

A Decade of User Surveys: Utilizing and assessing a standard assessment tool to measure library performance at the University of Virginia and University of Washington

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Introduction

The libraries of the University of Virginia (U.Va.) and the University of Washington (U.W.) have been pioneers in the development and utilization of ongoing library user surveys. U.W. conducted its first large-scale survey in 1992 and has since surveyed faculty and students at three-year intervals. U.Va. began in 1993 with a faculty survey and conducted a number of faculty and student surveys in succeeding years. The two libraries have not coordinated efforts to develop a single survey or use similar methodology and design, but their separate survey instruments have many common characteristics. Survey results have been used to improve services at both institutions and also constitute a rich tapestry of library use patterns and changing user expectations during a period of rapid transformation of the library and information environments.

More information about user surveys at the two institutions can be found at:

<http://www.lib.washington.edu/surveys/>

<http://staff.lib.virginia.edu/management-information/survey.html>

User Surveys

Library user surveys have become widespread in academic libraries during the past twenty years and have often been used as a tool to assess service quality, library performance, and user satisfaction. The Association of Research Libraries issued four "Systems and Procedures Exchange Center" (SPEC) kits on user surveys and studies between 1981 and 1994 (Association of Research Libraries, 1981, 1984, 1988, 1994). A substantial body of literature has developed on surveys and service quality, led by recent studies and reviews from such library educators and practitioners as Hernon and McClure (1990), Van House, Weil and McClure (1990), Hernon and Altman (1996, 1998), Nitecki and Franklin (1999), Hernon and Whitman (2001), and the extensive work done on

ServQUAL/LibQUAL by Cook, Heath and Thompson (2000) at Texas A&M. Rapid changes in library services and operations, demands for internal institutional accountability, and assessment expectations by external accrediting agencies have contributed to further development and application of user surveys within academic libraries during the past decade.

User surveys can be designed and administered in a number of ways. Self-administered surveys are often employed to reach a large number of potential respondents with a minimum of direct contact and cost. Individuals are given or sent surveys to complete and return and the responses turned into data that can be analyzed. Surveys can be mailed, distributed at designated locations, conducted by telephone, sent by electronic mail, or completed on the Web. Surveys can range from broad and comprehensive to those narrowly focused on specific services or activities. When properly designed and administered, user surveys can provide both quantitative and qualitative data directly from the target population. When sample or survey response is large enough and deemed representative of the population being surveyed, data and results can be used to generalize for the population as a whole. This ability to provide statistically valid results from a smaller group makes the user survey a very powerful tool. Surveying the user community on a regular cycle can also provide valuable longitudinal data and the ability to measure change over time.

In general, user surveys can be used to:

- Obtain direct responses to a series of questions from the community surveyed
- Identify user issues, concerns and needs
- Measure library performance from the user perspective, including satisfaction
- Acquire quantifiable data that can be statistically analyzed and generalizable for the larger population

- Improve or change services
- Increase library visibility and marketing
- Contribute to broader institutional assessment/ accreditation

Surveys can be designed to provide multi-dimensional user perspective on library performance through a series of questions that examines a specific topic in multiple ways such as:

- Use type and frequency
- Satisfaction
- Importance
- Priorities
- Written comments

Survey results can and should be used with other measures/user input such as counts, observation, and focus groups to provide this fuller perspective of user behavior.

Library Surveys at the University of Virginia

The University of Virginia is probably best known for its undergraduate liberal arts education. It is a state supported institution but strives to maintain a national reputation; a third of all students are from out of state. A total of 12,500 undergraduates and 6,000 graduate and professional students are enrolled.

U.Va. is a comprehensive research university offering doctoral degrees in 55 areas, but its best known graduate programs tend to be in the humanities as well as in certain professional programs, such as law and business.

SURVEY METHODOLOGY

The U.Va. Library has conducted six surveys since 1993. Separate, but similar, surveys have been done for faculty and students. The student surveys have usually asked graduate students and undergraduates the same questions, but the two groups have always been tallied separately.

There has been a certain consistency of questions to allow for longitudinal comparisons. In each survey respondents have rated (on a 1 to 5 scale) a sizable number of resources and services, and they provided an overall (1 to 5) rating of the library. In addition, respondents have always been asked to select their top priorities for library spending.

