon’s survey thought LI was unneeded. Cannon, 531. Many faculty think LI is “taken care of” in other courses: 30 percent of faculty in Lubans’ study thought the English department was responsible for LI, or as one faculty member said in Feldman and Sciammarella’s study “I thought this was done in basic English.” John Lubans, “Library Literacy: Let George Do It,” *RQ* 20 (winter 1980): 121–23; Feldman and Sciammarella, 494. See also Rae Haws, Lorna Peterson, and Diana Shonrock, “Survey of Faculty Attitudes towards a Basic Library Skills Course at Iowa State University,” *College & Research Libraries News* 50:3 (March 1989): 201–3.

21. Feldman and Sciammarella, 494.

22. Cannon, 531; Feldman and Sciammarella, 494; Robin N. Sinn, “A Comparison of Library Instruction Content by Biology Faculty and Librarians,” *Research Strategies* 17 (2000): 26.

23. Among faculty at California State University, Long Beach, only 16 percent said the curriculum was too full for LI in 1982, while 52.5 percent said this in 1990. Thomas, 213. See also Cannon, 531; Feldman and Sciammarella, 494, and Leckie and Fullerton, 22.

24. Cannon, 531.

25. Cannon, 531; Feldman and Sciammarella, 494.

26. Feldman and Sciammarella, 494.

27. Leckie and Fullerton, 22; Sinn; Maynard, 69.
28. Cf. Stahl, who interestingly mentions ability to teach among the qualities she desires in a librarian but who is referring to teaching herself or other faculty members, not her students. Aletha D. Stahl, "What I Want in a Librarian: One New Faculty Member's Perspective," *Reference and User Services Quarterly* 37:2 (winter 1997): 133–35.
29. Leckie and Fullerton supplemented their survey with in-depth, tape-recorded interviews of 35 faculty members.
30. Michael J. O'Brien, *Learning Organization Practices Profile*, (San Francisco: Jossey-Bass, 1994) and *Learning Organization Practices Profile: Guide to Administration and Implementation*, (San Francisco: Jossey-Bass, 1994).
31. Dick Raspa and Dane Ward, eds., *The Collaborative Imperative: Librarians and Faculty Working Together in the Information Universe*, (Chicago: Association of College and Research Libraries, 2000).
32. Arlene Fink, *How to Design Surveys*, (Thousand Oaks, Calif.: Sage Publications, 1995): 28.
33. The response rate was 37 percent in Sellen and Jirouch, 28 percent in Leckie and Fullerton, 41 percent in Cannon, 37 percent in Feldman and Sciammarella, 17.5 percent in Sinn, 28 percent in Thomas, 17 percent in Thomas and Ensor, 34.5 percent in Boosinger, and 33 percent in Amstutz and Whitson.
34. As Baxter Magolda suggests, interviews "generate rich information regarding how participants think as well as how they view themselves and their relations with the larger world." Marcia B. Baxter Magolda, "A Constructivist Revision of the Measure of Epistemological Reflection," *Journal of College Student Development* 42:6 (November/December 2001): 6.
35. Hightower, 4.
36. Baxter Magolda, 2. Qualitative data analysis (QDA) software, such as that used in this project, is also recognized by some researchers as helping "to bridge the gap between quantitative and qualitative data analysis." Beverly A. Smith and Sharlene Hesse-Biber, "Users' Experiences with Qualitative Data Analysis Software: Neither Frankenstein's Monster Nor Muse," *Social Science Computer Review* 14:4 (winter 1996): 428.
37. Wilma Mangabeira, "Qualitative Analysis and Microcomputer Software: Some Reflections on a New Trend in Sociological Research," *Studies in Qualitative Methodology* 5 (1995): 44.
38. Annemarie Sprokkereef et al., "The Data, the Team, and The Ethnograph," *Studies in Qualitative Methodology* 5 (1995): 82. Another benefit of QDA noted by some researchers using it is that "creativity can flourish from handling more codes, enabling the researcher to obtain a more complex picture of the data." Smith and Hesse Biber, 426.
39. Weaver and Atkinson, 149. Coding is not without its critics, though; some claim that it "recapitulates what Atkinson (1992) has called 'the culture of fragmentation' as a general approach to qualitative analysis. That is, it reflects the implicit assumption that data reduction and aggregation lie at the heart of the task." Weaver and Atkinson, 149.
40. See Valentine, who investigated the gap between faculty and student expectations of research process and product, acceptable sources, and what constitutes "legitimate effort." Barbara Valentine, "The Legitimate Effort in Research Papers: Student Commitment Versus Faculty Expectations," *Journal of Academic Librarianship* 27:2 (March 2001): 107–15.
41. Sellen and Jirouch.
42. "Half (or more) of the faculty responded that they never use assignments to introduce library research and never talk about retrieval tools, search strategies, or the Internet in class, whereas about a quarter of the faculty never discuss the research process in general, or appropriate indexes/abstracts." Leckie and Fullerton, 17. The problem with faculty themselves teaching students how to research is that faculty have an "expert researcher" model of the research process that does not transfer easily to novices. Gloria J. Leckie, "Desperately Seeking Citations: Uncovering Faculty Assumptions about the Undergraduate Research Process," *Journal of Academic Librarianship* 22 (May 1996): 202.
43. Other arguments for librarians and faculty becoming collaborative partners in developing students' information literacy skills are (1) that even course-related LI is insufficient to promote these skills and needs to be replaced with curriculum-integrated LI and (2) that "we have reached a point at which neither librarians nor instructional faculty can adequately teach the research process in isolation from each other." Librarians lack subject expertise in the disciplines, while faculty are not as attuned to changes in the information universe. Rochelle L. Minchow et al., "Breaking New Ground in Curriculum Integrated Instruction," *Medical Reference Services Quarterly* 12:2 (summer 1993): 11; Raspa and Ward, 15–16.
44. Raspa and Ward, 4.
45. Raspa and Ward, 7.
46. Cf. Carol A. Drum, "Partnerships in Undergraduate Chemistry Education," *Science & Technology Libraries* 16:3/4 (1997): 89–97; Paula Elliot, "The View from Square One: Librarian and Teaching Faculty Collaboration on a New Interdisciplinary Course in World Civilizations," *The Reference Librarian*, no. 24 (1989): 87–112; Linda M. Fidler, and Rich-