The first three U.Va. surveys were traditional paper and pencil instruments that were mailed to a random sample of students or faculty. The last three surveys (since 1998) have been on the World Wide Web. Persons selected for the sample receive an email or printed letter from the library asking them to go to a specific URL, enter a login and password, and fill out the surveys. Putting the surveys on the Web has

reduced costs considerably; there are no printing or postage expenses, and no labor costs for data entry. The U.Va. Library has worked to maximize the response rate, using follow-up messages and personal contact when appropriate. The undergraduate response rate has ranged from 43% to 50%, graduates from 53% to 65%, and faculty from 63% to 70%.

OVERALL RATINGS

The rating that receives the most attention at U.Va. appears at the end of the survey: "Please rate your overall satisfaction with the University Library." The results show significant improvement in faculty ratings. Graduate ratings are lower, and remarkably consistent. Undergraduates are less consistent, but currently give the Library a good mark.

Table 1: Overall Satisfaction (1 to 5 scale) University of Virginia Library

	1993/94	1996/98	2000/01
Faculty	4.09	4.26	4.41
Graduate Students	3.96	3.97	3.97
Undergraduate Students	4.01	3.90	4.07

Flexibility is one of the strengths of a user survey; one can examine and measure the responses of subsets of the population surveyed. At Virginia faculty subgroups vary in their perceptions of the Library, as is evident from their overall ratings:

Table 2: Overall Satisfaction with the Library. University of Virginia Faculty

	1993	1996	2000
Social Science Faculty	4.26	4.36	4.60
Humanities Faculty	4.27	4.35	4.48
Science Faculty	3.87	3.99	4.14
<i>Composite</i>	<i>4.09</i>	<i>4.26</i>	<i>4.41</i>

Two observations are apparent from these data. The ratings are improving for all faculty groups, and although the science faculty scores are improving, they are not closing the gap with humanities and social sciences.

ANALYZING THE RESULTS

Surveys can confirm anecdotal evidence. For example, faculty do not come to the physical library as often as they once did. In the 1993 survey 79% percent of faculty reported they visited a library at least once a week; in 1996 50% so reported, and in 2000 the tally was 51%. Between 1993 and 1996 the Library added a number of online services, such as bibliographic databases; at the same time, more faculty became computer savvy. More importantly, the Library instituted a delivery service for faculty. Books and periodical articles are now delivered to faculty offices at no charge and, as a result, faculty have less reason to walk to a library.

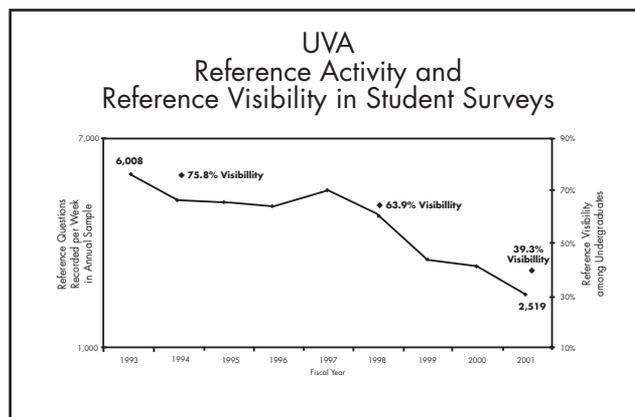
In contrast to faculty, U.Va. students continue to make heavy use of the library. In the 2001 survey 69% of undergraduates and 55% of graduate students reported spending at least two hours a week in the library. The U.Va. surveys have always tallied two scores for various resources, services, and facilities. The list of items has varied from survey to survey, but it has always contained more than 50 and fewer than 100 items.

One score measures satisfaction – a mean score of responses on a 1 to 5 scale. The other score, the “visibility,” is the percentage of respondents who answer the specific question. By calculating two scores one can compare the items from high to low in each category and group them for attention. “Low Satisfaction/High Visibility” items are obvious candidates for attention. “High satisfaction/Low Visibility” items may be candidates for instruction or publicity. It is also possible to compare items over time and between groups: Is satisfaction increasing or decreasing? What about visibility? One example: the visibility of the reference function has declined markedly among undergraduates. On the 1994 survey 76% of undergraduates gave a rating to “Answering questions in person.” In 2001 only 39% of undergrads rated this query: “Answering questions by phone, email or in person.”

The decline in visibility on the student surveys correlates with the decline in reference questions asked at the U.Va. Library. (See Figure 1) It is almost an exact

match: $r = .98$. The student survey has clearly corroborated a trend that has been widely observed but frequently disputed. Among undergraduates the decline in reference use is real and seemingly undeniable.

Figure 1. U.Va. Reference Activity and Reference Visibility



PRIORITIES

Although the wording has varied slightly, each survey has asked respondents to select their three highest priorities for library budget allocations. Users of the central library system have consistently selected books as their top choice.

Table 3: Priorities. University of Virginia faculty and students

	Faculty in 2000	Graduate Students in 2001	Undergraduates in 2001	Law Students in 2001
1st priority	Books	Books	Books	Physical Comfort
2nd priority	Journals	Electronic Journals	Computer Workstations	Computer Workstations
3rd priority	Electronic Databases	Print Journals	Physical Comfort	Books

Law students were included in the 2001 student survey for the first time. Their interests seem quite different from graduate students; law students value physical comfort much more than graduate students. In 2001 for the first time electronic journals and print journals were listed separately. Graduate students and undergraduates both gave a higher tally to e-journals.

QUALITATIVE DATA

Each of the surveys at U.Va. have included a few open-ended questions (“What is the greatest strength of the library?” “What should be improved?”) and an opportunity to make general comments. The comments provide color and context but are difficult to aggregate or summarize.

Comments are interesting to read; they always attract attention. But the difficulty in quantifying or summarizing them limits their utility. They are most useful when used as “sound bites” to illustrate points supported by other data. A reader will often remember the succinct comment long after the data have faded from memory.

Comments are also very useful when taken in smaller units and compared to the quantitative data from the same unit, e.g., faculty in the English Department, students who mark the Fine Arts as their primary library. The comments of fifteen faculty members from a single department can serve almost as a virtual focus group; they can provide a very nice reading of the department’s view of the library.

USING SURVEY RESULTS

The U.Va. Library surveys have offered support for a number of initiatives and improvements:

- Additional Resources for the science libraries (1994+)
- Major renovation of the Science and Engineering Library (2001)
- Revision of library instruction for first year students (1995)
- Redefinition and reorganization of collection development (1996)
- Initiative to improve shelving (1999)
- Undergraduate library open 24 hours (2000)
- Additional resources for the Fine Arts Library (2000)
- Development of electronic resources and electronic centers (1994+)

University of Washington Libraries

The University of Washington is a comprehensive research university offering the doctorate in nearly 100 fields. There were approximately 25,000 undergraduate students and 10,000 graduate and professional students enrolled in 2001 with about 4,000 faculty and thousands of other researchers and clinicians working at the University. Programs are especially distinguished in health sciences, biosciences and natural resources, computer sciences, and international studies. Located in the city of Seattle in the northwest corner of the United States, the University ranks first among public universities (and 2nd overall) in the amount of U.S. federal research dollars received, with nearly \$500 million dollars in fiscal year 2000.

SURVEY METHODOLOGY AND DESIGN

The catalyst for the development of a broad-based survey of faculty and students came from the UW Libraries first strategic plan in 1991 that called for a user-centered approach to services. Specifically, the strategic plan recommended that the Libraries “Develop and implement a study to identify user populations, their information needs and how well they are being met”. (University of Washington Libraries, 1991, p.15) The decision was made early in the design process to survey all user groups at the same time, distribute the survey through the mail in order to reach potential non-users, and provide similar survey content for each group to enable comparisons.

Table 4: Surveys distributed and returned. University of Washington

Survey Year	Faculty			Graduate Students			Undergraduates		
	Sent	Returned	Rate	Sent	Returned	Rate	Sent	Returned	Rate
2001	3720	1340	36.0%	1500	594	39.6%	2000	470	23.5%
1998	3750	1503	40.1%	1000	457	45.7%	2000	787	39.4%
1995	4400	1359	30.9%	1000	409	40.9%	2000	489	24.5%
1992	3900	1108	28.4%	1000	561	56.1%	1000	422	42.2%

The survey population included all faculty and a random sample of graduate and undergraduate students. While distributing the survey to all faculty would increase costs, it would also facilitate survey promotion and publicity, obtain sufficient number of responses to do analysis by academic subject areas, and foster positive political outcomes.