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ard S. James, "Integrating Library User Education with the Undergraduate Music History Sequence," *Music Reference Services Quarterly* 2:1/2 (1993): 183–94; Minchow et al.; Colin Orians and Laurie Sabol, "Using the Web to Teach Library Research Skills in Introductory Biology: A Collaboration between Faculty and Librarians," *Issues in Science and Technology Librarianship* (summer 1999); Alison Scott Ricker, "Chemistry Information for the Undergraduate in a One-Credit Course: Faculty/Librarian Team Teaching," *Science & Technology Libraries* 16:3/4 (1997): 45–67; and Terri Pedersen Summey, "Biological Research and the Library: A Collaboration in Online Research and Library Instruction," *Issues in Science and Technology Librarianship* (fall 1997).

47. Faculty—even heavy users of LI—do not generally think of librarians as collaborative partners; rather, they often viewed librarians as supportive plays, keepers of the collections and occasional providers of tours or lectures on particular databases. Valentine notes that "Librarians hold a unique position in the academic institution, often straddling the line between educator and administrator."

48. As Leckie and Fullerton said, "Because it seems that for many faculty, notions of collaboration do not extend to assignments, teaching, or grading, the question then arises as to what the faculty conception of collaboration really is." Leckie and Fullerton, 24.

49. Robert K. Baker, "Faculty Perceptions towards Student Library Use in a Large Urban Community College," *Journal of Academic Librarianship* 23:3 (May 1997): 179.

50. As the Penn State Symposium on General Education says of today's professoriate, "The priority for their [faculty] efforts could be ... listed as (1) research in their discipline, (2) graduate student education, (3) education of majors in their discipline, and (4) general undergraduate education." Penn State Symposium on General Education, *Students in the Balance: General Education in the Research University*, (State College, Penn.: Pennsylvania State University, 2002): 48.

51. Richard A. Posner, *Public Intellectuals: A Study of Decline*, (Cambridge, Mass.: Harvard University Press, 2001): 56.

52. David Schoem, "Transforming Undergraduate Education: Moving beyond Distinct Undergraduate Initiatives," *Change* (November/December 2002): 51–52.

53. Raspa and Ward, 8.

54. Schoem, 54.

search Strategies 15:1 (1997): 18–25.