Survey questions were similar for faculty and graduate students, with about 75% consistency between faculty and undergraduates. Each survey contains a series of 12-18 questions, many with 5-point Likert scales (3 point scales were used in 1992). Approximately 25% of the questions change between surveys due to new areas of interest or the responses in the previous survey not providing useful information. Rapid changes in library services and programs during the 1990’s and usefulness of the data provided by some questions were prime factors in survey revision. However, there were a core group of questions in each survey that dealt with:

- Information sources needed for research, teaching and learning
- Reasons and frequency of library use
- Campus computer network connectivity
- Use of electronic resources
- Instructional needs and effectiveness
- Library unit use
- Satisfaction
- Services availability or satisfaction

Additional information on UW survey methodology, administration, and design can be found in Hiller (2001).

SURVEY RETURN RATE AND COST

In addition to the cover letter, second mailing (with survey form), and reminder card sent to survey recipients, the Libraries also used its extensive network of librarian liaisons to academic departments to encourage faculty response. The number of completed surveys returned by faculty is sufficiently large to perform statistical analysis of results at the school/college level and in some cases by academic department.

Distributing this type of survey to more than 7,000 faculty and students and then compiling results through data entry can be expensive. Direct survey costs (not including library staff time) are shown in Table 5. Costs were distributed in the following manner: printing 30%; mailing 30%; data entry 30%; other 10% (consultation, incentives). Staff time for the 1998 and the 2001 surveys are estimated at approximately 500 hours each, including analysis and reporting. While much of the cost increase is due to significant hikes in hourly wages, printing and mailing costs, it also reflects the necessity for more intensive efforts to encourage a high response rate, especially a second mailing and larger sample sizes for students.

Table 5: Survey costs. University of Washington

	1992	1995	1998	2001
Costs	\$ 10,000	\$ 14,000	\$ 19,000	\$ 22,000
Cost per survey received	\$ 4.78	\$ 6.20	\$ 6.91	\$ 9.15

Faculty and graduate student respondents by broad academic areas closely resembled the population as a whole. Indeed, the 2001 faculty respondent pool was a near match of the population. Health Sciences does have a larger proportion of faculty and graduate/professional students located away from the main UW campus and this may be a factor in the continuing under-representation of respondents from those areas.

Table 6: Faculty and graduate student population (P) and respondents (R) by academic area, 1998 and 2001. University of Washington

Area	Faculty 1998 R	Faculty 2001 P	Faculty 2001 R	Grad 1998 R*	Grad 2001 P*	Grad 2001 R*
Health Sciences	44.6%	48.6%	47.6%	28.0%	30.8%	28.2%
Science-Engineering	27.1%	26.2%	26.4%	28.2%	30.4%	30.5%
Arts/Business/Social Sciences/Humanities	24.4%	21.0%	22.6%	43.8%	38.8%	40.1%
Other	3.9%	3.7%	3.3%			0.2%

*Law students were not included in the 1998 survey, and are omitted from the grad totals above for 2001.

SURVEY RESULTS

Results from the UW Libraries surveys provide an effective record of changes in the way that students and faculty used library and information resources during the past decade. Survey results also documented significant variations within groups (i.e. between academic areas) and between groups (i.e. faculty and undergraduates) in some areas. Information from these surveys has been used extensively by the University of Washington Libraries to revise existing programs and services and promote new ones. Survey results showed:

- High satisfaction levels
- Shift towards remote use and increased importance of electronic resources
- Continuing importance of Libraries as place for students
- Increased complexity of finding and using information for teaching, learning and research

UW faculty satisfaction was unchanged from 1998 to 2001 but increased for both graduate and undergraduate students (see Table 4). A number of changes made during that period were targeted towards students. These included the opening of a 350 seat computer lab in the Undergraduate Library and keeping that library open 24 hours per day, extending hours at some branch libraries, initiating online holds and renewals as well as providing more bibliographic databases that were web-accessible and significantly increasing the amount of full text available to the desk-top.