Baker, Robert K. "Faculty Perceptions towards Student Library Use in a Large Urban Community College." *Journal of Academic Librarianship* 23:3 (May 1997): 177–82.

Baxter Magolda, Marcia B. "A Constructivist Revision of the Measure of Epistemological Reflection." *Journal of College Student Development* 42:6 (November/December 2001): 1–14.

Boosinger, Marcia L. "Associations between Faculty Publishing Output and Opinions Regarding Student Library Skills." *College & Research Libraries* (September 1990): 471–81.

Cannon, Anita. "Faculty Survey on Library Research Instruction." *RQ* 33 (1994): 524–41.

Divay, Gaby, Ada Ducas, and Nicole Michaud-Oustryk. "Faculty Perceptions of Librarians at the University of Manitoba." *College & Research Libraries* 48 (January 1987): 27–35.

Drum, Carol A. "Partnerships in Undergraduate Chemistry Education." *Science & Technology Libraries* 16:3/4 (1997): 89–97.

Elliot, Paula. "The View from Square One: Librarian and Teaching Faculty Collaboration on a New Interdisciplinary Course in World Civilizations." *The Reference Librarian*, no. 24 (1989): 87–112.

Feldman, Devin, and Susan Sciammarella. "Both Sides of the Looking Glass: Librarian and Teaching Faculty Perceptions of Librarianship at Six Community Colleges." *College & Research Libraries* 61:6 (November 2000): 491–98.

Fidler, Linda M., and Richard S. James. "Integrating Library User Education with the Undergraduate Music History Sequence." *Music Reference Services Quarterly* 2:1/2 (1993): 183–94.

Fink, Arlene. *How to Design Surveys*. Thousand Oaks, Calif.: Sage Publications, 1995.

Hardesty, Larry. "The Influence of Selected Variables on Attitudes of Classroom Instructors Toward the Undergraduate Educational Role of the Academic Library." In *Academic Libraries: Myths and Realities. Proceedings of the Third National Conference of the Association of College and Research Libraries*. Chicago: ACRL, 1984: 365–77.

———. *The Development of a Set of Scales to Measure the Attitudes of Classroom Instructors toward the Undergraduate Educational Role of the Academic Library*. Unpublished Ph.D. dissertation. Indiana University, 1982.

Bibliography

Amstutz, Donna, and Donna Whitson. "University Faculty and Information Literacy: Who Teaches the Students?" *Re-*