Faculty satisfaction mean scores for three broad academic areas (Humanities-Social Sciences, Science-Engineering and Health Science) do not show significant variation between groups varying between 4.26 for those in the Humanities-Social Sciences to 4.37 for faculty in the Health Sciences. Graduate student satisfaction in 2001 was nearly identical to the faculty ranging from 4.24 in Humanities and Social Sciences 4.24 to 4.29 for Health Sciences students. Table 7 shows overall satisfaction by group since 1995 (the 1992 survey used a 3 point satisfaction scale) by mean scores on a scale of 1 (not satisfied) to 5 (very satisfied) and frequencies for those very satisfied (marking 4 or 5), satisfied (marking 3), and not satisfied (marking 1 or 2).

Table 7: Overall satisfaction. University of Washington

	Faculty			Graduate Students			Undergraduates		
	1995	1998	2001	1995	1998	2001	1995	1998	2001
Very satisfied	89.9%	91.3%	91.3%	89.9%	84.9%	91.4%	78.9%	78.5%	89.7%
Satisfied	9.5%	7.8%	8.1%	9.5%	13.5%	8.0%	19.6%	19.9%	9.6%
Not satisfied	0.9%	0.9%	0.6%	0.8%	1.6%	0.6%	1.5%	1.6%	0.7%
Mean Score	4.25	4.33	4.33	4.18	4.11	4.26	3.97	3.99	4.28

USE PATTERNS

There has been a clear and measurable shift towards remote use of library resources and services since 1992 and the examples below show how that use can be measured and assessed through the user survey. 1995 data showed that among faculty who used the library at least weekly, more were doing so remotely than visiting the library. That trend has continued to widen in subsequent surveys. Figure 2 shows the percentage of each group who responded that they had an account on the campus computer network in 1992 and 1995 and the percentage that had access to a computer that could search the Web in 1998. In 1992, nearly 48% of faculty and 46% of graduate students responded that they had searched the library catalog remotely with 20% of faculty and 10% of graduate students noting they did this at least weekly.

Figure 2: UW Computer Connectivity 1992-98

In 1992, nearly 48% of faculty and 46% of graduate students responded that they had searched the library catalog remotely with 20% of faculty and 10% of graduate students noting they did this at least weekly. By 1995 more than half the faculty were using library resources and services from a remote location at least weekly, and in 2001 54% of faculty and 56% of grad students were searching for full-text resources remotely at least weekly. This trend has continued among all groups with the largest increase now seen in use from home (Figure 3).

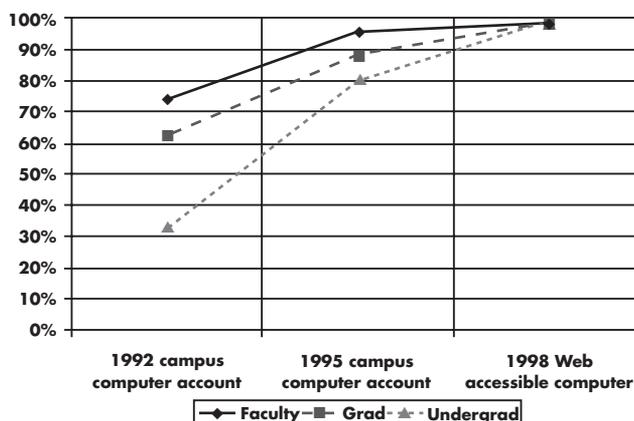


Figure 3: UW Remote Use of Library Resources and Services (use at least weekly)

There has been a consequent decrease in those who visit the library at least weekly at the faculty and graduate level (Figure 4). This decrease in physical visits is most pronounced in faculty from those academic areas that appear to have the most electronic content available. The percentage of science faculty who visited at least weekly decreased from 55% in 1998 to 44% in 2001 with weekly visits by those in the Health Sciences falling from 38% to 28% during that same period. However, undergraduate use remained relatively constant with about 67% visiting the Libraries at least weekly.

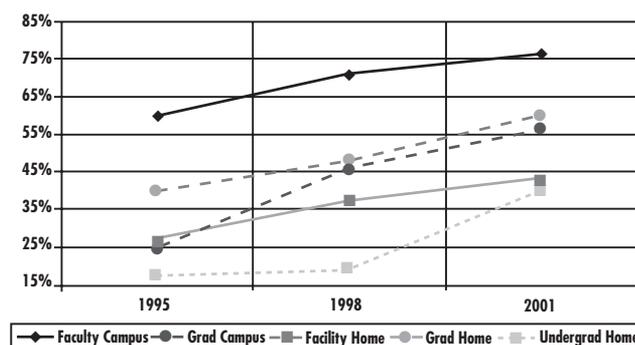
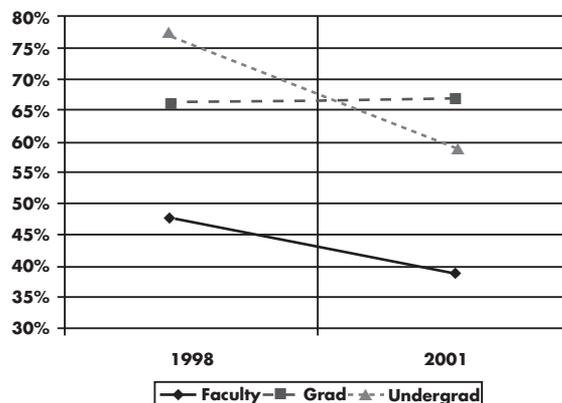


Figure 4: UW In-Person Library Use 1998, 2001 (% visiting at least weekly)

In 1998, about 60% of the faculty visited the library only to use resources while 50% of the undergraduates came just to use workspace or services. Figure 5 shows the dramatic change in in-library use categories between 1998 and 2001 among faculty and graduate students. These responses are validated by other data such as circulation statistics, in-library material use, number of photocopies made, and decline in reference activity.



USER PRIORITIES

Delivering full-text to the desktop was the overwhelming priority of faculty and grad students in 2001. Indeed, the priorities were identical for both groups. While maintaining the quality of the print collection remained high, it dropped from nearly 70% in 1998 to 57% in 2001. Undergraduate priorities tend to differ and be more focused on place and facility related areas, although the 2001 survey showed the best agreement among the 3 groups since 1992.

Figure 5: UW Changes in In-Library Use Categories Between 1998 and 2001 (% using at least weekly)

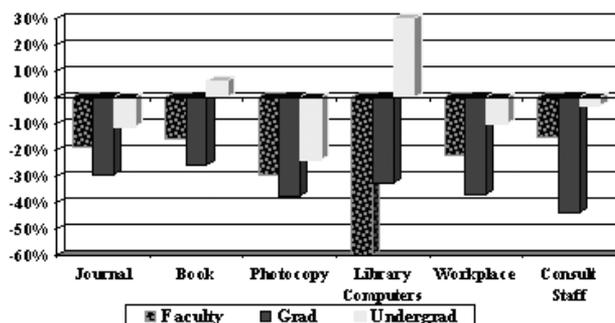


Table 8: Top priorities by group, 1998 and 2001. University of Washington

Priority	Faculty		Grad Students		Undergrads	
	1998	2001	1998	2001	1998	2001
Maintain quality of print collections	69.6%	57.4%	52.1%	53.2%	32.3%	34.3%
Deliver full-text to your computer	60.4%	73.4%	56.0%	72.7%	37.8%	53.4%
Provide electronic access to older journals		59.6%		61.8%		43.6%
Deliver bibliographic databases through Web	52.1%		40.0%		20.9%	
Increase library hours	17.0%	8.5%	37.6%	27.3%	38.5%	32.6%
Add more computers in libraries	8.6%	3.3%	19.9%	12.5%	45.2%	33.4%
Provide course reserves electronically	18.8%	23.7%	36.5%	37.5%	48.6%	51.3%
Preserve library materials from deterioration	40.0%	39.4%	35.0%	34.6%	30.5%	28.9%
Provide training in using library/Web resources	28.3%	22.6%	27.4%	18.6%	46.8%	24.7%

However, when we examine priorities by broad subject area among faculty we do see significant variation. Maintaining quality of the print collection is the overwhelming priority of faculty in humanities and social science disciplines, while the importance of full-text increased in the other areas while print importance decreased. Indeed, the gap among medical faculty between print and electronic widened significantly. Interestingly, as Table 9 shows, when we look at graduate students we find a similar response to faculty for those in sciences and health sciences but a different one from students in the humanities/social sciences where 60% said both full-text and maintaining the quality of print collections were priorities.