- . *Faculty and the Library: The Undergraduate Experience*. Norwood, N.J.: Ablex, 1991.
- . "Faculty Culture and Bibliographic Instruction: An Exploratory Analysis." *Library Trends* 44 (fall 1995): 339–67.
- Haws, Rae, Lorna Peterson, and Diana Shonrock. "Survey of Faculty Attitudes towards a Basic Library Skills Course at Iowa State University." *College & Research Libraries News* 50:3 (March 1989): 201–3.
- Hightower, Barbara. *The Effect of Faculty Library Attitudes and Experiences on Undergraduate Use of the Geology Library at the University of North Carolina at Chapel Hill*. Unpublished Masters thesis. University of North Carolina at Chapel Hill, 1996.
- Ivey, Robert T. "Teaching Faculty Perceptions of Academic Librarians at Memphis State University: Fall 1990 Survey of 393 Teaching Faculty." *College & Research Libraries* 55 (January 1994): 69–82.
- Leckie, Gloria J. "Desperately Seeking Citations: Uncovering Faculty Assumptions about the Undergraduate Research Process." *Journal of Academic Librarianship* 22 (May 1996): 201–8.
- Leckie, Gloria J., and Anne Fullerton. "Information Literacy in Science and Engineering Undergraduate Education: Faculty Attitudes and Pedagogical Practices." *College and Research Libraries* 60:1 (January 1999): 9–29.
- Lubans, John. "Library Literacy: Let George Do It." *RQ* 20 (winter 1980): 121–23.
- Major, Jean Armour. "Mature Librarians and the University Faculty: Factors Contributing to Librarians' Acceptance as Colleagues." *College and Research Libraries* 54 (November 1993): 463–69.
- Mangabeira, Wilma. "Qualitative Analysis and Microcomputer Software: Some Reflections on a New Trend in Sociological Research." *Studies in Qualitative Methodology* 5 (1995): 43–62.
- Maynard, J. Edmund. "A Case Study of Faculty Attitudes toward Library Instruction: The Citadel Experience." *Reference Services Review* 18:2 (1990): 67–76.
- Minchow, Rochelle L. et al. "Breaking New Ground in Curriculum Integrated Instruction." *Medical Reference Services Quarterly* 12:2 (summer 1993): 1–18.
- Meyer, Donald Paul. *An Investigation of Perceptions Regarding the Instructional Function of the Library among Faculty Members and Librarians at Public Colleges in Michigan*. Unpublished Masters thesis. Michigan State University, 1968.
- O'Brien, Michael J. *Learning Organization Practices Profile*. San Francisco: Jossey-Bass, 1994.
- . *Learning Organization Practices Profile: Guide to Administration and Implementation*. San Francisco: Jossey-Bass, 1994.
- Orians, Colin, and Laurie Sabol. "Using the Web to Teach Library Research Skills in Introductory Biology: A Collaboration between Faculty and Librarians." *Issues in Science and Technology Librarianship* (summer 1999). Available at <http://www.library.ucsb.edu/istl/99-summer/article2.html>.
- Penn State Symposium on General Education. *Students in the Balance: General Education in the Research University*. State College, Penn.: Pennsylvania State University, 2002.
- Posner, Richard A. *Public Intellectuals: A Study of Decline*. Cambridge, Mass.: Harvard University Press, 2001.
- Raspa, Dick, and Dane Ward, eds. *The Collaborative Imperative: Librarians and Faculty Working Together in the Information Universe*. Chicago: Association of College and Research Libraries, 2000.
- Ricker, Alison Scott. "Chemistry Information for the Undergraduate in a One-Credit Course: Faculty/Librarian Team Teaching." *Science & Technology Libraries* 16:3/4 (1997): 45–67.
- Schoem, David. "Transforming Undergraduate Education: Moving beyond Distinct Undergraduate Initiatives." *Change* (November/December 2002): 51–55.
- Sellen, Mary K., and Jan Jirouch. "Perceptions of Library Use by Faculty and Students: A Comparison." *College & Research Libraries* 45 (July 1984): 259–67.
- Sinn, Robin N. "A Comparison of Library Instruction Content by Biology Faculty and Librarians." *Research Strategies* 17 (2000): 23–34.
- Smith, Beverly A., and Sharlene Hesse-Biber. "Users' Experiences with Qualitative Data Analysis Software: Neither Frankenstein's Monster Nor Muse." *Social Science Computer Review* 14:4 (winter 1996): 423–32.
- Sprokkereef, Annemarie, et al. "The Data, the Team, and The Ethnograph." *Studies in Qualitative Methodology* 5 (1995): 81–104.
- Stahl, Aletha D. "What I Want in a Librarian: One New Faculty Member's Perspective." *Reference and User Services Quarterly* 37:2 (winter 1997): 133–35.
- Summey, Terri Pedersen. "Biological Research and the Library: A Collaboration in Online Research and Library Instruction." *Issues in Science and Technology Librarianship* (Fall 1997). Available at <http://www.library.ucsb.edu/istl/97-fall/article3.html>.

A Study of Attitudes Influencing Faculty Collaboration in Library Instruction

- Thomas, Joy. "Faculty Attitudes and Habits Concerning Library Instruction: How Much Has Changed Since 1982." *Research Strategies* 12:4 (1994): 209–23.
- Thomas, Joy, and Pat Ensor. "The University Faculty and Library Instruction." *RQ* 23 (summer 1984): 431–37.
- Valentine, Barbara. "The Legitimate Effort in Research Papers: Student Commitment Versus Faculty Expectations." *Journal of Academic Librarianship* 27:2 (March 2001): 107–15.
- Walter, Scott, et. al. "Case Studies in Collaboration: Lessons from Five Exemplary Programs." In *The Collaborative Imperative: Librarians and Faculty Working Together in the Information Universe*. Chicago: Association of College and Research Libraries, 2000: 39–78.
- Weaver, Anna, and Paul Atkinson. "From Coding to Hypertext: Strategies for Microcomputing and Qualitative Data Analysis." *Studies in Qualitative Methodology* 5 (1995): 141–68.