Table 9: Top priorities by academic area 1998 and 2001. University of Washington

Academic group and area	Deliver full-text to desktop		Maintain print collection quality		Preserve library materials		E-access to older journals
	1998	2001	1998	2001	1998	2001	2001
Faculty Health Sciences	71.5%	86.2%	63.3%	45.7%	33.7%	32.1%	64.8%
Faculty Science-Engineering	59.1%	72.5%	72.1%	60.3%	44.1%	42.5%	69.4%
Faculty Humanities-Social Sci.	43.5%	48.2%	76.1%	78.9%	49.5%	50.2%	38.6%
Grad Health Sciences	68.0%	85.3%	43.0%	42.9%	25.0%	23.1%	58.3%
Grad Science-Engineering	57.4%	78.6%	58.9%	54.3%	41.9%	36.4%	73.4%
Grad Humanities- Social Sci.	47.5%	59.6%	53.5%	59.6%	37.0%	41.3%	55.2%

Similarly, when we look at the importance of resource types by academic area (Table 10) we see a similar shift towards the importance of electronic journals – especially among faculty and grad students in the Health Sciences and Sciences.

Table 10: Importance of selected resource types by academic area 1998 and 2001. University of Washington (% marking 5 on a scale of 1 (not important) to 5 (very important))

Academic group and area	Books		Print journals>1980		Electronic journals	
	1998	2001	1998	2001	1998	2001
Faculty Health Sciences	31.8%	25.0%	84.4%	75.6%	41.3%	64.6%
Faculty Science-Engineering	58.3%	49.3%	86.8%	75.9%	35.0%	58.6%
Faculty Humanities-Social Sciences	84.0%	78.9%	82.7%	74.6%	26.7%	35.6%
Grad Health Sciences	31.3%	30.8%	88.3%	73.1%	52.3%	70.5%
Grad Science-Engineering	48.1%	36.4%	88.4%	68.8%	47.3%	65.9%
Grad Humanities-Social Sciences	68.0%	60.4%	73.5%	67.0%	27.5%	45.2%

USING SURVEY RESULTS

The results have been used to make a number of improvements and changes to library resources and services. These have included:

- Facility design and improvements focused on student needs (1992-)
- Performance measures instituted for re-shelving (1995)
- Hours expanded during interims, weekends, evenings (1995-2000)
- Undergraduate library open 24 hours (1998)
- Significant increase in number of library computers (1995-2000)
- Remote access to bibliographic databases (1992-)
- Emphasis on acquiring access to full-text resources (1998-)
- Survey results used by other campus units to develop instructional technology workshops

Conclusion

The user survey is a very valuable tool for libraries. It provides solid quantitative and qualitative data. It gives users a chance to speak directly about their library experiences. It is flexible instrument, adaptable for many purposes. It can be very useful politically; the library can exploit the results of a user survey to strengthen a case for more support from the university and from external sources.

While recognizing the utility of a user survey, one should also acknowledge the limitations of the tool. It records user perceptions, not actual performance. It is often time consuming and may be expensive. Changes in survey design and group composition may reduce the reliability of longitudinal comparisons. It is difficult to frame questions regarding complex issues; nuances are often lost in a mass survey.

The most important concern is the danger of survey fatigue. Because the user survey can be such an effective tool, there is a tendency to overuse it. If a library asks its customers to fill out too many surveys, it will lose their support. Each user who fills out a survey pays a cost, in time and convenience. The library needs to remember that cost, to show gratitude to the survey respondents, and to refrain from asking users to fill out a survey unless the information gained will truly be worth the many costs.

The user survey is most useful when its results are combined with other data. It can corroborate apparent trends, support proposed initiatives, or reveal hidden problems. It should be viewed as a very valuable tool, but only one tool in a whole array of data collection possibilities.

Survey results along with other user input and performance measures have been used at the University of Washington and the University of Virginia to change and improve library programs and services. They have served not only as a measurement of perceptions of library performance by faculty and students but have also revealed changing use patterns and priorities. The surveys have enabled the libraries at each institution to lead the campus community in providing more effective information access and service.

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