Appendix A Frequency of faculty responses on the shortened version of the LOPP

Question Number	Strongly disagree		Disagree		Somewhat disagree		Somewhat agree		Agree		Strongly agree	
	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI us
1. We discuss trends and forces that drive current and future changes in our marketplace and industry.	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI us
	0% N=0	0% N=0	6.7% N=2	13.3% N=2	13.3% N=4	6.7% N=1	16.7% N=5	33.3% N=5	43.3% N=13	40% N=6	20% N=6	6.7% N=1
2. We have a vision of ourselves as an organization in which learning and purposeful change are expected.	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI us
	0% N=0	0% N=0	10% N=3	6.7% N=1	6.7% N=2	0% N=0	6.7% N=2	40% N=6	50% N=15	40% N=6	26.7% N=8	13.3% N=2
3. People have a broad understanding of our organization's structure, processes, and systems and how they are interrelated.	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI us
	0% N=0	0% N=0	16.7% N=5	20% N=3	23.3% N=7	40% N=6	36.7% N=11	26.7% N=4	20% N=6	6.7% N=1	3.3% N=1	6.7% N=1
4. We are not afraid to share our opinions and speak our mind.	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI us
	0% N=0	0% N=0	16.7% N=5	13.3% N=2	23.3% N=7	20% N=3	36.7% N=11	33.3% N=5	20% N=6	33.3% N=5	0% N=0	0% N=0
5. We have a healthy sense of "play" about our work; it's o.k. to enjoy our jobs.	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI us
	3.3% N=1	0% N=0	0% N=0	6.7% N=1	3.3% N=1	20% N=3	26.7% N=8	53.3% N=8	43.3% N=13	6.7% N=1	23.3% N=7	13.3% N=2
6. We eliminate "we/they" mindsets; we cooperate and collaborate whenever possible.	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI us
	6.7% N=2	0% N=0	20% N=6	6.7% N=1	16.7% N=5	13.3% N=2	33.3% N=10	60% N=9	16.7% N=5	13.3% N=2	6.7% N=2	6.7% N=1
7. We treat one another as adults – as people who can think for themselves and be responsible.	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI us
	6.7% N=2	0% N=0	0% N=0	0% N=0	20% N=6	13.3% N=2	26.7% N=8	40% N=6	43.3% N=13	46.7% N=7	3.3% N=1	0% N=0
8. People are interested in and care for one another.	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI us
	0% N=0	0% N=0	3.3% N=1	0% N=0	6.7% N=2	0% N=0	50% N=15	53.3% N=8	36.7% N=11	46.7% N=7	3.3% N=1	0% N=0
9. As our work group or project teams solve problems or create new approaches, we communicate our learning and results throughout the organization (through memos, presentations, e-mail, etc.)	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI us
	3.3% N=1	6.7% N=1	6.7% N=2	13.3% N=2	30% N=9	13.3% N=2	36.7% N=11	40% N=6	23.3% N=7	13.3% N=2	0% N=0	13.3% N=2

Appendix A (continued)
Frequency of faculty responses on the shortened version of the LOPP

Question Number	Strongly disagree		Disagree		Somewhat disagree		Somewhat agree		Agree		Strongly agree	
	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI users	All faculty	LI us
10. Individuals and teams are encouraged to identify and solve problems.	6.7% N=2	0% N=0	6.7% N=2	6.7% N=1	16.7% N=5	20% N=3	26.7% N=8	60% N=9	43.3% N=13	13.3% N=2	0% N=0	0% N=0
11. People and groups are encouraged to analyze mistakes in order to learn how to do better next time.	6.7% N=2	6.7% N=1	6.7% N=2	6.7% N=1	13.3% N=4	33.3% N=5	46.7% N=14	40% N=6	23.3% N=7	13.3% N=2	0% N=0	0% N=0
12. We share our expertise and learn from one another through informal conversations and "storytelling."	3.3% N=1	0% N=0	3.3% N=1	0% N=0	6.7% N=2	20% N=3	50% N=15	40% N=6	33.3% N=10	40% N=6	0% N=0	0% N=0
13. We routinely experiment with new approaches to our work; we try out new ideas.	10% N=3	6.7% N=1	3.3% N=1	0% N=0	20% N=6	26.7% N=4	33.3% N=10	33.3% N=5	26.7% N=8	26.7% N=4	6.7% N=2	6.7% N=1
14. When we engage in problem solving, we consider the "ripple" effects that various solutions or actions may have throughout the organization.	0% N=0	0% N=0	10% N=3	26.7% N=4	30% N=9	33.3% N=5	40% N=12	26.7% N=4	10% N=3	13.3% N=2	3.3% N=1	0% N=0
15. Individuals' performance goals are clearly aligned with the organization's strategic goals.	10% N=3	0% N=0	16.7% N=5	20% N=3	33.3% N=10	33.3% N=5	33.3% N=10	40% N=6	0% N=0	6.7% N=1	3.3% N=1	0% N=0
16. People are recognized for being courageous, that is, for experimenting and taking appropriate chances.	10% N=3	0% N=0	20% N=6	26.7% N=4	30% N=9	40% N=6	30% N=9	26.7% N=4	6.7% N=2	6.7% N=1	0% N=0	0% N=0
17. We are not punished for making mistakes, for having tried something worthwhile and failed.	3.3% N=1	0% N=0	10% N=3	13.3% N=2	23.3% N=7	6.7% N=1	36.7% N=11	60% N=9	20% N=6	6.7% N=1	6.7% N=2	13.3% N=2
18. Taking responsibility for your own learning and development is considered part of our jobs.	3.3% N=1	0% N=0	0% N=0	0% N=0	3.3% N=1	0% N=0	13.3% N=4	33.3% N=5	53.3% N=16	46.7% N=7	26.7% N=8	20% N=3

Appendix B
Differences in Responses between Heavy LI Users and All Faculty

Learning Organization Practices Profile Question	Percentage Agreeing	Percentage Disagreeing
1. We discuss trends and forces that drive current and future changes in our marketplace and industry.	All Faculty 80 LI Users 80	All Faculty 20 LI Users 20
2. We have a vision of ourselves as an organization in which learning and purposeful change are expected.	All Faculty 83.4 LI Users 93.3	All Faculty 16.7 LI Users 6.7
3. People have a broad understanding of our organization's structure, processes, and systems and how they are interrelated.	All Faculty 60 LI Users 40.1	All Faculty 40 LI Users 60
4. We are not afraid to share our opinions and speak our mind.	All Faculty 56.7 LI Users 66.7	All Faculty 40 LI Users 33.3
5. We have a healthy sense of "play" about our work; it's o.k. to enjoy our jobs.	All Faculty 93.3 LI Users 73.3	All Faculty 6.7 LI Users 26.7
6. We eliminate "we/they" mindsets; we cooperate and collaborate whenever possible.	All Faculty 56.7 LI Users 80	All Faculty 43.4 LI Users 20
7. We treat one another as adults—as people who can think for themselves and be responsible.	All Faculty 73.3 LI Users 86.7	All Faculty 26.7 LI Users 13.3
8. People are interested in and care for one another.	All Faculty 90 LI Users 100	All Faculty 10 LI Users 0
9. As our work group or project teams solve problems or create new approaches, we communicate our learning and results throughout the organization (through memos, presentations, e-mail, etc.)	All Faculty 60 LI Users 66.6	All Faculty 40 LI Users 33.3
10. Individuals and teams are encouraged to identify and solve problems.	All Faculty 70 LI Users 73.3	All Faculty 30.1 LI Users 26.7
11. People and groups are encouraged to analyze mistakes in order to learn how to do better next time.	All Faculty 70 LI Users 53.3	All Faculty 26.7 LI Users 46.7
12. We share our expertise and learn from one another through informal conversations and "storytelling."	All Faculty 83.3 LI Users 80	All Faculty 13.3 LI Users 20
13. We routinely experiment with new approaches to our work; we try out new ideas.	All Faculty 66.7 LI Users 66.7	All Faculty 33.3 LI Users 33.4
14. When we engage in problem solving, we consider the "ripple" effects that various solutions or actions may have throughout the organization.	All Faculty 53.3 LI Users 40	All Faculty 40 LI Users 60
15. Individuals' performance goals are clearly aligned with the organization's strategic goals.	All Faculty 36.6 LI Users 46.7	All Faculty 60 LI Users 53.3
16. People are recognized for being courageous, that is, for experimenting and taking appropriate chances.	All Faculty 36.7 LI Users 33.4	All Faculty 60 LI Users 66.7
17. We are not punished for making mistakes, for having tried something worthwhile and failed.	All Faculty 63.4 LI Users 80	All Faculty 36.6 LI Users 20
18. Taking responsibility for your own learning and development is considered part of our jobs.	All Faculty 93.3 LI Users 100	All Faculty 6.6 LI Users 0